



## THE CANADIAN FORCES AND THE REVOLUTION IN MILITARY AFFAIRS: A TIME FOR CHANGE

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I have read with interest recent Journal articles on the Revolution in Military Affairs (RMA). The ongoing discourse demonstrates that an RMA is actively shaping the Canadian Forces (CF) of the future. The purpose of this article is to explain some of the initiatives which the CF are currently undertaking to meet the challenge of the RMA, and to outline briefly some of my views on the way ahead. I use the term RMA in a general sense, because I am not referring solely to an information technology-driven, resource-intensive RMA. The RMA we are experiencing is a combination of American initiatives and several uniquely Canadian conditions. Our current circumstances may not be quite as we wish, but the new technology and the ideas associated with this RMA cannot be, and are not being ignored. This RMA has in fact arrived at an ideal time for the CF — a time when change must be embraced if we are to sustain our combat capabilities. We need to revitalize our doctrine, our equipment and our force structure, and I see a clear link between embracing this change and the RMA. There is no doubt that the dramatic transformation that all elements of the CF are now experiencing conforms to the definition given in a recent article in *Parameters*: “a revolution in the basic sense, a new order of things that is sweeping away the old order whether we want it to or not.”<sup>1</sup>

### FOLLOWING THE PATH OF CHANGE

Our world has changed. The Canadian Forces no longer faces a simple static threat from traditional-

ly structured forces. The consequence of this is that we must be able to generate modern task-tailored forces that are capable of responding across the entire spectrum of operations. The operations undertaken in Kosovo, East Timor and Ethiopia/Eritrea have clearly demonstrated this need. The requirement for strategic change is a fact of life which must be embraced and not side stepped. A ‘wait and see’ attitude, or what I call the ‘as it was’ mindset, is a luxury we can no longer afford. We have at hand tremendous opportunities for a mid-sized power like Canada with finite personnel and material resources. Innovation will take place regardless of contrary views or limited budgets. The challenge that we face is to choose wisely and exploit affordable and effective technological, doctrinal and organizational change.

As Dr. Elinor Sloan and Commodore Dan McNeil have recently noted in this Journal, many of the changes associated with the RMA are already taking place within the CF, and there is still more change to come.<sup>2</sup> In addition to momentous technological change, we in the CF are simultaneously dealing with budgetary pressures and an accelerated operational tempo. At the same time, of course, we have undergone significant force reductions. In response to this financial restraint, and at the same time with a desire to improve command and control methods and means, a structural review was under-

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taken in 1995. Recommendations made by the Management Command and Control Re-engineering Team (MCCRT) resulted in a reduction in the number of standing headquarters from seventeen to nine. The Chiefs of the Maritime, Land and Air Staffs and their respective staffs were centralized in Ottawa. The Commander of 1st

diverse and demanding, requiring the dedicated attention of commanders. Additionally, the so-called Revolution in Business Affairs — the devolution of resources and administration — is placing new burdens on Commanders who generate forces. The new equipment provided to our units, such as the Coyote reconnaissance vehicle and the Victoria-class submarines, are much more technically advanced and, consequently, require more comprehensive onboard maintenance and training than the systems they replaced. These new types of equipment also have doctrinal and force structure implications. While boards are examining the doctrinal issues, we are using the Military Occupation Structure (MOS) review and the MOS Analysis, Redesign and Tailoring (MOSART) Project to identify and reconcile the regular and reserve occupational requirements for operations today and in the future. In particular, the generation of support forces is a problem area as a result of our smaller force and increased operational needs for support units. We require a new approach to force generation, especially for support occupations, that meets the needs of task-tailored operational forces. I believe the environmental Chiefs of Staff will soon need to concentrate



DND photo by: MCpl. Ken Allen

Canadian Astronaut Col Chris Hadfield stargazes in a NASA space simulator.

Canadian Air Division has assumed command of all air operations, and his headquarters in Winnipeg now also serves as the headquarters of the Canadian NORAD Region. This a good example of how one modern headquarters can effectively replace several headquarters and layers of infrastructure. I believe that commercially driven developments in information management, robust satellite communications, and the exploitation of space compel us to take the next step in adjusting our command and control structure to better meet the demands of the future.

Against the backdrop of an increased operational tempo, the RMA is driving change in force generation. What we mean by 'force generation' in current parlance is the process of bringing forces, or part of them, to a state of readiness for operations by assembling and organizing personnel, supplies and material. This task includes the training and equipping of forces and the provision of their means of deployment.<sup>3</sup> Military courses, for example, are more technically advanced, longer, and require more dedicated expertise than ever before. Some are being conducted through distributed distance learning, and this will increase. The nature of collective and operational training for the preparation of units for operations is also becoming more

solely on force generation to deal with the many challenges of the RMA.

The effects of the RMA on force employment are equally dramatic, and are most readily apparent in the command and control arena. In general terms, Force Employment is the planning and activities related to the deployment, employment and re-deployment phases of an operational mission. It includes planning and controlling operations and the support required in the conduct of a mission, as well as the command and control of assigned operational forces. Advanced command and control systems, such as the Canadian Forces Command System (CFCS), together with the robust Canadian military satellite communications system that is forthcoming will expand our capability to exercise effective command and control of deployed forces, while simultaneously providing timely, accurate and relevant information to decision-makers. The next generation of command and control systems will make the location and number of operational-level headquarters less important than in the past. Time and distance will be overcome by a fused, real-time, common intelligence and operational picture derived from space-based links, and other wide area sensors that will provide far better situational awareness. The technology exists today to solve the cur-

rent lack of immediate interconnection between headquarters staffs and commanders at all levels. However, we must overcome our legacy of hierarchical 'stovepipe' organizations and methods if the CF is to become truly netcentric. The collection and dissemination of intelligence is becoming more centralized and, thus, more readily available to our analysts. We are organizing a Joint Imagery Centre and developing a new national Intelligence, Surveillance and Reconnaissance (ISR) Fusion Centre which will centralize both information gathering and the processing of intelligence. In the Army Capital Program, Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) has recently been designated as the first new priority. A CF Experimentation Centre will be set up in 2001 (and fully operational in 2002) to assist in the identification and validation of the new concepts, technology and doctrine needed to provide a solid operational foundation for the CF of the future.

We have not been waiting passively for these improvements. In fact, preliminary steps have already been taken to provide the joint capabilities essential for the future. The formation of the Joint Operations Group, the Joint Signals Regiment, and the Directorate of Joint Force Capability in NDHQ demonstrate the natural progression toward RMA-related change. In future, the Deputy Chief of the Defence Staff will undoubtedly become the only strategic-level force employer, and a new Canadian Forces Joint Headquarters, established in conjunction with the ISR Fusion Centre, will employ all forces at home and abroad at the operational level. I firmly believe that the current force employment structure needs revision in this direction. To assist in this revision, we need a clearly understood roadmap to ensure that we can meet the challenges of future joint and combined operations in non-traditional operational areas. *Strategy 2020* is the strategic-level direction and guidance to this end.

### THE CHALLENGES AHEAD

More specifically, *Strategy 2020* is positioning the force structure of the CF to provide Canada with modern, task-tailored and globally-deployable combat capable forces that can respond quickly both at home and abroad, in joint or combined operations. We will, of course, require organizational flexibility to generate and employ the types of forces envisioned in *Strategy 2020*. Indeed, we are moving toward fully integrated, capability-based planning to help determine the skills and knowledge needed by those who will serve in our future force. We will develop leaders for tomorrow through our Officer Professional Development 2020 Plan, which will lead us to the creation of a Defence University to meet our expanding educational needs. We

have produced a concept paper entitled *Strategic Capability Planning for the CF*, which is now being used to provide a process for determining resource allocation consistent with defence strategy. In fact, Defence Planning Guidance 2001(DND's annual strategic-level direction), has for the first time provided formal direction to use the force planning scenarios and capability goals derived from our newly developed Canadian Joint Task List. Our procurement process has already evolved to capability-based planning for long-term capitalization. Projects such as the Afloat Logistics Sealift Capability (ALSC – a supply, cargo, medical, personnel carrier, and support to forces ashore ship), which has broader requirements than those of a pure naval auxiliary oiler (AOR), are the result. A Joint Capability Requirements Board (JCRB) has been established, and is working well. The concept of Joint Capability Assessment Teams (JCATs) will be implemented soon, bringing greater operational focus to the delivery of future capabilities. The Canadian Forces is following the path of change toward a more effective and sustainable force.

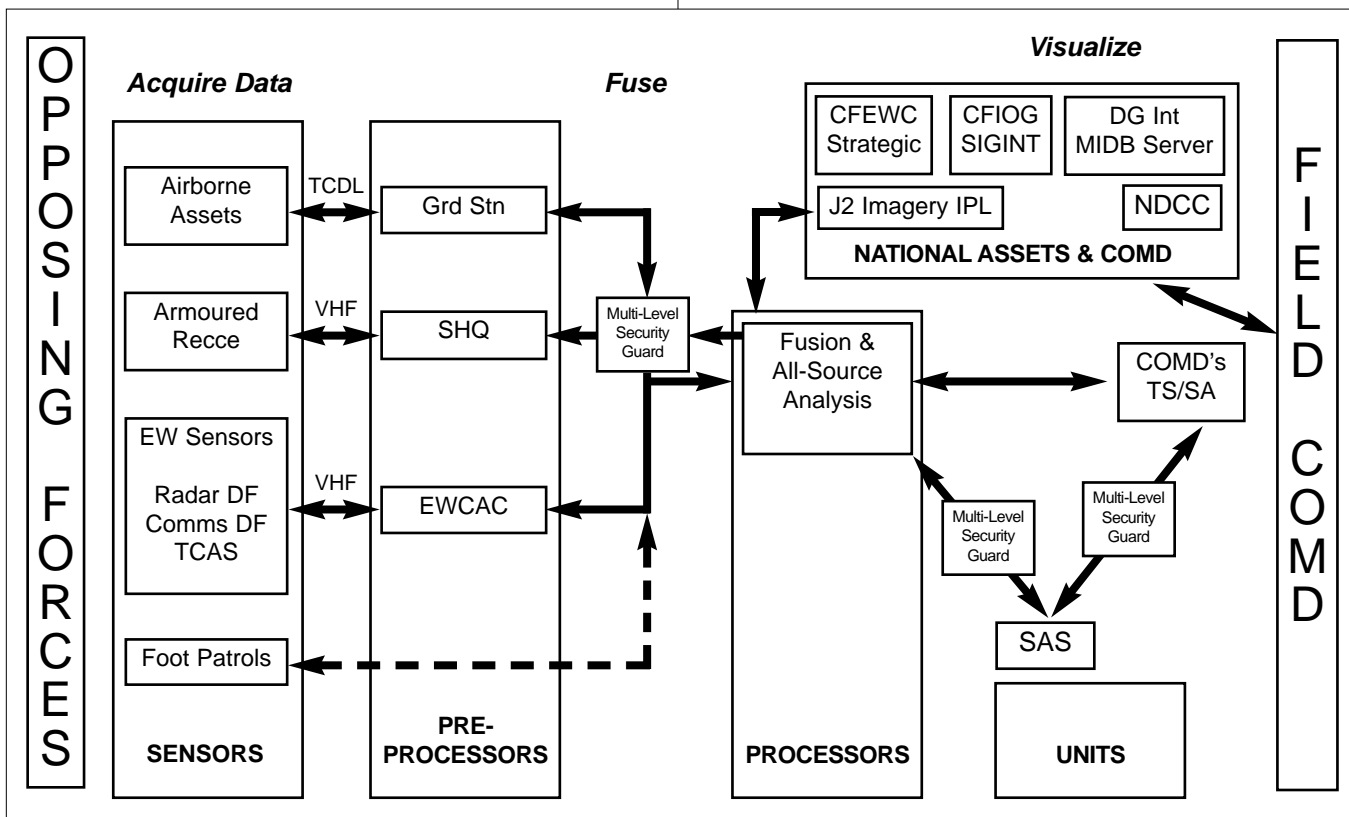
Thus far we have been successful in our reorganization initiatives. Our leadership has adopted an approach described by one analyst as "being in favour of patience and selective innovation, with a focus on R&D, experimentation, and selective modernization rather than a rush to transform the basic building blocks and equipment inventories"<sup>4</sup>. Our joint logistics and personnel services continue to be the envy of many other services. The success of the reforms initiated by the Management



Inside the Land Force's state of the art Coyote Reconnaissance Vehicle.

Command and Control Re-engineering Team (MCCRT) is evidence that we are capable of effective change. The fact that we have continued to mount more operations

CF Photo Unit: REC 97-14



A graphical depiction of the Land Force's ISTAR process.

than ever while implementing these changes is a remarkable accomplishment. However, now is the time for the next step in the transformation of the CF. For example, we need to revitalize how we generate support troops. A favoured concept is to expand the Joint Support Group, which will be formed this year as an element of the Joint Operations Group, into a broader-based Support Command. This new command

would act primarily as a force generator, but would also serve as the support occupations management authority and run the appropriate schools based at CFB Borden. The number and size of the headquarters in the Forces is becoming unsustainable, and we must examine innovative options while at the same time protecting our core capabilities.

We must realize that fundamental change is required, and it is taking place. If we get it right, RMA-related change will enhance our vital core capabilities and the effectiveness of our units. As Dr. Sloan has put it so accurately, this RMA should be viewed as much an opportunity as a challenge for the CF, because selective investments in the RMA can enhance our abilities to respond to both high and low intensity tasks.<sup>5</sup> In reality, the quality of investments we make is generally more important than the quantity we invest over the long term. In addition to investing in technology, streamlined joint command and control will be required to generate and employ task tailored units in the future battle space. We have become too small to be able to afford force generators that are concerned about operations and, conversely, for force employers to have to consider force generation issues. Only through relevant doctrine, efficient training, an effective force structure, modern equipment, and flexibility of mind will we develop a sustainable CF. In particular, we need to:

- embrace technology, which will enhance our capabilities, while at the same time not be oversold on technology;
- implement a prudent investment strategy for technology, with a key objective being the maintenance



Fusing multi-sensor source input such as this RADARSAT image will be the foundation of future CF ISR capability.

of interoperability with our allies;

- be capable of fighting “alongside the best, against the best”,<sup>6</sup> as the White Paper directs and achieve, across the whole of the Canadian Forces, the level of interoperability with our allies that our Navy has achieved with US Carrier Battle Groups, and that the US Navy is now referring to as “world level interoperability”;
- manage the inevitable blurring of lines of responsibility between the tactical, operational, and strategic levels of command; and
- use and refine the joint doctrine we are developing on exercises scheduled in the National Joint Training Plan.

This will be an enormous challenge. Admiral Bill Owens recently observed:

... completing the revolution in military affairs will involve the controversial and difficult effort of integrating innovative military technological applications, and organizing new ways of conducting warfare, into a realigned military structure. Identifying specific organizational reforms will be hard and difficult work, because every change will challenge and threaten a host of entrenched military traditions and bureaucratic interests.<sup>7</sup>

It will indeed be an ongoing challenge to remain focused on the future while carrying out institutional reforms, and providing government with sound justification for the increased resources necessary to modernize. However, it is possible, and *Strategy 2020* lays out our vision and guidelines for the implementation of this type of strategic change. We will not “throw the baby out with the bath water” during the implementation of this RMA. Many things will never change. The individual soldier will remain the essential component of the Army, as will the ship for the Navy and the aircraft for the Air Force. What will change is our ability to collect, process, organize and store information, and disseminate knowledge. This significantly affects the way that we will communicate, command and fight in the future. Rapid revolutionary change requires a flexibility of mind from all. In the end, we will always rely on our professional military judgment and current research to decide on what selective change to implement.

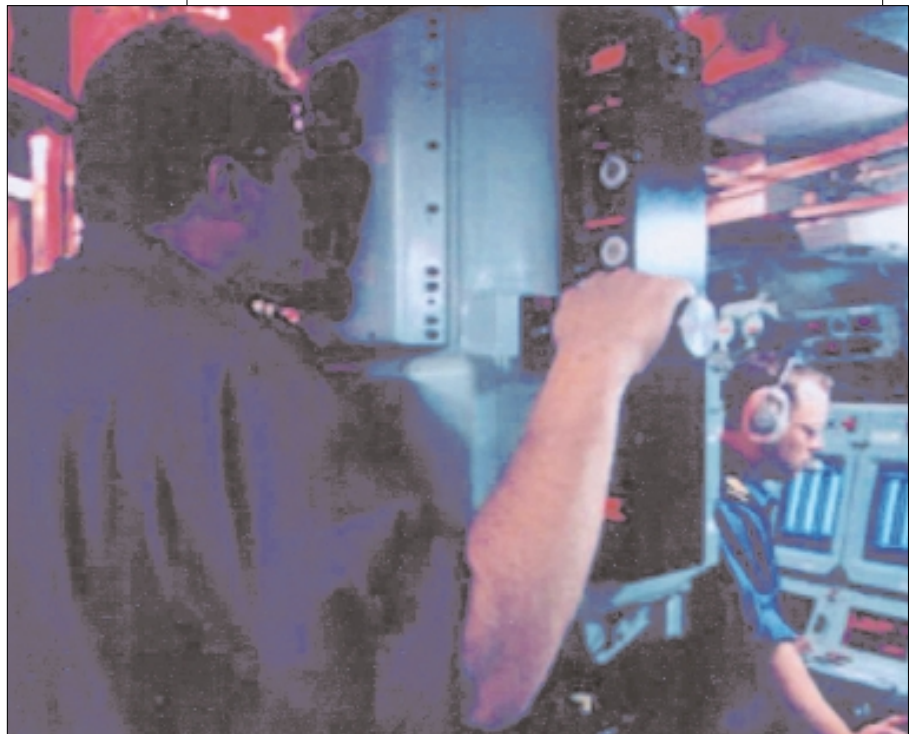
## CONCLUSIONS

**A** Revolution in Military Affairs is taking place in the Canadian Forces. This RMA is unavoidable. Resource-related change is also at our doorstep and will not go away. A conscious decision must now be made to embrace innovation in doctrine, organization and technology if we are to remain an effective and relevant mil-

itary force that is capable of meeting the defence needs of Canada and the expectations of the Canadian public. It is time to firmly seize the initiative and get on with additional selective change associated with this RMA. Much has been accomplished to date, but we must further:

- re-examine the roles of all headquarters, and make a clear distinction between force employment and force generation responsibilities;
- determine whether or not the organization and command of our bases is appropriate for the future; perhaps a more business-structured organization is required to provide support to lodger units and deployable forces across the country;
- commit to selecting and acquiring expertise and capability in technologies that offer the most advantage, regardless of service affiliation; and
- develop organizational structure and doctrine to successfully incorporate these new technologies and equipment.

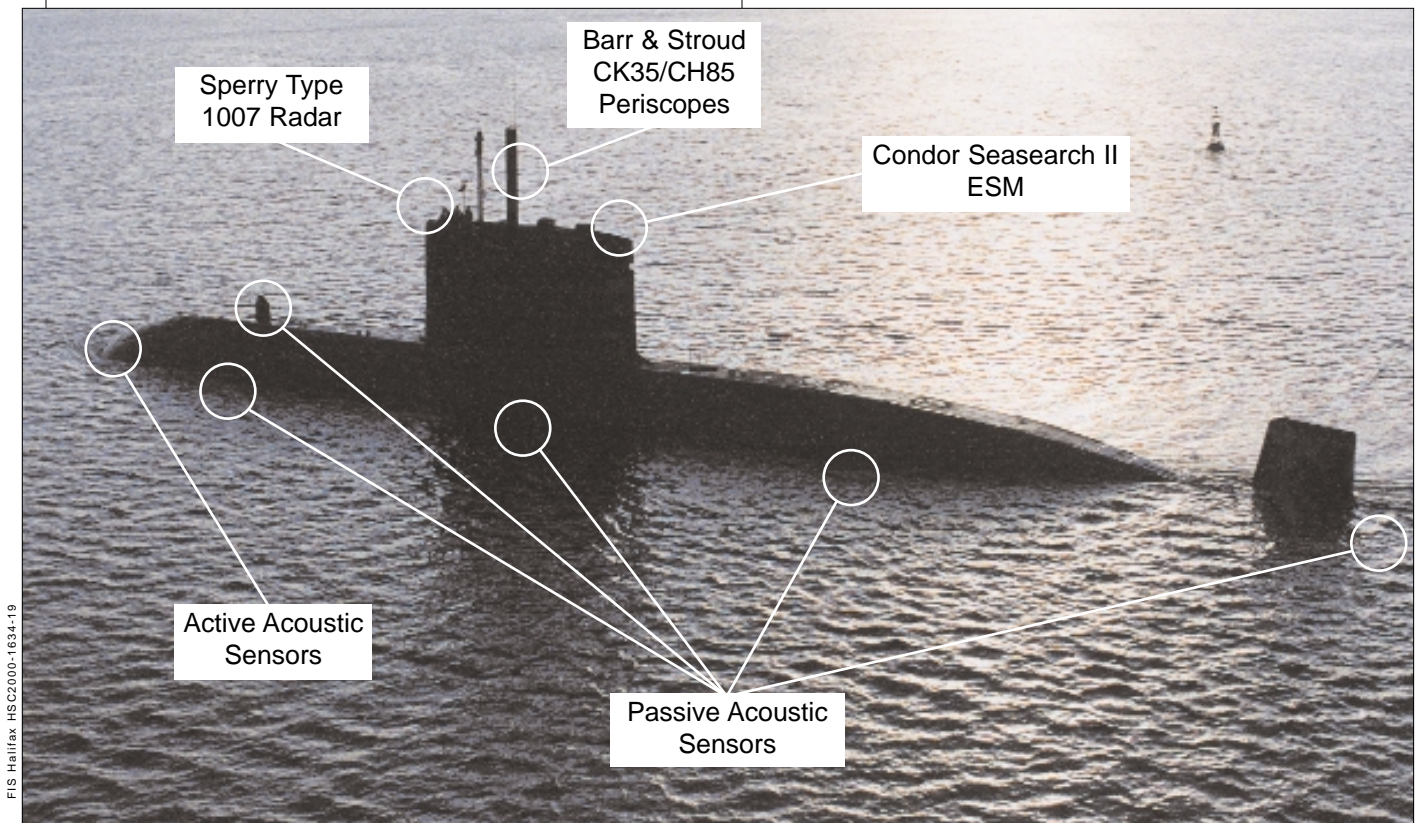
Actions, attitudes and acronyms which are biased in favour of a particular service are no longer affordable. Technologies may be able to provide us with weapon platforms and information systems that are capable of performing more than one primary mission. This could result in considerable savings, and ensure that our future weapons platforms and C<sup>4</sup>ISR systems are relevant. It will also allow for more selective and perhaps less risky employment of our most precious resource, our soldiers,



At work inside the HMCS *Victoria*.

sailors, and men and women of the Air Force. We must not squander this very real opportunity to create a truly modern, combat capable and joint CF.





FIS Halifax HSC2000-1634-19

The array of sensors on the new Victoria-class submarines.

## NOTES

1. Adam, T.K., "The Real Military Revolution", *Parameters*, US Army War College Quarterly - Autumn 2000, p. 54.
2. See Dr. Elinor Sloan, "Canada and the Revolution in Military Affairs: Current Responses and Future Opportunities", *Canadian Military Journal*, Vol. 1, No. 3, Autumn 2000. See also Commodore Dan McNeil, "Technology, History and the Revolution in Military Affairs", *Canadian Military Journal*, Vol. 1, No. 4, Winter 2000-2001.
3. See "Strategic Capability Planning For The Canadian Forces" VCDS Home Page ([http://www.vcds.dnd.ca/dgsp/dda/strat/intro\\_e.asp](http://www.vcds.dnd.ca/dgsp/dda/strat/intro_e.asp)).
4. O'Hanlon, M.; "Alternate Paths to Transformation" (Paper for Joint Operations Symposium 2000 Quadrennial Defense Review 2001: Options & Issues for Next Administration), November 8-9, 2000; p. 1.
5. Sloan, *op. cit.*, p. 13.
6. See Highlights Canadian White Paper 1994, Chapter 3, para 25.
7. Owens, William A., *Lifting The Fog of War*, (Farrar, Straus, and Giroux, New York, 2000); p. 226.



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