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Dealing With Complexity and Ambiguity: Learning to Solve Problems Which Defy Solution

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2010 No. 4



Centre for National Security Studies

THE STRATHROBYN PAPERS

A CANADIAN FORCES COLLEGE OCCASIONAL SERIES

The Strathrobyn Papers (ISSN 1192-9081) are published by Canadian Forces College as part of the College's outreach programme.

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Distribution

Each paper is published in print and electronic versions; it is available on the Internet at <http://www.cfc.forces.gc.ca/publications/strathrobyn>.

Inquiries regarding distribution, subscription, and change of address are to be made to the Information Resource Centre, Canadian Forces College at cnss@cfc.dnd.ca.

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Editorial Remarks

In 1993, on the occasion of the fiftieth anniversary of the Canadian Forces College, a series of occasional papers was launched. *The Strathrobyn Papers*, named after the original estate on which the College was established in 1943, were intended to present the research and thinking of the College faculty and other security and defence researchers.

At that time, only three papers were published before the series fell silent. While regrettable, that circumstance was perhaps understandable, particularly in hindsight. The nation and the Canadian Forces were by then moving deep into the peace dividend with a commensurate decline in interest in things defence. The Canadian Forces were in the throes of the chaos generated by the Somalia Inquiry and the strains of doing much more with a shrinking budget and strength. The College was shrinking as student throughput declined and as budgets were squeezed.

2008 marks the sixty-fifth anniversary of the College and circumstances have changed. The profession has reinvigorated itself, the nation has developed a keen pride and interest in its military, and the College has very definitely reversed course. The faculty has grown significantly: where there was just one civilian academic there are now almost a dozen security and defence specialists. Among military faculty, many have recent and multiple operational tours, and a similarly large number have advanced degrees in areas germane to the profession. Students are keen to develop their thinking and writing. After a 15 year hiatus, the time is right to relaunch *The Strathrobyn Papers*.

This first new paper looks at the history of the College, not in terms of bricks and mortar, but rather through a lens of the intellectual development in the senior officer corps – its focus is the design and conduct of senior officer education over the past 65 years and shows that generations of military leaders have been able to leave the College, having honed an ability to deal with the complexity which marks the defence and security challenges of their times. Upcoming papers will focus on the application of that intellectual capacity in dealing with contemporary problems. Subsequently, the series will expand to cover the full range of issues which challenge the profession of arms in Canada.

Colonel Randall Wakelam
Editor

Dealing with complexity and ambiguity: Learning to solve problems which defy solution

It matters little whether the Forces have their present manpower strength and financial budget, or half of them, or double them; without a properly educated, effectively trained, professional officer corps the Forces would, in the future, be doomed to, at the best, mediocrity; at the worst, disaster.

- General J.V. Allard, Chief of the Defence Staff, 1969¹

If one might rephrase General Allard, it could be argued that he was saying that regardless of the challenges placed before a professional military, an inability to deal with the unanticipated is a recipe for failure. For him, and for the author of the *Report of the Officer Development Board*, Major-General Roger Rowley, the existence of a properly prepared and educated officer corps was the basis on which success could be, if not guaranteed, then at least reasonably expected in any circumstance.² This paper looks at the history of senior officer Professional Military Education (PME) in Canada since the end of the Second World War. It argues that regardless of the type or intensity of conflict, broad education which focuses on developing an individual's intellectual capacity to deal with complex ambiguous situations is the cornerstone of effective performance. Beginning with a review of PME programmes during the Second World War, the paper goes on to examine what educational concepts were advanced during the Cold War and post-Cold War periods. The transition from the Cold War to the current, and relatively less stable, period suggests a fairly clear dichotomy between the PME needed to deal with conventional operations and the shift in content necessitated by current operational and strategic challenges, but the paper argues that this is not necessarily the case and that the professional and intellectual skills and attributes which are important to institutional effectiveness are common across the spectrum of conflict.

The first part of the paper reviews two major reforms to the Canadian Forces and to PME in Canada. The first of these reforms was the complete reconceptualization of the profession of arms and its education needs in the late 1960s, when the Canadian navy, army, and air force were unified by an act of Parliament. The second case examines reform which began in 1993 and continues to occur as much from professional introspection as from the end of the end of the Cold War, which was itself a major catalyst for PME reform. While only the second of these PME reforms touches the time frame

¹ Canada, Department of National Defence, *Report of the Officer Development Board Vol 1* (Ottawa: DND, 1969), iv. Hereafter *ODB Report*.

² This construct has been similarly argued by Dr S.J. Harris of the Directorate of History and Heritage, DND. He argues that since a military is not often at war it must spend long periods in study in order to be prepared for any future conflicts. "The competent army is one which [is engaged in] critical study and thinking..." Stephen J. Harris, *Canadian Brass: the Making of a Professional Officer Corps* (Toronto: University of Toronto Press, 1986), 4.

of current asymmetric threats, both typify the institutional challenges and paradigm shifts which the current security environment represents. The challenges which began in the early 1990s are still underway and are marked by repeated episodes of complexity, ambiguity and even relative chaos, have changed the way senior leaders within the profession of arms view their duties and, equally, their professional education requirements.

The second part of the paper looks at practical questions and challenges of conducting graduate liberal arts education programmes in a military institution. It exposes the tension between the policy decisions made at the highest levels of the profession and the day to day application of those policies. More particularly, this part of the paper examines the practical application of the appropriate and necessary learning methodologies and the frictions created as the Canadian Forces College continues to transform itself from a classic staff college to a school of higher learning.

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Prior to 1939, the Canadian services sent officers to the United Kingdom for staff and defence college programmes. Only a handful of officers attended each year, but these were sufficient for the needs of Canada's very small permanent military. From the outbreak of hostilities until 1942, Canada continued to rely on the British for war staff training. In that year, steps were taken to establish Canadian Army staff courses, and in late 1943, the Royal Canadian Air Force War Staff Course opened in Toronto. In 1945, both programmes were retained and expanded to pre-war British lengths, two years for the army and one year for the air force.³

The army programme focused on the tactical level of war up to the division level, but the context was more in keeping with what we would call the operational level, and the pedagogical thrust was clearly towards developing intellectual flexibility. Describing the programme, the Commandant, Brigadier W.A. 'Bill' Milroy, stated that students would graduate with a "thorough understanding of the principles and techniques" of land operations, including "specialized staff skills, a knowledge of military management, and the functions of the staff." The latter included logical and critical thinking as well as communications skills. Graduates would also gain a grasp of national security issues in their broadest sense. Finally the course would include ample opportunity for the practice of staff skills in solving "typical command and staff problems encountered in war and situations short of war throughout the world, with emphasis on the divisional level and below."⁴ In sum, the Army conducted a programme clearly oriented to developing staff officers for employment with large field force organizations while at the same time offering a glimpse at the geo-political roots of defence and a grounding in critical thinking.

³ Harris, 192-209.

⁴ Brigadier General W.A. Milroy, DSO, CD, "The Course," *Snowy Owl* 4/2 (1967-68), 2-3.

The air force had been on the same track even during the war. As early as August 1943, Air Commodore G.E. Wait, the Commandant of the air force college at Toronto, wrote that while his course focused on staff work, the programme of studies also included lectures given by well-qualified visiting speakers, both officers and civilian officials, on a variety of topics, including other services, allied and enemy forces, matters of strategic direction of the war, and war production. "Only by such a means," was it noted, "can the students be given the broader and more authoritative outlook that they will require in staff positions."⁵ Wait's overall philosophy was fairly clear: staff officers, although expected to produce standardized staff products, needed a healthy intellectual capacity and inquisitiveness and a breadth of knowledge which allowed them to situate their work in a broader security context in order to best develop those products. The connection to liberal education, while implicit, was apparent.

At the end of hostilities, Wait proposed a much more explicit educational model.

The [proposed] Course... is a comprehensive one, and will be *conducted on University lines*. The course is designed to make an officer *think straight* and to *get his thoughts down clearly on paper*. The amount and depth of his thinking will depend entirely upon himself. There will be little use for anyone to come on the Course expecting to do only the bare minimum of work and to get by. The candidate must want to make the Service a career; want to take the Course; *have a high level of ability to learn*; and have a reasonable education (minimum Senior Matriculation). Given student officers of this calibre, the 6 months Course should be of great value to the R.C.A.F.⁶

This approach was still central to the air force programme a decade later, as evinced in the foreword to the 1958-9 calendar which stated: "You are being given the opportunity to learn more about the Services and their relationships to each other, and as well to read, write, speak and think in such a manner as to improve your professional competence and hence your usefulness to the Air Force."⁷ The curriculum continued to reinforce the themes of effective thinking and communications; general knowledge of the air force and of world affairs; an understanding of personnel matters and of leadership; and a firm grasp of those issues involved in generating, sustaining and employing air forces in both multi-service and international scenarios.⁸ The concluding entry in the calendar reminded students of the

⁵ William R Shields and Dace Sefers, *Canadian Forces Command and Staff College: A History 1797-1946* (Toronto: Canadian Forces College, 1987), 4-16. This document was part of a Canadian Forces College History project.

⁶ Shields and Sefers, 4-28. Emphasis added.

⁷ Canada, Department of National Defence. *R.C.A.F. Staff College Calendar Course 23: 1958-59*, "Introduction." Hereafter *Calendar Course 23*.

⁸ *Calendar Course 23*, "Staff Training Studies."

philosophy of the College, one which continued to emphasize Wait's initial acceptance of education as an equal and increasingly senior partner to staff training.

The RCAF Staff College makes no attempt to graduate experts in a particular field, *nor does it expound any easy universally applicable doctrines*. Rather by providing its graduates with an *education of the broadest scope* and by *developing habits of clear thinking*, it attempts to provide them with the breadth of interest, *openness of mind, reasoning ability, and a broad view of their Service and profession*, which will enable them to *master the specific tasks of any appointment and to make sound decisions in any situation*.⁹

In passing, it should be mentioned that the navy did not apparently see the need for a domestic staff college and tended to focus on training of technical and tactical competencies rather than broad education.

It was also intended to open an operational-strategic level programme – in effect a joint war college, which would help maintain the expertise so hard won during the war. After some staff work and reflection the government decided instead to open its own defence college – the National Defence College (NDC). Opening in 1947 the NDC was in effect a Canadian version, more or less, of the Imperial Defence College, with a clear geo-strategic focus.

With this education structure and a largely common educational philosophy in place, the Canadian military entered the Cold War and over the next 20 years embarked on a series of significant UN peacekeeping and policing operations – what might today be described as stability operations – including Korea, Kashmir, the Suez, the Congo and Cyprus. During these years, Canadians played critical roles in the definition and development of the North American Air Defence Command and NATO agencies and field formations. It was not a quiet time for the Canadian services. One might reasonably infer from this range of operations that the education philosophy in place was adequate to prepare senior officers for a wide gamut of complex and ambiguous challenges.

In the mid-1960s, the government of the day decided to embark on an organizational transformation of seismic proportions. It had long been argued that there were systemic economies to be achieved by integrating certain functions of the services, particularly in the support and administrative domains, but now the Minister of National Defence, Paul Hellyer, convinced his cabinet colleagues that the three services could be unified into a single Canadian Armed Forces.¹⁰ After the shock of this decision had been absorbed, the senior leadership under General Jean-Victor

⁹ *Calendar Course 23*, "Conclusion." Emphasis added.

¹⁰ See for example J.L. Granatstein, *Canada's Army: Waging War and Keeping the Peace*, (Toronto: University of Toronto Press, 2002), 352-8.

Allard embarked on the necessary reforms, one of which was to determine the demands that would be placed on the unified Canadian Forces. From the review of officer professional development commissioned during the reform process, it would then be possible to confirm the professional attributes of the officer corps and activate the necessary PME structure to generate and develop these officers. The task was entrusted to Major-General Roger Rowley, like Allard a combat veteran of the Second War.

Rowley staffed the Officer Development Board with representatives of the three former services and set about to define the current and future security environment. Military roles in this regard fell into four broad categories: home defence, including airspace and shoreline surveillance and control, as well as an ability to deal with minor lodgements; maritime defence, in particular with respect to defeating missile submarines and also escorting expeditionary forces; meeting NATO commitments for land and air forces in Europe; and United Nations operations, normally through the provision of observers, but with the possibility of deploying peacekeepers or resorting to armed intervention.¹¹

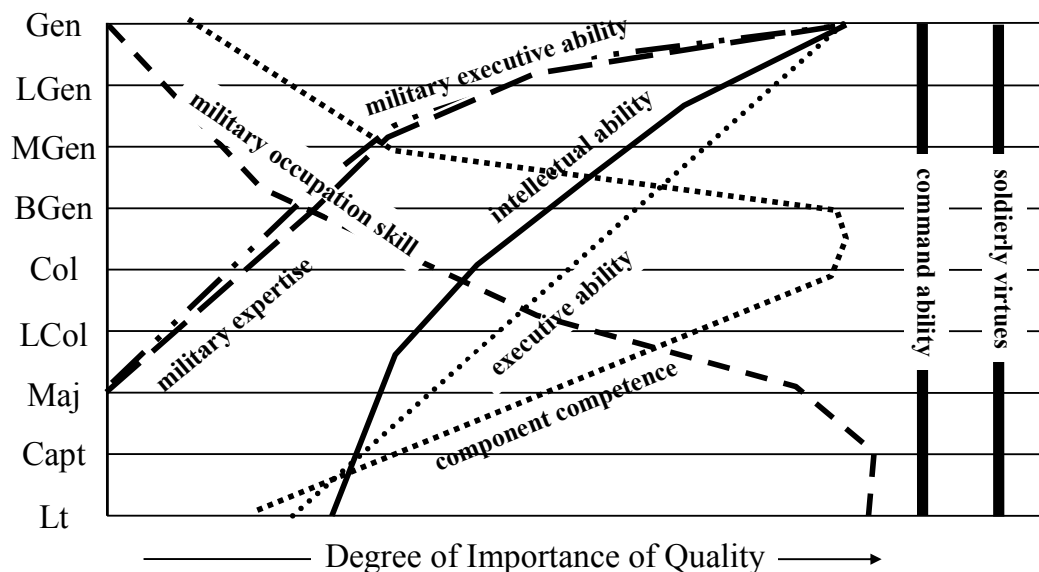
From this range of roles, Rowley composed a suite of those professional qualities that an officer would need in order to be effective in any situation:

- the soldierly virtues (classic qualities including loyalty, honour and courage; in short, a professional ethos)
- command ability (the ability to command groups of subordinates commensurate with rank)
- branch and specialty skill (infanteer, aerospace engineer, logistician, etc)
- list competence (the ability to employ large forces for sea, land, air or support operations; at this level officers would not be expected to be expert in other than their own 'list') [what we would call component competence]
- military expertise (knowledge of the capabilities of armed forces (both domestic and foreign) and an ability to provide strategic-level military advice to government)
- intellectual capability (native intelligence for use in grasping concepts, reasoning logically and solving problems)
- executive ability (capacity to deal with problems and decisions that "defy solution")
- military-executive ability (the context in which the officer will apply his executive ability and military expertise and give his advice to government)¹²

¹¹ *ODB Report, Vol 1*, 16-18.

¹² *ODB Report, Vol 1*, 39-41.

In the final report, he presented these qualities both in word pictures and visually. The latter representation took the form of a simple, yet elegant, graph which showed that, while two of the attributes were constant, the others varied in importance with rank (and appointment). Command ability and soldierly virtues were always to be considered of utmost importance to the effectiveness of the officer (and arguably the organization).



Rowley saw the other qualities interacting to varying degrees at different points in an officer's career. For example, military occupation skills, such as commanding an infantry platoon or a boarding party, became less important as an officer advanced in rank, while at the same time military-executive ability, at its highest level, the ability to advise government on matters of national security, would be vital for a general or admiral. Intellectual and executive ability, the latter specifically defined as a capacity to resolve problems which "defy solution," were seen as important even for young officers. Whether these qualities were unique to the Canadian military or to militaries generally, or whether they were more broadly applicable to all professions (with reference to the military replaced by other professional competencies) is certainly an intriguing question. What appears reasonably certain is that Rowley had found a way to inclusively summarize the qualities common to all officers in the Canadian context.

Having identified these officer qualities the Board was then able to derive a series of "guiding precepts" for an officer development system. Among other things, the new system must:

- prepare officers to contribute to a Canadian national strategy

- impart the Canadian military ethic
- remain in consonance with scientific, technological, sociological, economic, educational, military and strategic changes
- accept the baccalaureate as the basic educational level for entry to the officer corps
- ensure that courses taught at the military college are relevant to the technical and operational requirements of the military
- provide the appropriate professional-development course material at the right stage to assist the officer in the orderly development of the qualities demanded of him at succeeding levels
- encourage original research on military matters within the officer corps
- permit no degradation of operational effectiveness

To attain these aims the system must, in addition, be efficiently organized, well integrated and effectively commanded.¹³

From this point, Rowley went on to define the structure and functions of the various schools and colleges which would make up his "Canadian Defence Education Centre" (CDEC), which was intended to be a single point 'officer factory' providing all the academic and professional education needed for the officer corps.¹⁴ Within the CDEC, the Canadian Defence College would offer a staff school for junior officers, absorb the existing army staff college and create a truly joint command and staff course on the basis of the RCAF Staff College. He also proposed two new programmes of study. This first he titled the Advanced Military Studies Course (AMSC), defining it as a 10-month programme "at the lieutenant-colonel level to broaden list competence and emphasize military expertise, particularly through the study of high-level military operations". He added another new programme which would replace the National Defence Course. This National Security Course was intended to "to develop to the fullest extent possible an awareness of the national and international environment and thus to impart military-executive ability."¹⁵ That awareness could not have been instilled without exposing students to the complexities of the Cold War geo-political landscape.

Rowley emphasized that the professional development process would ensure that individuals enhanced not just skills and knowledge, but that they also had the opportunity to cultivate of logical and ethical thought.¹⁶ Also, PME for commissioned officers "must [include] a post-graduate programme ... [fulfilling service needs for special and non-specialist officers] with a fairly extensive understanding in one or other of the many disciplines that are part

¹³ *ODB Report Vol I*, 46-7.

¹⁴ *ODB Report Vol I*, iv.

¹⁵ *ODB Report Vol I*, 98.

¹⁶ *ODB Report Vol I*, 98.

of the corpus of knowledge that the military profession embraces.”¹⁷ Together, the content, intellectual rigour and ethical context would contribute to the formation of military professionals who had both the openness of mind and also moral compass to make their way effectively through the most demanding circumstances.

Rowley’s concept of a CDEC was not implemented for a variety of largely political reasons, nor was the AMSC instituted. A loose confederation of pre-existing programmes and agencies was instituted and the air force staff college did become a joint institution, the Canadian Forces College.¹⁸

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If one shifts ahead some 20 years to the end of the Cold War, the Canadian Forces found itself in, if anything a more chaotic period. At the strategic level, in 1987 the government had released a decidedly expansionist Cold War white paper which called for unprecedented increases in both regular and reserve elements of the CF and the infusion of massive funds for equipment replacement and capability enhancements.¹⁹ Then the peace dividend hit and personnel and equipment programmes went into relative freefall. Of course there was no peace dividend, with 1990 marking Canada’s operational involvement both in the first Gulf War, while at home extraordinary levels of aboriginal unrest led to armed standoffs and the deployment of a brigade-sized task force. These events were quickly replaced by the dissolution of the Yugoslav state and again unparalleled levels of Canadian involvement, including incidents of direct combat as well as the deaths of several peacekeepers caused by mines, improvised explosive devices, and accidents. These operations and others, piled on top of the strategic retrenchment, might have been manageable, but the profession unfortunately hit a reef of ethical crises. In 1993, Canadian peacekeepers beat to death a detained Somali teenager. Subsequently the chain of command, up to the national level, tried to downplay the event. This led ultimately to a public inquiry which found problems with decisions on how the mission had been mounted and conducted.²⁰ Other equally disturbing incidents followed in the former Yugoslavia. Meanwhile, Canadian General

¹⁷ ODB Report Vol 1, 99.

¹⁸ The plan was attacked by proponents of the Royal Military College, Canada’s original cadet college as the latter would have closed its doors under the ODB construct. There was also limited support from the Minister who reminded Rowley’s successor that the desire of the times was to reduce the military presence in the national capital rather than increase it as the CDEC would have done. See Randall Wakelam “Officer Professional Education in the Canadian Forces and the Rowley Report, 1969” *Historical Studies in Education/Revue d’histoire de l’éducation*, vol 16 no 2 (Fall/automne 2004), pp 287-314.

¹⁹ Canada Department of National Defence, *Challenge and Commitment: A Defence Policy for Canada* (Ottawa, 1987).

²⁰ These events contributed to the replacement of two Chiefs of Defence Staff and the protracted embarrassment of the profession during the extensive board of inquiry. See Commission of Inquiry into the Deployment of Canadian Forces to Somalia, *Dishonoured Legacy : The Lessons of the Somalia Affair, Report Of The Commission Of Inquiry Into The Deployment Of Canadian Forces to Somalia*, Ottawa: Public Works and Government Services Canada, 1997

Roméo Dallaire in 1994 found himself in charge of a seemingly hopeless task in trying to prevent the Rwandan genocide,²¹ and two years later a Canadian-led mission to the Congo sputtered and fizzled. The Canadian Forces were caught in what amounted to a professional perfect storm and, in the eyes of many Canadians, the vessel was foundering. When faced with problems which defied solution, the best efforts of many leaders simply did not seem adequate when put under public scrutiny.

In response to the crisis in the Canadian profession of arms, the Minister of National Defence in 1997 sought advice from a number of respected Canadian academics as to what should be done to fix the profession. The Minister's report to the Prime Minister detailed literally dozens of correctives and also saw the establishment of a Minister's Monitoring Committee whose main functions were to observe and report on the restructuring of the reserve forces and reforms to officer professional education.²²

The profession itself had already embarked on a series of initiatives to set right its PME system as early as 1994. That year had marked the nadir of officer PME. The federal budget, and not the concurrently issued Defence White Paper (replacing the plan of 1987), announced the closure of two of the countries three cadet colleges as well as the staff school and the National Defence College as part of a plan to reduce "surplus infrastructure".²³ The same year saw the convening of a Rowley-style board to set the profession back on its feet: the Officer Professional Development Board relied heavily on Rowley for much of his seminal thinking.²⁴ By early 1997, the senior leadership of the Forces had approved the creation of an AMSC and a National Security Studies Course (NSSC), the former for colonels and naval captains to prepare them for operational-level appointments, the latter for strategic-level posts.²⁵ More will be said about the design development and conduct of the AMSC later in the paper.

Much more work remained to be done in reshaping the officer corps, and this took place within a team led initially by Lieutenant-General Dallaire, who had by 1998 been appointed to the *ad hoc* position of Special Advisor to the CDS for Professional Development. The series of policy statements produced under the title of *Officership 2020* defined the context within which the CF would operate in the early 21st century and further defined the salient

²¹ His personal experience has since been captured in Roméo Dallaire, with Brent Beardsley, *Shake Hands with the Devil : the Failure of Humanity in Rwanda* Toronto: Random House, 2003. A feature film of the same name has been released in 2007.

²² Hon. Douglas M. Young, *Report to the Prime Minister on the Leadership and management of the Canadian Forces*, (Ottawa : Dept. of National Defence, 1997).

²³ Canada, Department of National Defence, *National Defence Budget Impact 1994*, (Ottawa: 1994), 7-9.

²⁴ Canada, Department of National Defence, *Report of the Officer Development Review Board*, Ottawa: 1995.

²⁵ The author was one of three designers for these two courses and subsequently led the development team which fleshed out the curriculum for the first AMSC. See Randall Wakelam "Senior Professional Military Education for the Twenty-First Century" *Canadian Defence Quarterly*, vol 27 no 1 (Autumn 1997): pp 14-18.

characteristics required of the officer corps. The operating environment was characterized by an increasing “complex and ambiguous” “global security environment”, a need for technical sophistication to “dominate the battle-space physically and intellectually”, a complex societal framework requiring stiff “competition for the best and brightest Canadian citizens”, and a period demanding more “efficient and transparent resource management.”²⁶ To meet these challenges, the officer corps would, in addition to applying military force, sound leadership and high professional standards, have to be capable of critical thinking, embracing and managing change, and creating and participating in a learning organization. Once again, the message to the profession was clear: change and ambiguity were constants, and intellectually acuity and flexibility were essential for the health of the profession and, ultimately, the security of the nation.

In looking specifically at ‘strategic leaders,’ *Officership 2020* began to use the notion of competencies, borrowing the concept from the Public Service of Canada. This in turn led to the development of a *Professional Development Framework* which was published in late 2006 and which in part called for the reformulation of officer professional development.²⁷ The *Professional Development Framework* briefly lists the challenges facing the Canadian Forces, as well as the broad traits needed for effective leadership:

... the effect of the general renewal underway since the mid-1990s; the expanding range and increased frequency of operational missions and tasks; the presence of more military and non-military partners in peace support operations; a public more aware of and reactive to military affairs; and changes in society and the social make-up of the CF. Numerous scholars, defence analysts and defence scientists listed significant challenges for the 21st century including poor Canada-US relations, emerging technology, force restructuring, and budgeting/resourcing for military transformation. These issues all exist within the broad spectrum of new security threats, failing states, pandemics, migration, religious extremism and narco-cartels.²⁸

The framework goes on to distil the necessary leadership competencies down to five streams – expertise, cognitive capacities, social capacities, change capacities and professional ideology – and sees them having different characteristics and emphasis over the course of an officer’s career. Much like

²⁶ These themes were repeated in many *Officership 2020* publications. See for example, Canada Department of National Defence, *Canadian Officership in the 21st Century: Detailed Analysis and Strategy for Launching Implementation (Officership 2020)*, (Ottawa: 2001).

²⁷ Robert W. Walker, *Canadian Forces Leadership Institute Technical Report 2006-01 The Professional Development Framework: Generating Effectiveness in Canadian forces Leadership*, (Kingston: CFLI, 2006).

²⁸ Walker, *Professional Development Framework*, 9. Walker drew these notions from a range studies done by Karol J Wenek, a researcher for CFLI and long time military psychologist and HR specialist. Among these were “Institutional Challenge and Change in the 21st Century: The Road Ahead for Canadian Forces Leadership”, Presentation at Armed Forces and Society (IUS) Conference, Kingston, Canada, October 2002.

the Rowley model, none is fixed; unlike the Rowley model, none tend to tail off with rank and duties.²⁹

	Expertise	Cognitive Capacities	Social Capacities	Change Capacities	Professional Ideology
Senior	Strategic	Creative Abstract	Inter-Institutional	Paradigm Shifting	Stewardship
Advanced	↑	↑	↑	↑	↑
Intermediate					
Junior	Tactical	Analytical	Inter-Personal	Open	Internalize

While these PME reforms were taking place, Canada continued to participate in a range of actions across the world, and since 2002, has had land, maritime and air forces engaged in operations in South-West Asia. In that theatre, the CF has been involved in extensive combat operations and has suffered the first combat deaths since the Korean War. At the operational and strategic levels, senior CF leaders have contributed both to the formulation of the NATO campaign plan³⁰ and have provided advice to the Canadian Government on the most appropriate ways and means to contribute effectively to that campaign. Those ways and means have led to the definition of a Defence, Diplomacy Development and Commerce (3D + C) strategy where all elements are seen as integrated tools in Canada's response.³¹ To be clear, Canada is using a tailored, and not always military, response in helping resolve the problems and threats facing Afghanistan.

That multidisciplinary approach to campaigning – an ability to find solutions to the complex and the ambiguous – has been implicit in the learning outcomes of PME programmes at the Canadian Forces College for many years and is now an explicit and growing facet of the curriculum. The College's Commandant, Brigadier-General David Fraser, has commanded the Multi-

²⁹ Walker, *Professional Development Framework*, 31. The figure depicts the four leader levels in the vertical and the five leader elements horizontally.

³⁰ See for example General Rick Hiller and Howard Coombs, "Planning For Success: The Challenge of Applying Operational Art in Post-Conflict Afghanistan", *Canadian Military Journal*. Ottawa: Autumn 2005. Vol. 6, Iss. 3. The paper is available at <http://www.journal.forces.gc.ca/vo6/no3/doc/thouth-pensee-eng.pdf>, accessed 10 November 2010.

³¹ See Canada, Department of Foreign Affairs and International Trade, *Canada's International Policy Statement: A Role of Pride and Influence in the World* (Ottawa: 2005). The document is divided into four sections: *Defence, Diplomacy, Development and Commerce*. <http://www.international.gc.ca/cip-pic/documents/IPS-EPI/overview-survol.aspx>, accessed 10 November 2010.

National Brigade (Regional Command South) in Afghanistan, and has also served in Bi-National Planning Group in Colorado Springs. He has a full understanding of the demands of the post-9/11 security paradigm. General Fraser has indicated that one of his major concerns is that graduates of the College's programmes "avoid the mental trap of being afraid to deviate from the plan. They must know how to design and use a plan as a starting point and know how to adapt it as the situation evolves.... The overall intent [of our programmes] is to foster a high degree of mental agility."³²

Looking back over the past 65 years and specifically at these two major reforms – transformations, perhaps – what can one conclude about Canada's PME philosophy?

From 1939 to the present, the Canadian Forces have been engaged in all manner of operations from general war to humanitarian assistance, usually in an expeditionary setting, but also domestically. Much of what the military has been called upon to accomplish has not been predictable and has often occurred with a high degree of urgency. To provide the intellectual capacity to deal with this range and depth of challenge, the PME philosophy has acknowledged the need for an awareness of contemporary issues and doctrine, but has put equal emphasis on developing an individual's ability to deal with complexity and ambiguity. Building and conducting courses and programmes which foster the development of that ability has not always been easy and is the focus of the balance of the paper.

The design and development and conduct of the AMSC in the mid-1990s provides an example of the challenges faced in marrying, what is for all intents, graduate-level education with the prescriptive content defined by a needs analysis based on the Officer General Specification, the latter defining all tasks, and associated skills and knowledge required of the officer corps. At that time, the normal delivery strategy of the Canadian Forces College, for its Command and Staff Course, was a preponderance of lectures complemented by some discussions and reinforced by a limited number of case studies, individual writing projects, visits and command post exercises. While there were ample occasions for the students to express themselves, the learning environment was largely passive in nature – it was possible to pass the programme without much original thinking. Exacerbating the situation was the reliance on the use of generalist Directing Staff to work with the students in the classroom and to do the assessment. The Directing Staff were expert in their former warfare specialties, but simply did not have the depth and breadth of expertise needed to be effective teachers and assessors across the range of topics included in the 10-month curriculum. The need for highly effective faculty had already been noted both by the RCAF War Staff Course and then by Rowley. The latter put not too fine a

³² Comments by BGen D.A. Fraser to faculty at CFC, Sep 2007.

point on stating that without qualified faculty in the classroom discussions rapidly devolved to “mutual exchanges of ignorance”.³³

The design team for the AMSC saw this as a critical weakness in the College’s educational strategy, one which could not be repeated in what was to be an essential course of study for warfighting commanders. It was, therefore, decided that a graduate school delivery methodology would largely replace the approach used for the more junior programme. The lecture-discussion, a concept happily borrowed from senior British military courses, was adopted as a more active way of presenting material; it had the benefit of allowing students to immediately debate impressions of a lecturer and the topic, and to then return to that lecturer with well-formulated questions. The first iteration of the AMSC also included seminar papers, students being required to develop two graduate-quality term papers and present and defend them before their peers. The seminars and papers were assessed not by the Senior Directing Staff, but by subject matter experts, who, like graduate faculty, were indeed expert in the topic and guided the students along a viable path. Case studies were devised which, in addition to using subject matter experts, provided the students with primary documentation, where available; the cases were mature historical examples which ensured that adequate literature was available from which to do credible analysis. The scenarios covered a range of operations from general war to more limited campaigns and also peace support operations. Finally, planning exercises were a practitioner-rich environment. Students were given retired operational commanders as mentors (a notion this time borrowed from the US Joint Forces Staff College), mentors who were not shy about offering constructive criticism, and a range of current practitioners to represent the experts that one would normally expect to find on a staff, or in-theatre, particularly in the case of representatives from other government departments and non-governmental organizations.³⁴

The overall intent of the AMSC’s pedagogy was to work the students hard, such that they acquired a degree of mastery of the topics, by working to analyse the material provided and frequently to synthesize or evaluate concepts and events. It was expressly intended that the students would achieve levels of learning in the upper range of Bloom’s Taxonomy of Learning; that is, analysis, synthesis and evaluation. Just knowing or doing was not sufficient for these students. While the range of material covered was defined by the complexity of warfighting at the operational level, the key concepts were not only presented, but they were debated and challenged as one might expect to find in a graduate setting. When the concept was presented to General Dallaire, who was then the senior education authority within the CF and who could also compare the curriculum with his experiences as a student in the United Kingdom as well as his personal

³³ *ODB Report Vol 1, Annex M.*

³⁴ Canada Department of National Defence, *CFC 203 - Advanced Military Studies Course Syllabus Course 1*, (Toronto: 1998).

experiences in Rwanda, he was happy with both the content and rigour of the plan.³⁵

The successes and failures of the AMSC a decade ago have now played into the development of a new programme – the National Security Programme – which seeks to blend the content of both the AMSC and NSSC, while at the same time in essence adopting the name from Rowley’s National Security Course. This new programme has been defined from the professional learning outcomes established for the pre-existing courses so that no professional development is lost. Conversely, the delivery paradigm is now fully that of graduate education: there are three terms one for global security and governance issues, one for strategic leadership and resource management, and a third for command and campaigning at the operational level. Within each term, students take core courses, which run a typical 40 class hours. Each course is run by a qualified civilian or military instructor. Military students do all three terms, while civilian executive public servants may opt to take electives rather than the operational courses. All students complete electives of their choice and those seeking a Master of Arts through the Royal Military College of Canada complete a major research paper. As was the case a decade ago, the intent is to have students work hard to increase their knowledge and their intellectual capacity to deal with complex topics.

The notion of graduate-level education is not a recent whim. Rowley had talked about it, as had more recent officer development studies. The officer corps, while not embracing the concept without some grumbling, was prepared to see professional programmes change their methodology so that graduate credentials could be earned. Since 2002, the Command and Staff Course has included the option for an accredited professional Master of Defence Studies for qualified students³⁶; more recently the equivalent distance learning programme (formerly for Reserve Force officers, but now expanded to include both Regular and Reserve personnel, as well as foreign reservists) has been restructured to permit the awarding of graduate credits. College leadership is quick and correct to point out that the graduate degree is not the aim. A mature intellect, capable of dealing with the professional challenges of the post-Cold War world, is the target.

Indeed, the present day international context is not unlike the uncertainty faced by Canada’s Services during the early Cold War of the 1940s and 50s and by Rowley at the end of the 1960s. Yet, there are those today who look back to those earlier years as ones of relative constancy and predictability. They were of course anything but; their ambiguities were just different than those which we face today. Regardless of the context, however, military

³⁵ The author was the lead developer for the original AMSC and participated in the briefing to Dallaire in the fall of 1996.

³⁶ The programme is described on both the College website and the Royal Military College of Canada website. RMC is the actual degree granting body. See <http://www.rmc.ca/aca/ac-pe/gsc-adc/au-ua/fa/ds-ed-eng.asp> accessed 10 November 2010.

professionals must be able to respond effectively, with logic and morality. Given these constraints, notions of “education of the broadest scope” “clear thinking” “openness of mind” and “sound [decision-making] in any situation”³⁷ resonate as clearly today as they would have in the last half century. They add up to military effectiveness and they are priceless.

³⁷ *Calendar Course 23, Conclusion.*