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WINTER 2016/17 | VOLUME 21, NUMBER 2

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Mission Statement. It is the goal of the CDA Institute to promote informed public debate on security and defence issues and the vital role played by the Canadian Armed Forces in society. It is intended that ON TRACK facilitate this educational mandate by featuring articles that explore security, defence, and strategic issues that may have an impact on Canadian interests and on the safety of its citizens. The views expressed in ON TRACK are those of the authors and do not necessarily represent those of the CDA Institute.

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Énoncé de mission. L'Institut de la CAD a pour but de non seulement encourager un débat public éclairé à propos des problématiques concernant la sécurité et de défense canadienne, mais aussi de promouvoir le rôle vital joué par les Forces armées canadiennes dans la société. Nous souhaitons que « ON TRACK » facilite ce mandat éducatif en mettant en vedette une gamme d'articles qui explorent la sécurité, la défense et le domaine stratégique pouvant avoir un impact sur les intérêts du Canada et sur la sécurité de ses citoyens. Les points de vues exprimés dans « ON TRACK » reflètent les vues des auteurs et pas nécessairement ceux de l'Institut de la CAD.

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COVER PHOTO: HMAS Warramunga, Canadian Navy Ship, HMCS Vancouver and Republic of Singapore Navy ships, RSS Vigour and RSS Valiant conducting firings in the Northern Australian Exercise Area during Exercise KAKADU 2016. (Image credit: Commonwealth of Australia.)

PHOTO DE LA PAGE COUVERTURE: HMAS Warramunga, un navire de la Marine canadienne, NCSM Vancouver et des navires de la République de Singapour, RSS Vigour et RSS Valiant effectuent des tirs dans la zone d'exercice militaire de l'Australie du Nord pendant l'exercice KAKADU 2016. (Crédit image : Commonwealth of Australia.)

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FROM THE EDITOR

Dr. David McDonough

This issue of ON TRACK has a selection of articles covering Canadian defence policy and international security.

The issue begins with an Editorial by CDA and CDA Institute CEO Tony Battista and Research Manager and Senior Editor Dr. David McDonough on the pressing need for the government under Justin Trudeau to grow the Canadian defence budget.

The next article is by Vice-Admiral Drew Robertson (Retd), CDA Institute Board of Directors, on the future direction of Canadian defence policy. This article is based on his prepared remarks to the House Committee on National Defence and the Senate Standing Committee on National Security and Defence.

The government had announced the return of RMC Saint-Jean's return to full university status in the summer. We are pleased to showcase an article by CDA Institute Analyst Oksana Drozdova on the history of the college, which was originally published on our Blog: The Forum.

The conflict between Armenia and Azerbaijan is the subject of the next article by Michael Lambert, who recently launched the Caucasus Initiative. Another long-standing rivalry, between India and Pakistan, is examined by PhD candidate John Mitton from Dalhousie University. As he goes on to show, this rivalry has had an impact on how both countries engage with Afghanistan.

We are always happy to showcase the work of promising students. In this issue, we have an article by Alexandra Dufour – who recently completed her BA at the University of Ottawa – on the conflict in Yemen.

Chemical weapons have once again become an important international issue, due not least to the chemical weapon use in Syria – and the Obama administration's failure to follow through on its so-called "red line." To shed light on the future of the Chemical Weapons Convention, we have an article by Dr. Jez Littlewood, Carleton University.

We are delighted to publish the acceptance speech of Dr. James Boutilier, recipient of the CDA Institute 2016 Vimy Award, who commented on the challenges facing the Asia-Pacific region in light of China's strategic rise during the 2016 Vimy Award Gala Dinner held on 4 November 2016. Few things are more strategically salient than the rise of China as a contemporary great power. Yet much remains unknown about the consequences of China's rise, and whether other great powers (especially the United States) would be willing to accept the Middle Kingdom as a "responsible stakeholder" – issues further explored in an article by independent scholar Adam MacDonald.

A number of concerns have been raised about the Government of Canada's approach to defence procurement, especially in light of its plan to acquire 18 interim Super Hornets. Military requirements remain an often misunderstood criteria for defence planning. With that in mind, we are especially fortunate to have CDA Institute Research Fellow Chuck Davies here to discuss these issues.

The Canadian government expects to complete its Defence Policy Review (DPR) by early next year. In light of this fact, defence analyst Francis Furtado offers advice on the broad outlines of Canadian defence policy.

Dr. John Blaxland once labelled Canada and Australia strategic cousins, and for good reasons – given their shared culture, history, and international outlook, although with some important geo-strategic differences based on their respective locations. To explore defence relations between both countries, this issue concludes with articles by experts from the Australian Strategic Policy Institute. The first, authored by Dr. Andrew Davies and Chris Cowan, explores the future of each countries naval forces. The second is written by Dr. Malcolm Davis, and looks at the potential of emerging defence technologies to both countries.

Sincerely yours, David McDonough, PhD

LE MOT DU RÉDACTEUR

David McDonough, Ph. D.

Ce numéro de la revue ON TRACK offre au lecteur des articles portant sur la politique de défense canadienne et sur la sécurité internationale.

Ce numéro débute par un éditorial du président-directeur général, Tony Battista, et du directeur de la recherche et rédacteur en chef, David McDonough, de la CAD et de l'Institut de la CAD concernant le besoin urgent du gouvernement de Justin Trudeau d'augmenter le budget de défense du Canada.

Le prochain article est du Vice-amiral à la retraite, Drew Robertson, membre du Conseil d'administration de l'Institut de la CAD, qui nous invite à considérer l'avenir de la politique de défense du Canada. Ses commentaires reprennent ceux qu'il a adressés récemment au Comité de la défense nationale de la Chambre des communes et au Comité sénatorial permanent de la sécurité nationale et de la défense.

En mai dernier, le Gouvernement a annoncé le retour du Collège militaire royal de Saint-Jean à son ancien statut universitaire. Nous vous présentons un article de Oksana Drozdova, analyste à l'Institut de la CAD; article paru dans le Blog 'Forum' de l'Institut, qui met de l'avant l'histoire du Collège, de ses débuts en 1952 à aujourd'hui.

Le conflit entre l'Arménie et l'Azerbaïdjan est le sujet des remarques de Michael Lambert. Elles sont suivies d'un article signé John Mitton, candidat au doctorat à l'Université Dalhousie, qui suggère que le très long conflit entre l'Inde et le Pakistan influence la relation qu'entretiennent ces ceux pays avec l'Afghanistan.

Nous sommes heureux de vous présenter, dans nos revues On Track, le travail d'étudiants qui ont su se démarquer. C'est donc Alexandra Dufour, titulaire d'un baccalauréat de l'Université d'Ottawa, qui nous offrira le fruit de sa pensée sur le conflit au Yémen.

Les armes chimiques ont encore fait la une de l'actualité au niveau international suite à leur emploi en Syrie et l'échec du Président Obama à tenir promesse concernant la soi-disant 'ligne rouge'. Jaz Littlewood, professeur à l'Université Carleton d'Ottawa, nous livre sa pensée sur l'avenir de la Convention sur les armes chimiques, suite à ces événements.

Nous sommes ravis de publier le discours d'acceptation de M. James Boutilier, lauréat du Prix Vimy de l'Institut de la CAD de l'année 2016. Dans son discours, qui a été donné lors du Dîner de Gala du Prix Vimy 2016 le 4 novembre 2016, M. James Boutilier a parlé des défis qui se posent dans la région Asie-Pacifique à la lumière de la progression stratégique de la Chine.

Peu de sujets sont aussi stratégiquement saillants de nos jours que ne l'est la montée de la Chine au statut de 'grande puissance'. Quelles en seront les conséquences? Les États-Unis et certains autres joueurs sur l'échiquier international accepteront-ils la Chine à titre d'acteur responsable'? Voilà sur quoi se penche Adam MacDonald, chercheur indépendant.

La façon que le Gouvernement du Canada entreprend l'achat du matériel militaire a, depuis longtemps, suscité beaucoup de commentaires. Ce fut très récemment le cas à l'annonce de l'achat de dix-huit (18) avions du type 'Super Hornet'. Élément essentiel dans la planification pour la défense du pays et en réponse aux missions que leurs donne le Gouvernement, les militaires ont la responsabilité d'énoncer les capacités opérationnelles dont ils auront besoin afin de pouvoir remplir les missions données. Nous nous réjouissons de la contribution de Chuck Davies, recherchiste à l'Institut de la CAD, qui saura nous éclairer sur ces sujets.

Le Gouvernement du Canada prévoit terminer sa Revue de la politique de défense (RPD) au début de l'an prochain. Francis Furtado, analyste de défense, fait part de sa pensée concernant les grands enjeux de cette politique.

Le professeur John Blaxland de l'Australian National University a déjà avancé l'idée d'un cousinage stratégique Australie-Canada, compte tenu, selon lui, d'un partage culturel, historique et de vision internationale, ceci malgré une divergence géo stratégique importante. Pour conclure ce numéro de la revue On Track et afin d'explorer les liens de défense entre ces deux pays, deux experts de l'Australian Strategic Policy Institute, Andrew Davies et Chris Cowan, se pencheront sur l'avenir des forces navales des deux pays. Le mot de la fin revient à Malcolm Davis qui jette un regard sur le potentiel des technologies émergentes dans le domaine de la défense dans ces mêmes deux pays.

Cordialement David McDonough, Ph.D.

LETTERS TO THE EDITOR

Sir

Dr. Howard Coombs discussion ("What is Wrong with Canada's Reserves?" Summer 2016) focuses at a relatively high level of strategic and operational awareness. He does not mention one important factor and that is what I would term our inability to develop and state a philosophy of what we really want our Reserve Forces to be.

The original concept for our Reservists foresaw part-time soldiers, sailors and air personnel who provided a foot-print in small and large communities across the nation flying the flag as best they could. By and large they never attained the operational prowess of Regulars, but were not expected to. And given that the Reserves have been always on the short end of the stick when it came to funds for training, equipment and readiness sustainability, the part-time, "gifted amateur" model worked well enough.

Well about twenty years ago this all started to change. Community foot-print seemed to matter less. What the Regulars wanted were augmentation forces for on-going operations. Reservists did well when called upon - MCDV manning, Afghanistan etc., but many stopped being part-timers and were expected to become full-timers in order to gain the training and experience to be useful on the battlefield. As a result many reserve units have been left as little more than administrative holding pens for a never ending revolving door of unit members who come and go from active duty.

The two models could co-exist, in my view, but to support Dr Coombs, we

really do need to sort out the fundamental philosophy of what we want from our Reserve forces. I have already suggested elsewhere that perhaps it is time we tear down what we have and rebuild it brick by brick, but we have to have a vision for that. I am not confident the Defence Policy Review will provide one.

Your sincerely

David Collins

(CDA Institute Board Member and retired Reserve officer)22 September 2016



EDITORIAL CANADA IS BACK – THE DEFENCE BUDGET MUST GROW...SIGNIFICANTLY

by Tony Battista and Dr. David McDonough

The Canadian government triggered some controversy with its most recent defence policy announcement – that it now plans to delay the open competition for the CF-18 replacement by five years, and instead opt to procure an interim fleet of 18 Super Hornets as a stopgap measure to fill what it says is a capability gap.

The subsequent news stories following this announcement have only raised further questions. It now appears this capability gap only arose following a policy shift in the government's approach (and increase) in commitments, especially to its NATO and NORAD commitments. Without further information on the rationale, it is difficult to make any definite assessment about this decision.

Clearly, it is the government's prerogative to set policy, although the timing of it, when the government was trying to justify a plan for interim Super Hornets, is certainly curious. One must then ask about the extent to which subject matter experts were consulted on this decision, and whether such a decision should more properly be part of the Defence Policy Review (DPR) – and the value of the DPR when such key decisions are taken outside of it?

Another equally troubling story is that the government has forced over 200 civil servants involved in the CF-18 replacement project to sign lifetime non-disclosure agreements. Given that there are already existing stringent measures to protect classified government information, such a draconian measure is certainly at odds over the government's stated position on transparency and openness, and raises questions about the underlying intent of such a policy. Is it really only about protecting sensitive information or trade secrets? Or is it simply a way to prevent officials from criticizing the government's handling of this file after they leave office?

Of course, much remains unknown about how the government will ultimately proceed with its plan. What fighter aircraft will realistically be available to compete in the CF-18 replacement competition in five years' time? With the exception of the F-35, most of the other possible aircraft will already be at their mid-life point by that time. And will the US government even agree to sell interim Super Hornets? Lest it be forgotten, Lockheed Martin remains the single largest contractor for the American government, and there is little doubt that Washington has a vested interest in the future of the F-35 - and much less so with the Super Hornet, which is becoming a legacy aircraft for them.

Yet the most worrisome aspects of this decision is on the question of cost. How much will it cost to purchase an interim Super Hornet fleet? What is the additional cost of operating a mixed fleet? A possible answer to the former can be seen in Australia's purchase of 24 Super Hornets for 6.1-billion (Australian \$). A roughly similar amount could be expected. On the latter, it will undoubtedly be an expensive proposition – as noted in a Defence Research and Development Canada

(DRDC) report that has (coincidentally?) disappeared from the DND/DRDC website.

And is the interim Super Hornet fleet to be a permanent fixture of the RCAF force structure? Or is it merely a bridging fleet that will be retired soon after the permanent CF-18 replacement are delivered? Of note, Australia had planned for a bridging fleet with its own Super Hornet purchase, which quickly emerged as a permanent mixed arrangement, with all its attendant additional costs. Then there is the matter of what is the requisite size our fighter fleet in light of the government's increased commitments to NORAD and NATO - and whether the permanent CF-18 replacement will take that number into consideration?

Is Canada's defence budget large enough to handle the governments reported and impending defence decisions? What conclusions can be made from the many procurements, as well as current and emerging military commitments (procurement of an interim fleet of fighter aircraft, a major building of new naval ships, increasing the CAF operational tempo with new deployments to Latvia and to a still unknown locale in Africa (possibly Mali), current anti-ISIL mission in the Mideast, and likely more money for recruiting, training, education, readiness, retention and transition)?

Moreover, what will the budgetary situation be like in five years, when Canada expects to choose a permanent CF-18 replacement



central legacy of the current government with both a large deficit and an ill-equipped Canadian Armed Forces.

As a result, the next budget in 2017 may be the most feasible opportunity for the government to increase the baseline of the defence budget - and to put National Defence in a better position to deal with the expected military requirements of the foreseeable future. It also coincides with the arrival of the Trump administration in the United States, which many expect will make burden-sharing a centrepiece of its engagement with key allies.

(L-R): CDS General Jonathan Vance, Minister of National Defence Harjit Sajjan, Minister of Public Services and Procurement Judy Foote, and Minister of Innovation, Science, and Economic Development Navdeep Bains at a press conference on the government's CF-18 Replacement project. (Image credit: Department of National Defence)

fleet? Then, it will have to address other competing spending priorities in other areas of security and defence, but also on social programs, health, dealing with the effects of climate change and its challenges on the environment, a direr financial situation for many western countries, and social upheaval (extremism, nationalism, protectionism, etc), not to mention the resurgence of China and Russia?

As the PBO and others have pointed out, the existing budget is simply too small for the existing force structure. And the government has shown little interest in decreasing either personnel numbers or basing infrastructure to make things more manageable. Indeed, as its decision on the interim Super Hornets seems to indicate, it may have set itself on the road to acquiring more fighter aircraft than even its predecessor. That is not necessarily a bad outcome, and may indeed be a silver lining of sorts – as having more aircraft will allow the CAF greater flexibility in terms of readiness and operational deployments. But much depends on whether there will be sufficient funds to allow for such growth.

It seems clear: The Defence Budget Has to Go Up! Canada's defence budget needs to grow starting with this next Federal Budget. As the recent Senate Standing Committee on National Security and Defence report on UN peacekeeping notes, the government needs to "ensure adequate funding is available to meet the operational priorities of the Canadian Armed Forces" – and this is as true with the government's plan for peace support missions as it is with national priorities and commitments to NORAD and NATO.

And the window of opportunity for such growth may be limited. After all, the government plans on running deficits, but will likely need to start curtailing spending prior to the next election in three years. Otherwise, what will likely grow is a substantive commitment-capability gap, leaving behind an unpalatable A decision by the Trudeau government to increase defence spending starting with the next Federal Budget could go a long way to establish its credibility

when it comes to security and defence policies, to look after Canada's short and long-term security and defence needs, and to reassuring our American ally on this issue.

Tony Battista is the Chief Executive Officer of the CDA and CDA Institute.

Dr. David McDonough is Research Manager and Senior Editor at the Conference of Defence Associations Institute (CDA Institute), and a Research Fellow at the Centre for the Study of Security and Development (formerly CFPS) at Dalhousie University.

DEFENDING CANADA IN THE 2020s

prepared by Vice-Admiral Drew Robertson

The Royal Canadian Navy (RCN) responds to and deters other powers in our home waters, working with the Royal Canadian Air Force. But all governments have also repeatedly deployed the RCN to respond wherever our national interests are challenged,

rather than wait for challenges to arrive off our coasts.

Indeed such deployments to undertake peace support operations, whether conducted under United Nations Security Council authorized missions, resolutions, fundamental

global treaties like the UN Conventions on the Law of the Sea (UNCLOS), or the UN Charter, have been the core business on which our governments have dispatched the RCN abroad, amounting to dozens of deployments globally by our ships, submarines and aircraft, and task groups in the last 25 years, even while the fleet at home secured our sovereignty.

Governments have repeatedly deployed naval forces on such operations because supporting the international rulesbased order – anchored by the UN Charter, treaties and conventions – has produced the peace and security on which our trade and prosperity depend. Governments do so since acting as a force for good is in Canada's abiding national interest. Notwithstanding this unbroken record of success, the RCN's capabilities and capacities have eroded steadily over the past 20 years, incrementally but increasingly compromising its ability to defend Canada or to act as a force for good abroad.

"But the ability of this government and those that follow to live off these legacy investments is rapidly coming to a close, even as the strategic risks it has had to assume deepen."

Strategic Risks Today

There has been progress. The frigates, now well past mid-life, have been successfully modernized, and our submarines are operational.

Further, the National Shipbuilding Strategy is an important undertaking of considerable promise. The question isn't whether Canada will successfully build warships: we always have. The question is whether their numbers and capabilities will be adequate to the rising challenges.

The key issue is that, over the last 20 years, a succession of previous prime ministers and eight parliaments have been unable to sustainably resource the Defence outcomes they set out in

policy. The effect is that this G7 nation, with all its maritime interests at home and abroad, has seen its replenishment ships and its destroyers age into their mid-forties before being forced out of commission—not merely without relief, but without governments having even

entered into contracts to build their replacements.

The RCN's successes of the last 20 years were due to investments in the fighting fleets that defend Canada made decades before, from the 1960s onward. Here I include our submarines, frigates, destroyers, maritime patrol aircraft and helicopters.

But the ability of this government and those that follow to live off these legacy investments is rapidly coming to a close, even as the strategic risks it has had to assume deepen.

As a result, beyond having lost capacity, Canada no longer has the ability to independently control events at sea due to the loss of its task group air defence capability, and Canada no longer has the ability to independently sustain deployed task group operations and must rely on others for at-sea refuelling and logistics support, even in home waters.

Consequently, Canada is unlikely to be able to conduct a prolonged multirotation response to international events of the kind it has done repeatedly, nor is it likely to be offered the significant international leadership opportunities at sea that such a response enables, particularly in complex multinational operations, as has also been done repeatedly, including after 9/11 supporting our American allies for several years.

Looking Ahead

Looking ahead, on the present course, future governments face greater reductions and rising risks.

Today's RCN fighting fleet of submarines and surface combatants is already smaller than research has shown required to meet enduring policy outcomes.

Yet, as the Parliamentary Budget Officer and others have noted, the Canadian Armed Forces (CAF) is unsustainable over the coming decade, likely to an amount in the tens of billions of dollars. So, plans aimed at restoring the fighting fleet's capacity, including to extend the life of Canada's four highly capable Victoria-class submarines into the mid-2030s, and replace them with a new submarine capability as well to replace as our Aurora Maritime Patrol aircraft, are not just in jeopardy, they are headed hard aground.

At current budget levels, one can anticipate the RCN's fighting fleet being further reduced over the coming 15 years. Reduced eventually toward speculation in the press of just 9 surface combatants (a 40 percent cut from the 15 of just two years ago), while the submarines and the RCAF's maritime patrol aircraft will not likely be affordable or replaced.

Such changes would compound the risks I cited earlier by significantly eroding the maritime capabilities and capacities required to contribute meaningfully to continental or international operations. While for decades the government has often had major warships deployed in two separate theatres, that would no longer be sustainable with a smaller fleet But most importantly, such a force would not be suitable or adequate for the vast challenge of defending our three-ocean home waters. This much smaller and unbalanced future force would consequently not be adequate to national need, especially given the rapid changes underway in the global maritime order:

- As nations throughout the world, but especially Russia and China, continue to narrow or close the technological gaps that western navies have enjoyed for decades and make significant investments in maritime forces, particularly in the Asia-Pacific;
- As great state cooperation continues to give way to competition and confrontation at the expense of the rules-based international order, especially at sea and most notably in the South and East China Seas, and finally;
- As Canada's third and largest, but least accessible and most fragile, ocean space, opens to commercial shipping and resource extraction, and as the RCN secures our sovereignty in a time of significant nation-building in the Arctic.

Conclusions & Recommendations

The success of the Government's Defence Policy Review (DPR) depends on bringing spending levels into balance over the medium – to – long term with the defence outcomes governments expect. Defending Canada in the new strategic environment will require increased investment in defence if the CAF is to achieve what governments expect, rather than less.

In making such investments, there is no better insurance against strategic risk and unforeseen global shocks than a balanced, multi-purpose and combatcapable maritime force.

This DPR presents a moment of strategic opportunity—an opportunity to not only bring defence outcomes and resources into an urgently needed balance but to allow the CAF to be restructured for the challenges of this century. The force structure of the 20th century that several reviews of defence policy reconciled themselves to needs reshaping for the challenges of the decades ahead.

Such strategy-driven measures will take vision, commitment, and effort over many years. But the result will be a CAF better prepared to defend Canada at home and act as a force for good abroad.

This is an edited version of remarks delivered to the <u>House</u> Committee on National Defence and the <u>Senate</u> <u>Standing</u> Committee on National <u>Security</u> and <u>Defence</u> by VAdm Robertson (retired) on behalf of the <u>Naval</u> <u>Association of Canada</u>.

Vice-Admiral Drew Robertson (Ret'd) is a former commander of the Royal Canadian Navy and is member of the CDA Institute Board of Directors.

VÉRITÉ, DEVOIR, VAILLANCE : LE CMR SAINT-JEAN RETROUVE SON STATUT UNIVERSITAIRE

by Oksana Drozdova

e ministre de la Défense nationale LHarjit Sajjan a annoncé le 17 mai 2016 que le Collège militaire royal de Saint-Jean (CMR Saint-Jean) allait de nouveau accorder des diplômes de niveau universitaire. Avant cela, le Collège militaire royal du Canada (CMRC), à Kingston, en Ontario, était la seule université militaire au Canada qui conférait des diplômes universitaires. Une deuxième université est donc un heureux ajout pour les raisons exposées ci-dessous. Cependant, ce qui ressortait le plus dans l'annonce du ministre Sajjan, à part la question de l'éducation militaire, était ses commentaires sur le patrimoine bilingue du Canada.

En effet, le CMR Saint-Jean (désigné Collège militaire royal de Saint-Jean de 1952 à 1995) est maintenant prêt à faire à nouveau une contribution académique, culturelle et bilingue importante pour le développement professionnel du corps des officiers des Forces armées canadiennes (FAC). La principale raison de la création du collège en 1952 était la nécessité d'accroître la présence francophone dans les FAC qui, pour des raisons historiques, avaient été largement linguistiquement et culturellement anglophone. Le collège a offert une opportunité à des Canadiens français de faire leurs premiers pas vers le développement professionnel et académique militaire dans leur langue maternelle et dans un environnement culturel francophone. En 1951, un an avant que le CMR Saint-Jean a ouvert ses portes, les francophones de la FAC représentaient 6,9 pour cent du corps

des officiers, dont environ 15,3 pour cent des officiers de l'infanterie canadienne. Ces chiffres ont été particulièrement révélateurs puisque les Canadiens français représentaient 29 pour cent de la population canadienne à ce moment-là.

En 1951, un comité spécial dirigé par le brigadier-général Paul Bernatchez, le seul officier francophone de haut rang à Ottawa à l'époque, a été mis en place pour étudier et corriger la sousreprésentation des francophones au sein des FAC. Les résultats de cette enquête ont été publiés dans deux documents aujourd'hui connus sous les noms de Rapport Bernatchez et Rapport Jetté. Ces rapports ont ensuite été présentés à Brooke Claxton, le ministre de la Défense nationale de l'époque, pour aider sa prise de décision.

À l'éducation militaire l'époque, spécialisée était fournie par le CMRC à Kingston et le Canadian Services College, Royal Roads (rebaptisé plus tard Royal Roads Military College), à Victoria, Colombie-Britannique. Les élèves francophones avaient peu ou pas d'accès à ces institutions. Tout d'abord, la barrière linguistique était importante, car les deux collèges offraient une éducation en anglais seulement. Deuxièmement, compte tenu que l'éducation relève des compétences provinciales, il y avait des différences ente le système d'éducation du Québec et ceux des autres provinces. Par exemple, pour un diplômé d'une école secondaire du Québec, une année supplémentaire était nécessaire pour se qualifier pour

l'admission aux collèges à l'extérieur de la province. Ces considérations ont été au cœur de l'argument pour créer un collège militaire francophone au Québec.

L'Université Laval à Québec avait initialement présenté un plan pour établir un programme de premier cycle de trois ans dans les sciences militaires qui comprendrait également une formation approfondie en anglais. Toutefois, selon la tradition au Québec, l'éducation était également influencée par l'Église catholique romaine. Ainsi, deux ecclésiastiques, l'abbé Jacques Garneau et Mgr Maurice Roy, étaient supposés être largement impliqués dans le nouveau programme. Toutefois, le ministre Claxton considérait l'engagement religieux dans les affaires de l'éducation militaire comme indésirable et le plan a été mis de côté.

L'idée de créer un collège militaire francophone a graduellement mobilisé l'opinion publique et a créé un lobby fort qui a convaincu le gouvernement fédéral d'agir. La campagne a été menée par Léon Balcer, un député conservateur de Trois-Rivières. Cependant, plusieurs points principaux devaient être pris en considération pour avancer le plan. Le nouveau programme devait être adaptée aux spécificités du système d'éducation du Québec et se conformer aux normes déjà établies par les deux collèges, à Kingston et à Victoria, comblant ainsi l'écart entre les deux systèmes d'éducation. Enfin, il devait être un programme complet, autonome fonctionnant sur le territoire



Cadets marching at CMR Saint-Jean. (Image credit: Corporation du Fort St-Jean.)

du Québec et, surtout, répondre aux besoins des FAC.

Brooke Claxton a annoncé le 12 juin 1952 la création d'un collège militaire au Québec. Trois emplacements ont été examinés : la ville de Québec, Trois-Rivières et Saint-Jean. Ce dernier emplacement avait l'avantage d'être un point de repère dans l'histoire militaire du Canada. Situé à une quarantaine de kilomètres au sud-est de Montréal, sur la rivière Richelieu, Saint-Jean a vu sa première forteresse érigée au XVII siècle. Les cours ont commencé à Saint-Jean le 22 septembre 1952 et la cérémonie d'ouverture officielle du Collège militaire royal de Saint-Jean a pris place le 13 novembre sous la présidence du gouverneur général du Canada, Vincent Massey.

Les premiers étudiants à franchir les portes du collège étaient au nombre de 125. Par la suite, la population étudiante s'éleva progressivement, en raison de l'addition de deux ans d'études universitaire à l'année pré-universitaire existante. Le collège a injecté un grand nombre d'officiers bilingues au sein des forces armées, mais, en 1966, le bilinguisme restait toujours un défi majeur. Telles étaient les conclusions de la Commission royale sur le bilinguisme et le biculturalisme, dont les résultats ont été repris par le chef d'état-major de la Défense, le général Jean-Victor Allard. La discussion du bilinguisme atteint son sommet en 1969, lorsque le Parlement a adopté la Loi sur les langues officielles (1969), la loi fédérale qui élevé le français et l'anglais au rang de langues officielles dans la fonction publique fédérale. Pour accroître la présence de la langue française dans le corps des officiers de la FAC, le général Allard a annoncé qu'une formation complète de premier cycle en sciences physiques et en sciences de l'administration serait offerte dès l'automne 1970 à Saint-Jean. Cette initiative audacieuse a nécessité un partenariat avec une université qui serait disposée à accorder les certificats appropriés aux diplômés du collège.

L'Université de Sherbrooke est devenue le partenaire officiel du collège dès avril 1971.

Ce partenariat a donné au CMR Saint-Jean un coup de pouce important. En 1980, les premières étudiantes du Programme de formation des officiers de la Force régulière (PFOR) ont franchi les portes du collège. Pourtant, le premier groupe d'élèves-officiers féminins faisait son entrée au collège en 1979 dans le cadre du Programme de formation universitaire pour les anciens militaires du rang (PFUMR). Six ans plus tard, en 1985, quand l'Assemblée nationale du Québec a adopté le projet de loi 222, le collège est devenu une université dotée du pouvoir de décerner ses propres diplômes de premier cycle. Au début des années 1990, le CMR Saint-Jean avait décerné environ 1.400 diplômes de premier cycle.

En 1995, le gouvernement libéral de Jean Chrétien annonçait dans son budget des coupures draconiennes qui

Autonomne et renseigné

touchaient particulièrement le ministère de la Défense nationale. Au début, le gouvernement a proposé des réductions du nombre de bases militaires et de centres de recherché. Cependant, ces coupures draconiennes ont aussi affecté le CMR Saint-Jean et le Royal Roads Military College, qui ont été fermés par la suite. La fermeture a non seulement affecté les 600 étudiants inscrits au CMR Saint-Jean à l'époque, mais a aussi menacé l'avenir de la représentation francophone dans les FAC.

Par ailleurs, la sempiternelle question de l'écart d'un an entre le régime québécois d'études secondaires et le système universitaire ontarien refit surface. Il était clair qu'une année préparatoire était nécessaire pour que les élèves du Québec puissent appliquer à CMRC. La solution est venue d'une source inattendue lorsque le Conseil économique du Haut-Richelieu, un organisme local, a proposé d'offrir des cours universitaires préparatoires au CMR Saint-Jean en partenariat avec le Cégep de Saint-Jeansur-Richelieu. Cette solution a créé un accès pour les étudiants du Québec et a encore une fois offert aux élèves-officiers anglophones l'opportunité d'améliorer leur compétence dans leur langue seconde dans un environnement culturel francophone.

Le programme de l'Année préparatoire a été bien accueilli. Les élèves anglophones, en particulier ceux de l'Ontario, ont vu le programme comme un moyen idéal pour améliorer leur français et pour bénéficier d'une préparation supplémentaire avant d'être admis à Kingston. Ainsi, le nombre de candidats de l'Ontario à Saint-Jean plus que triplé entre août 2001 et mai 2006 passant de 41 à 134 personnes. Néanmoins, le nombre de francophones et les étudiants du Québec ont continué de baisser pour plusieurs raisons. Tout d'abord, la fermeture initiale du collège et la controverse qui lui est associée ont continué à nourrir une perception publique négative, en particulier dans les milieux francophones. Deuxièmement, les normes d'admission et de sélection

du collège militaire ont été modifiés, contribuant à la baisse des candidats du Québec. Finalement, les activités de promotion et de recrutement étaient désorganisées et incohérentes, affaiblissant ainsi la visibilité du programme d'année préparatoire au Québec.

Pourtant, le ministère de la Défense nationale a continué de promouvoir le programme d'année préparatoire et d'utiliser sa pleine capacité. Au début de 2007, il est devenu clair que le programme avait rempli son mandat, ouvrant ainsi de nouvelles possibilités d'expansion. Le CMR Saint-Jean a rouvert ses portes le 19 juillet 2007 en tant qu'unité distincte des FAC, relevant directement du commandant de l'Académie canadienne de la Défense. Il avait aussi le nouveau mandat d'offrir une formation collégiale reconnue par le ministère de l'Éducation du Québec, en sciences humaines ou en sciences de la nature, d'une durée de deux ans. De plus, les élèves ayant déjà obtenu une formation collégiale pouvaient suivre un programme universitaire d'une année, équivalant à la première année universitaire du Collège militaire royal de Kingston. Équipé avec les ressources nécessaires, des installations, un demisiècle d'expérience dans le domaine militaire et de l'éducation scolaire et un fort désir de contribuer à la nature bilingue des Forces armées canadiennes, le CMR Saint-Jean était sur le point de redevenir une institution de niveau universitaire.

Mai 2016 a marqué le début d'une nouvelle ère pour le collège lorsque le gouvernement libéral a annoncé que des études postsecondaires seraient réintégrées au CMR Saint-Jean. Dans son annonce faite à la Chambre des communes et réitérée dans un message Twitter subséquent, ministre Sajjan a souligné que « le retour du CMR Saint-Jean au statut universitaire a été un reflet du Canada et de notre patrimoine bilingue ». Le nouveau CMR Saint Jean qui, de concert avec le CMRC Kingston, constitue une institution nationale importante, cherche à remplir la mission qui lui a été initialement accordée dans les années 1950 : rendre le corps des officiers des forces armées canadiennes bilingues en théorie et en pratique. ■

Cet article repose principalement sur les ouvrages suivants de Jacques Castonguay : Le Collège militaire royal de Saint-Jean (Montréal, Éditions du Méridien, 1989) et Pourquoi a-t-on fermé le Collège militaire de Saint-Jean ? (Montréal, Art global, 2005). Il a été publié pour la première fois le 8 septembre 2016 dans le Blog de l'Institut de la CAD: The Forum.

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LES STRATÉGIES ARMÉNIENNES POUR GARDER LE CONTRÔLE DU HAUT-KARABAKH

par Michael Lambert

L a résurgence du conflit dans le Haut-Karabakh, territoire séparatiste de l'Azerbaïdjan et sous contrôle de facto de l'Arménie, interroge sur la légitimité de la Communauté internationale à prendre position dans les conflits qui animent l'espace post-soviétique.¹ Pour les membres de l'ONU, notamment pour les États-Unis, la France et la Grande Bretagne, le Karabakh est une partie de l'Azerbaïdjan en raison de la transition du droit soviétique qui plaçait cette région sous l'influence de Baku.²

Le territoire est peuplé d'habitants d'origine arménienne, l'influence de la culture chrétienne y est palpable, par opposition à l'Islam pratiqué en Azerbaijan, et on retrouve dans cette enclave un héritage culinaire, artistique et architectural indéniablement proche de celui de l'Arménie.³ Le choix de Staline de rattacher à l'Azerbaïdjan pourrait dès lors s'apparenter à un paradoxe ou à un manque de connaissance de cette partie du monde plutôt qu'à un choix murement réfléchit, ce qui n'était pas le cas. En effet, le rattachement de minorités antagonistes se retrouve à travers l'ensemble de l'Union soviétique, ce processus constituant la pierre angulaire d'une méthode permettant d'assoir le contrôle de Moscou sur les pays en périphérie de l'URSS. Le choix de mettre ensemble le Karabakh et l'Azerbaijan ne constitue dès lors qu'un cas parmi tant d'autres, à l'image de l'Abkhazie et de l'Ossétie du Sud rattachées à la Géorgie, la Transnistrie en Moldavie, ou encore les minorités russophones dans les pays Baltes. Avec cette approche, Staline pouvait jouer sur les sensibilités identitaires de ces régions pour créer des tensions au sein des États, les menacent d'une potentielle guerre civile si ces derniers n'acceptaient pas de mettre en œuvre les directives du Kremlin.

Après la fin de la Guerre froide, et l'effondrement de la puissance de Moscou, les régions rattachées arbitrairement souhaitent une plus large autonomie et entrent souvent en confrontation avec les pays dont ils dépendaient pendant la période soviétique, et ce pour des motifs allant de la préservation de leur identité au refus de partager leurs richesses.

Dans le cas du Haut-Karabakh, un conflit sanglant éclate entre les azéris, qui considèrent que le territoire doit être sous leur supervision comme pendant la période soviétique, et d'autre part les habitants du Karabakh qui souhaitent un rattachement au reste de l'Arménie car ils en sont proche culturellement. Cette confrontation violente qui prendra fin en 1994 donnera naissance à ce que l'on appel un "conflit gelé" et pose plusieurs problèmes à l'époque contemporaine.

La premier n'est autre que les relations bilatérales entre l'Arménie et l'Azerbaïdjan dans le contexte postsoviétique, ou ces deux États rompent le dialogue, enterrant toute possibilité de lancer un projet d'Union du Caucase du Sud, et donc d'autonomie vis-à-vis des grandes puissances telles que la Russie et la Turquie. Dans un deuxième temps, le conflit du Karabakh pose problème en raison de la présence des troupes du Karabakh qui occupent des territoires peuplés d'azéris - les "territoires occupés" - afin de créer une zone tampon entre l'enclave et l'armée azerbaïdjanaise. Cette occupation arbitraire pose plusieurs problèmes allant du domaine humanitaire avec les difficultés que connaissent les azéris pour reloger les déplacés internes / réfugiés, au dialogue diplomatique complexe pour la mise en place d'un processus de paix car ne concernant plus désormais le Karabakh historique, mais également l'affiliation des territoires occupés. Dans un dernier temps, les occidentaux considèrent que le Karabakh est une partie de l'Azerbaïdjan conformément au droit international qui hérite du droit soviétique, niant la réalité du terrain par crainte de voir naitre chez eux des revendications identitaires à l'image de l'indépendance de la Catalogne, de l'Écosse ou bien des Flandres. La Russie, pour sa part, préfère laisser la situation dans cet état de manière à inciter l'Arménie à dépendre totalement d'elle pour assurer sa sécurité dans une région ou l'Azerbaïdjan connait un regain de puissance conséquent.⁴

Pour la Russie, le Karabakh est une source de problèmes et un moyen d'assoir sa puissance dans le Caucase du Sud.⁵ Le conflit affaiblit économiquement l'Arménie, qui est la principale alliée du Kremlin face à la Turquie qui est membre de l'OTAN. Qui plus est, l'attitude ambiguë sur l'affiliation de la région laisse toujours planer un doute sur l'intention



Une carte de la région du Caucase du Sud. (Crédit image : Caucasus Initiative.)

de Moscou de solutionner le conflit de manière définitive, ce qui la discrédite aux yeux de la Communauté internationale mais aussi des pays du Caucase.

Parallèlement à ces problèmes, l'ambiguïté confère également plusieurs avantages. Comme mentionné précédemment il est impossible d'envisager une Union du Caucase du Sud sans résoudre les conflits, ce qui laisse la porte ouverte pour une ingérence totale du Kremlin dans une région qui dispose pourtant de tous les avantages pour prospérer économiquement. À cela s'ajoute la dépendance totale de l'Arménie qui se retrouve dans la nécessité de laisser la Russie disposer d'une base militaire russe sur son territoire. En effet, depuis la fin de la Guerre froide, l'Arménie doit faire face à de nombreuses difficultés économiques tandis que l'Azerbaïdjan dispose de ressources en gaz et pétrole qui en font le pays le plus prospère de la région. Cette manne énergétique permet aux azéris de moderniser leur armée avec des équipements supérieurs à ceux des arméniens. En conséquence, les arméniens doivent demander l'aide de Moscou pour assurer leur sécurité, avec des accords bilatéraux qui stipulent

qu'une attaque contre le pays enclenchera une réponse immédiate de la part du Kremlin. L'Arménie se retrouve dès lors dans l'obligatoire de laisser le Kremlin s'ingérer dans sa vie militaire afin d'endiguer toute possible attaque des azéris, constituant un avantage stratégique certain pour Moscou qui place ses troupes au centre du Caucase et à proximité de la Turquie.⁶

La stratégie arménienne pour garder le contrôle du Haut-Karabakh est donc de privilégier à tout prix la relation singulière et amicale avec la Russie, au risque d'écarter définitivement toute perspective d'adhésion au sein de l'OTAN et de l'Union européenne, ou simplement d'indépendance. Un exemple de ce choix stratégique risqué se retrouve dans le souhait d'intégrer le projet d'Union eurasiatique (Union Économique Eurasiatique) en 2015. Ce format de coopération renforcé exclut tout rapprochement avec l'Alliance et l'UE et enterre définitivement la possibilité de se détacher de l'influence de la Russie tant sur un plan économique que culturel en raison des institutions régionales dont le pays devient membre. L'Arménie est cependant sortie perdante de cette

stratégie temporaire pour s'assurer le soutien de la Russie pour accroitre son influence dans le Haut-Karabakh. Les arméniens espéraient celle-ci que reconnaisse la région comme une partie de l'Union eurasiatique, et donc du pays, mais ce ne fut pas le cas. Implicitement, ces derniers espéraient également qu'en cas d'attaque de la part des azéris, la Russie interviendrait militairement défendre le pour Karabakh, avec possible envoi un "peacekeepers" de

comme en Abkhazie. Au contraire, les azéris qui ont lancé une attaque en avril 2016 n'ont rencontré aucun russe sur leur passage, et Moscou s'est imposé comme médiateur dans le conflit, ne soutenant aucun parti plus que l'autre.⁷

Dès lors, le Karabakh continue d'être isolé, à attendre un mouvement de la Communauté internationale qui n'arrivera pas, et de compter sur ses soldats et leur connaissance du terrain pour garantir la sécurité des habitants. Le Gouvernement de la République du Karabakh n'hésite pas également à installer dans les territoires occupés les réfugiés d'origine arménienne qui viennent de Syrie, et ce afin de légitimer leur occupation d'un territoire plus vaste que le Karabakh historique. Avec cette approche qui vise à instrumentaliser les réfugiés, il apparait comme évident qu'aucune solution diplomatique et pacifique ne saurait émerger dans cette partie du monde, qui pourtant bénéficie de tous les avantages pour devenir une puissance autonome si elle envisageait de mettre en place une coopération régionale similaire à celle de l'Union européenne.

Les habitants du Karabakh, arméniens et azéris attendent dès lors des États-Unis ou de la Turquie une intervention pour débloquer la situation, une impossibilité dans la mesure ou le conflit sert les intérêts de la Russie qui vend des armes à l'ensemble des protagonistes, et laisse donc reposer son influence sur l'héritage de la diplomatie stalinienne.

Doctorant en Histoire des Relations internationale à Sorbonne Universités (Paris-Sorbonne, France) et en Relations internationales à l'Université de Tampere (Finlande), ses recherches portent les relations entre l'Union européenne et l'OTAN avec la Russie dans l'espace postsoviétique. Après une expérience à l'IRSEM - Ministère de la Défense française et un séjour de recherche à l'Université d'Ottawa en tant que chercheur invité, il lance le projet Caucasus Initiative en avril 2016.



Caucasus Initiative a été lancé en avril 2016 et rassemble plusieurs chercheurs en Europe et à l'international. Le projet

se propose d'analyser les mutations géopolitiques, juridiques et migratoires dans le Caucase Sud (Géorgie, Arménie, Azerbaïdjan, Abkhazie, Ossétie du Sud et Haut-Karabakh).

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PARANOID OR PRAGMATIC? WHAT PAKISTAN'S POLICY IN AFGHANISTAN CAN TELL US ABOUT INTERNATIONAL RIVALRY

by John Mitton

With world attention focused on conflict in Syria and Iraq, the war in Afghanistan lurches along, seemingly further and further from resolution even as the United States attempts to extricate itself from the country. Canada, along with many NATO allies and members of the now-terminated International Security Assistance Force (ISAF), have already left. The Taliban itself is resurgent, claiming significant gains – including control of territory – in both the South (Helmand Province) and North (Kunduz Province) of the country.¹

The recognition - slow at first, but now widespread - that Pakistan has served as a destabilizing influence via its continued support for elements of the Taliban insurgency has effectively soured and undermined ostensible cooperation between Washington and Islamabad. Despite years of diplomatic pressure and extensive foreign and military aid, the US has been unable to alter Pakistan's behaviour in this regard. While not the sole or determining cause, Pakistan's intransigence is generally recognized as having significantly contributed to the essential failure of the Afghanistan mission.

The purpose of this paper is not an overall assessment of the war in Afghanistan, nor even a more limited exercise in policy prescription or projections moving forward. Rather, I foreground the perplexing 'Pakistani dimension' of the Afghanistan conflict as an example of 'rivalry intervention' in international politics, both as a means of better understanding Islamabad's behaviour and as a potentially edifying example of a phenomenon which can be expected to occur elsewhere in the future (and is already occurring by many accounts in places like Syria).

The Pakistani Dimension

While the rationale for Pakistan's continued support for elements of the Taliban is now generally accepted as opposition to Indian influence in Afghanistan, assessments of this calculus typically dismiss such perceptions and priorities as 'out-dated' or 'paranoid'; hardline elements in the Pakistani military and intelligence apparatus (most prominently the Inter-Services Intelligence [ISI]) are blamed for carrying an unrealistic and largely self-serving (in the sense of bureaucratic self-interest) animosity towards India, undermining the real and viable interests Pakistan has in creating a prosperous and stable Afghanistan along its northern border.

Much of this is undoubtedly true, particularly as regards the benefits that a stable Afghanistan would offer, and even with respect to how much Pakistan should realistically fear Indian influence in the country. As will be discussed below, Indian interests in Afghanistan are not primarily, if at all, antagonistic toward Pakistan, and there is little evidence that the more nefarious interpretations (encirclement, destabilization, and eventually even dismemberment of the Pakistani state) are particularly plausible.² The United States, along with other members of the international community, have undoubtedly expended much energy and effort in making this point to officials in Islamabad, to seemingly little avail. And so, the refrain goes, Pakistan's perceptions vis à vis Indian influence in Afghanistan are unreasonable, irrational, and, eo ipso, paranoid or delusional. As Special US Representative for Afghanistan and Pakistan Richard Olson recently noted, albeit diplomatically: "I sometime feel that the degree of Indian influence on Afghanistan may be overestimated in Pakistan."³

There is very little that can be practically done or analytically said in the face of this conclusion, absent continued exhortations that the Pakistanis reassess and adopt a view more inline with that held by Western analysts and policy-makers. At the same time, the US has turned to New Delhi, actively encouraging increased Indian involvement, particularly as it lays the groundwork for a post-withdrawal Afghanistan – once the Americans leave (or reduce their presence even further), it is hoped that India may be a productive partner in maintaining stability and supporting the government in Kabul (even if, as mentioned above, it looks less and less likely that there will be much if any 'stability' to maintain).

In late September 2016, for example, the US initiated trilateral talks with the

Indians and Afghans in New York, reaffirming a shared interest in Afghan security moving forward, and looking for ways to "coordinate and align [Indian and American] assistance with the priorities of the Afghan government."⁴ Similarly, in late August 2016, US General John Nicholson (current commander of the American mission in Afghanistan) publicly called on New Delhi to increase its military aid to Kabul.⁵ Needless to say, these overtures have irked the Pakistanis; yet if the perception is that Islamabad is unreasonable in this regard, then like a child's tantrum in a supermarket its reaction will likely be ignored - as any parent can council, no amount of logic can dissuade the emotionally overcharged.⁶

If Pakistan's protestations are not 'objectively' sound (from the West's point of view), however, we might do well to consider them subjectively. More specifically, the recognition that Pakistan and India are engaged in an enduring international rivalry suggests that Pakistan's perceptions of Indian influence in Afghanistan are conditioned by the broader relationship and ongoing history between the two South Asian nations. This 'lens' of rivalry colours their assessment of the stakes at hand. The Afghanistan issue is not viewed independently either of ongoing points of contention (such as the territorial dispute over the region of Jammu and Kashmir) or of the behavioural indices and inferences derived from a history of repeated conflict, crisis, and war.

It is this second dimension that is most often overlooked. In the context of a shared bloody past (which includes four wars), decision-makers in Islamabad (as well as, it must be said, in New Delhi) consider the prospect of renewed confrontation quite likely. This is true even following the introduction of nuclear weapons, which has essentially precluded major war but has equally encouraged low-level and non-conventional competition as a result of the stability-instability paradox.⁷ As a result, the Afghanistan theatre is assessed with respect to its potential implications for a hypothetical future confrontation with India – an eventuality that outside observers might recognize as improbable or unlikely (and therefore unsound as a basis for making policy) but which weighs heavily in the minds of leaders (both within the military and without) in Islamabad.

There exists, in other words, a 'rivalry dilemma'⁸ in which perceptions of present behaviour (for example increased Indian involvement in Afghanistan) are shaped in the context of an expectation of future confrontation. As a consequence, Pakistan attempts to block, undermine, or counteract any and all Indian interests in Afghanistan, not because it is paranoid or delusional *per se*, but rather because it views Indian involvement as part of the broader ongoing rivalry between the two countries.

India in Afghanistan

Before pursuing this argument further, it is worth taking stock of Indian interests and activities in Afghanistan in order to better assess the Pakistani point of view. As intimated above, the argument is not that India's true designs are in fact aggressive, or that Pakistan is ultimately justified in its policy choices. Rather, it is suggested that the dynamics of international rivalry drive Pakistan to 'balance' against Indian involvement, as even seemingly well-intentioned development aid can be threatening in the context of the rivalry dilemma.

Following the American intervention in 2001, Indian involvement in Afghanistan was modest,⁹ likely because many recognized that significant overt activity would draw Pakistani resistance (at a time when Islamabad was still considered a potentially helpful ally). Over time, however, the scope of the Indian presence has expanded. In terms of investment and developmental aid, New Delhi has offered over US\$2 billion, making it the fifthlargest bilateral donor to Afghanistan.¹⁰ This spending has included significant infrastructure projects, including health, education, energy and communication, as well as smaller but symbolically significant contributions such as the building of the Afghan parliament.¹¹

More controversially, New Delhi has over the last several years pursued increased security ties with Kabul. India was the first country to sign a bilateral "strategic partnership agreement" with Afghanistan, and has provided military equipment and training to Afghan security forces.¹² While initial military predominately transfers included defensive equipment, such as armoured check-points and watch towers,¹³ more recently Afghanistan has received 105mm howitzer artillery pieces as well as several Mi-25 gunships.¹⁴

The scope of Indian interests in Afghanistan is wide, and includes economic (particularly access to Central Asian energy), security (preventing the spread of Islamic extremism), and strategic (establishing its status as a regional, and ultimately, global power). Each of these interests implicates Pakistan to a greater or lesser degree. Most obviously, continued Pakistani support for Islamists in Afghanistan fuels Indian concerns regarding extremism in the region more broadly. More narrowly, this behaviour precludes India's economic opportunities. Finally, from a regional perspective, India's desire to assert and establish its power implicitly requires a maintenance (or even extension) of its status quo dominance over Pakistan.

The Pakistani Response

Back in 2010, reporter Steve Coll described a meeting that put the Pakistani position with respect to Indian activity in Afghanistan in stark terms: "In March [of 2010], two Pakistani generals—Ashfaq Kayani, the Army chief, and Ahmed Pasha, the head of ISI—met with [Afghan President Hamid]



Pakistan Army Brig. Inam Haider Malik briefs Afghan National Army Maj. Gen. Mohammad Zaman Waziri on border activities. (Image courtesy of Capt. Jarrod Morris, US Army.)

Karzai in Islamabad, and signalled that they could help cool down the Taliban insurgency. In exchange, Kayani said, the Karzai government must 'end' India's presence in Afghanistan. According to a senior Afghan intelligence official, he said, 'There cannot be any type of Indian presence in Afghanistan—any type.^{**15} Frederic Grare summarizes the scope of this point of view: "According to Pakistan, whatever India does in Afghanistan is a ploy against Pakistan, be it economic investment, infrastructure, or any related matter.^{**16}

As has been widely documented, Pakistan continues to support elements of the Afghan Taliban (particularly the Haqqani network), with Indian interests often the direct targets of insurgent attacks.¹⁷ The Indian consulate in Jalalabad has been attacked four times since 2007, most recently in March 2016,¹⁸ while the 2008 attack on the Indian embassy in Kabul (which killed 54 and wounded 141) was alleged to have been "directed by Pakistan's intelligence service."¹⁹

Ultimately, as Christine Fair concludes, "Pakistan will oppose India's engagement [in Afghanistan] at all costs."²⁰

Space constraints preclude a more exhaustive discussion of Pakistan's activities in Afghanistan here, but the general consensus is that Pakistan remains involved with the Taliban, and that Indian interests have been and are specifically targeted in many attacks.²¹ It can reasonably be inferred, therefore, that Islamabad's main priority in Afghanistan is counteracting India, and not stabilizing the country, leaving it at odds with US (and NATO) goals over the last 15 years.

A Rivalry Explanation

The ubiquity of rivalry dynamics across history severely undermines the idiosyncratic explanations of Pakistani behaviour based on irrational fear of, and emotional hatred toward, India. The Pakistanis are not uniquely incompetent in this regard. The United States, for example, expended significant blood and treasure in places like Vietnam, Laos, and Angola (among others) in the oftentenuous belief that Soviet involvement and advancement in such countries had to be resisted at all costs. In the 1970s, the Israelis opted to allow more or less free reign for Palestinian terrorists in southern Lebanon rather than countenance a significant Syrian military presence in the region, even though in private both Israel and Syria wanted nothing more than to avoid direct conflict.²²

In 2015, following the release of classified Saudi documents by WikiLeaks, reporters for the *New York Times* were "surprised" to observe that "the documents...illustrate a near obsession with Iran, with diplomats in Africa, Asia and Europe monitoring Iranian activities in minute detail and top government agencies plotting moves to limit the spread of Shiite Islam."²³ Again, *mutatis mutandis*, this description could apply wholesale to American attitudes vis à vis the Soviet Union and communism during the Cold War. The point is that rivalry dynamics exert a

significant influence on the perceptions of decision-makers, to the point where the specific emotional histories and animosities, as well as the domestic political configurations and personal psychologies of particular leaders are, if not irrelevant, at least unnecessary explanations for as behaviour.

We should therefore not be surprised that Islamabad has resisted US demands to alter its policies in Afghanistan, nor should we expect this orientation to significantly change moving forward. It also becomes relatively clear that encouraging Indian increased involvement, whether

through arms transfers or more broadly as part of the official peace process, is likely to entrench rather than soften the Pakistani position (while this might seem obvious, some have suggested that US and Afghan overtures to India have been intended as a "signal" to Pakistan in yet another attempt to induce cooperation²⁴). The US may calculate that India's cooperation and engagement is worth the price in this regard; fair enough, but at the very least it must be recognized that such an orientation effectively precludes Pakistani acquiescence, let alone support.

The most obvious solution to this problem is for India and Pakistan to cease being rivals. Unfortunately, the scholarly literature on rivalry suggests that terminating such endemically hostile relationships is exceedingly difficulty, particularly for third-party mediators. Most often they end as the result of some kind of political shock (war, revolution, etc.), and not through negotiation



alone.²⁵ Emphasizing the common threat of Islamic extremism (the Pakistani state is also, after all, a target of such groups) is one potential avenue for cultivating some kind of re-evaluation in Islamabad, though this threat has been growing for several years, and the dynamics described in this paper have not been attenuated; in fact seemingly the opposite.

Conclusion

While there seems little that might be done with respect to solving this issue in Afghanistan, policy-makers can draw meaningful lessons for other cases moving forward, particularly with respect to the intensity and intractability of rivalry concerns. These are not delusional or erratic priorities that can be expected to either (a) not be present in more 'rational' countries or leaders or (b) wither in the face of logical argument regarding substantial economic, material or even long-term strategic benefit. For instance, emphasizing the potential economic opportunities of cooperation in Afghanistan – such as with the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline – has done little to temper Islamabad's intransigence.

Pakistan's policies in Afghanistan mirror rivalry behaviour in other historical cases. Concerns about the future are amplified between states who have experienced conflict and tension in the past, and who therefore anticipate renewed conflict in the future. Whatever occurs in the interregnum - which is to say the present - cannot be understood outside of this continuity. From the perspective of outside observers, Pakistan's leaders may well display outsized hostility toward, and unreasonable suspicion of, Indian activities; for those involved, however, these concerns are real, rational, and perhaps most importantly (from the point of view of third-party policy-makers navigating the environments in which such rivalries are present) predictable.

Proxy conflicts between rivals Iran and Saudi Arabia are currently underway in

places like Yemen and Syria. Recognizing the root of this behaviour does not offer any obvious means for mitigating it, particularly given the complexity of such cases. Yet it does suggest that encouraging the increased involvement of one side, as the US has done with respect to Saudi Arabia in Syria,²⁶ risks exacerbating already volatile situations.

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Notes

- Scott Borgerson, "Arctic Meltdown: The Economic and Security Implications of Global Warming," *Foreign Affairs* 87, 2 (2008): pp. 63-77. Brookings Institution, "Forging an enduring partnership with Afghanistan," 6 October 2016 https://www.brookings.edu/ research/forging-an-enduringpartnership-with-afghanistan/.
- 2. Many analysts are dismissive of the purported Pakistani belief that Afghanistan is a crucial venue through which to achieve "strategic depth" vis-à-vis India. In case of conventional conflict with India, the logic goes, Pakistan may need to retreat into Afghan territory to wait out attacks and reorganize militarily. See for example Centre for Land Warfare Studies, "Pakistan's Concept of Strategic Depth," http:// www.claws.in/publication-detail. php?pID=60. Even more extreme scenarios are said to occupy the minds of Pakistani decisionmakers, such as the existence of a "US-Indian-Afghan alliance... aimed at undermining Pakistani influence in Afghanistan and even dismembering the Pakistani state." According to this belief, an Indian-influenced Afghan regime

"would allow an encircling India to create a backdoor military threat to Pakistan." See Barnett R. Rubin and Ahmed Rashid, "From great game to grand bargain," *Foreign Affairs* 87, 6 (2008): p. 36. As mentioned, these perceptions are typically dismissed as inaccurate and even delusional.

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- United States, Department of State, "Afghanistan-India-US Consultations," 21 September 2016, http://www.state.gov/r/pa/prs/ ps/2016/09/262266.htm.
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- 6. An extension of this metaphor would be the US attempting to placate the Pakistanis with toys and candy (foreign and military aid) or force compliance with threats of punishment or the suspension of allowance (such as the decision in August 2016 to withhold US\$300 million in military aid). Neither tactic has worked. See Missy Ryan, "Pentagon withholds \$300 million in military aid to Pakistan," The Washington Post, 3 August 2016, https://www.washingtonpost. com/world/national-security/ pentagon-withholds-300million-in-military-aid-topakistan/2016/08/03/25845d54-5986-11e6-9aee-8075993d73a2 story.html.
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- Similar in a sense to the famed 8. 'security dilemma' of international relations theory, in which defensive measures - designed to enhance security – can be interpreted as aggressive, prompting countermeasures and a consequent diminishment of security. In the rivalry dilemma, past experiences in the relationship ensure that most if not all behaviour is interpreted as aggressive, necessitating defensive or balancing behaviour, which can lead to confrontation between two defensive or status quo states.
- 9. Of course, Indian involvement sensu lato precedes Operation Enduring Freedom, going back at least to its support for the Northern Alliance against the Taliban in the 1990s. Any complete assessment of the proxy battle between India and Pakistan in Afghanistan requires a discussion of this history. For the purposes of this article, however, we can concern ourselves with only the post-2001 era. Because the United States decisively overthrew the existing power structure in the country (the Taliban government), Indian support for the Kabul government established by the Bonn Agreement constitutes a distinct intervention with respect to its earlier involvement.
- Alyssa Ayres, "Why the United States Should Work With India to Stabilize Afghanistan," Council on Foreign Relations, April 2015, http://www.cfr.org/afghanistan/ why-united-states-should-workindia-stabilize-afghanistan/p36414.
- 11. Shashank Joshi, "India's Af-Pak strategy," *RUSI Journal* 155, 1 (2010): p. 22.
- 12. Charles Tiefer, "A Proxy War Between India and Pakistan is

Under Way in Afghanistan," *Forbes.com*, 13 August 2016 http://www.forbes.com/sites/ charlestiefer/2016/08/13/warbetween-india-with-the-us-andpakistan-started-this-week-inafghanistan-proxy-war-that-is/.

- 13. Harsh V. Pant, *India's Changing Afghanistan Policy: Regional and Global Implications* (Carlisle Barracks, PA: US Army War College Strategic Studies Institute, 2012).
- 14. Snow, "US Speeds Afghanistan's Pivot to India."
- Steve Coll, "War by other means: Is it possible to negotiate with the Taliban?" *The New Yorker*, 24 May 2010, p. 51.
- 16. Frédéric Grare, "Pakistan," in Ashley Tellis and Aroop Mukharji, eds, *Is a Regional Strategy Viable in Afghanistan?* (Washington, DC: Carnegie Endowment for International Peace, 2010), p. 21.
- 17. One of the more significant revelations of the 2010 "Afghanistan war logs" release by WikiLeaks was the ample documentation detailing ISI involvement in attacks in Afghanistan targeting Indian interests. For instance, an entry on 18 December 2007 describes attempts by an ISI agent (identified as "SARKATEEP") to establish relations with Afghans for the purpose of conducting attacks on Indian consulships in Jalalabad, Kabul, Heart, Kandahar, and Mezar-e Sharif. Another report from 22 March 2008 details an ISI plot to offer between US\$15,000 and \$30,000 as reward for killing Indian nationals working in Afghanistan. See "Afghanistan: The war logs," http://www.theguardian.com/ world/the-war-logs+tone/news and Tiefer, "A Proxy War Between India and Pakistan is Under Way in

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- 21. For a compilation of such incidents, see South Asia Terrorism Portal, "Terrorism Attacks and Threats on Indians in Afghanistan since 2003," http://www.satp.org/ satporgtp/countries/india/database/ afganistanindianattack.htm.
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L'HIVER YÉMÉNITE

par Alexandra Dufour

e renversement de Ben Ali en Tunisie Len 2011 résonna comme une onde de chocà travers l'ensemble du Moyen-Orient. Les différents peuples se sont révoltés face à des dictatures répressives établies depuis l'ère coloniale. Tous ces soulèvements ont eu des effets extrêmement divers selon les régimes affectés. Le Yémen, influencé par ses voisins, suivit la vague révolutionnaire qui, contrairement à la Tunisie, l'emporta bien au large de la paix. En effet, le sort de Sanaa, similaire à celui de Beyrouth, se dirige vers un destin nébuleux. Afin de comprendre la crise actuelle au Yémen et de répondre à la question à savoir si l'Occident a sa place dans le conflit, nous en ferons une analyse approfondie. Nous sommes d'avis que Washington et les Européens ont un rôle strictement humanitaire et non politique, dans cette guerre. Dans cet ordre d'idée, nous nous pencherons sur les diverses oppositions à l'intérieur du pays, l'internationalisation du conflit par, entre autres, l'Arabie-Saoudite et l'Iran et finalement, discuterons des perspectives d'avenir avec les États-Unis et les différents acteurs régionaux, notamment en accordant un rôle plus particulier à l'Oman.

L'histoire du Yémen est dense, mouvementée et comme la plupart des pays de cette région du monde, souvent incomprise et mystérieuse. Sans faire une analyse exhaustive des événements historiques, il faut tout de même prendre en considération certains éléments qui distinguent le pays yéménite de ses voisins. Le Yémen, originellement appelé *Yaman*,¹ est le pays le plus pauvre du MoyenOrient et se trouve sur la liste des Nations Unies des États les moins développés, bien que sa population, la deuxième plus nombreuse dans la région, soit d'environ 25 millions d'habitants. Il se divise en trois zones distinctes : le nord, de Sada'a jusqu'à Ta'iz; le sud, englobant les zones côtières du Tahima et les plaines du golfe d'Aden allant d'Aden à Al-Ghayda; puis, le désert du Hadhramawt. Au niveau environnemental, le pays, comparativement à ses voisins, détient des ressources très limitées en pétrole, en gaz et en terres fertiles dues à la rareté de l'eau. Enfin, la population est à 60-75% sunnites chaféites et à 25-40% chiites zaydites. Historiquement, le pouvoir économique revenait aux chaféites, puis le pouvoir politique aux zaydites.² En revanche, à partir de l'unification Nord-Sud du Yémen et de la guerre civile qui s'en suivie, plusieurs pôles conflictuels émergèrent au sein de la population.

Tout d'abord, depuis 1994, l'oppression dont est victime le Sud Yémen par le Nord s'intensifia au point de faire émerger, en 2007, un mouvement pacifique alliant des jeunes et retraités militaires manifestant contre le régime d'Ali Abdullah Saleh, en place depuis l'unification du pays. Leur mécontentement s'étendait sur plusieurs domaines, notamment l'augmentation de la pauvreté; la dégradation du niveau de vie et de l'environnement; le chômage chez les jeunes; le système de patronage du gouvernement avec les tribus; le report des élections; la montée en puissance d'Al-Qaïda; la répression; les limites à la liberté d'expression des journalistes; puis, enfin, l'intention de Saleh d'asseoir son fils au pouvoir.³ La réponse gouvernementale face à ces manifestations fut loin d'être conciliante. L'incident du "vendredi de la dignité,"⁴ en démontre d'ailleurs bien l'ampleur. Cette violence entraina inévitablement une opposition du Sud contre le Nord, et la résurgence de l'idée d'une division du Yémen entre ces deux régions.⁵

Si la démission du président, en 2012, sous les pressions internationales et régionales apaisa initialement la population, les mesures, difficilement mises en place, prises par le vice-président al-Hadi n'améliorèrent pas la situation.

Pour ce qui est du conflit qui occupe principalement l'espace politique actuel, il débuta en juin 2004 dans la région de Sada'a, lorsqu'éclata la première guerre de six ans entre les Hûthis et le gouvernement, suite aux tensions croissantes entre les zaydites et les salafistes et wahhabites émigrés au Yémen d'Arabie-Saoudite. Cette révolte religieuse appelée le mouvement des "jeunes croyants" cherchait à raviver le zaydisme et l'imamat, disparus du pouvoir politique depuis 1962. Elle était dirigée par Husayn Badr al-Din al-Huthi membre éminent du GCP et du parlement,6 puis fut reprise par ses frères dans la suite des affrontements. La détérioration entre les zaydites et le régime se poursuivit jusqu'au cessez-le-feu de 2010, avant de reprendre de plus bel, malgré la démission de Saleh et son remplacement par le vice-président al-Hadi.

Il est également important de préciser que les affrontements armés entre le gouvernement et Ansar Allah, soit les Hûthis, impliquaient également d'autres tribus, notamment les Hâchid, dont le chef de l'armée al-Ahmar est issu.

Les soulèvements de 2011, la démission de Saleh et les échecs du gouvernement de transition, notamment au niveau des divisions du pouvoir pour les futures élections, donnèrent un avantage décisif aux Hûthis afin de consolider leur influence au Yémen. Ils prirent la capitale en septembre 2014, soutenu par les alliés du CGP de Saleh et signèrent un accord de paix avec le gouvernement transitoire, mais en vain. S'en suivit alors le début de l'intervention aérienne du royaume saoudien en soutien au gouvernement d'al-Hadi, accompagné d'un blocage naval coupant la population de toute aide médicale et humanitaire, dans le but d'empêcher l'Iran d'envoyer du renfort aux Hûthis.

Enfin, le développement des pôles terroristes au Yémen n'aida en rien à calmer la situation explosive dont est victime le pays. Une branche d'Al-Qaïda, l'AQAP,⁷ s'est établie dans la péninsule arabique au début 2000 et organise depuis des attaques dont la violence s'intensifie avec les années. Profitant du retrait des troupes dans certaines zones liées aux diverses affrontements internes, l'AQAP consolide son influence dans la région, tout comme le fait Daesh depuis les derniers mois, et ce, malgré l'alliance entre le gouvernement yéménite et américain établie depuis 2001 concernant un programme de contreterrorisme.

En somme, compte tenu des conflits entre le gouvernement, les tribus, l'armée, et la division de la population entre le Nord et le Sud, le Yémen ne semble pas près d'atteindre une certaine stabilité politique à court terme. À cela s'ajoute le rôle des puissances régionales et internationales.

L'internationalisation du conflit dans la dernière année est probablement un

des facteurs les plus menaçants pour la population yéménite.

De façon générale, l'ONU a participé comme médiateur entre les acteurs internes. principalement entre le gouvernement de transition et les Hûthis. De plus, elle a aidé à sortir Saleh du pouvoir. La communauté internationale avait plus d'intérêts humanitaires que politiques dans ce cas et voulait mettre un terme à l'instabilité et la violence dans la région de la péninsule arabique. En revanche, les tentatives d'accords pacifiques en Suisse en décembre 2015 furent un échec et celles au Kuwait d'avril 2016 sur la proposition du plan pacifique des Nations Unies sont sur le point de tomber à l'eau suite au rejet des rebelles de compromettre leur mainmise sur le pouvoir yéménite.

Si l'opposition de la famille hoûti peut sembler irraisonnable dans les négociations, notons qu'elle n'est pas être seule à s'opposer à un règlement humanitaire. En effet, la coalition militaire saoudienne a forcé l'organisation internationale Médecins Sans Frontière (MSF), en août 2016, a quitté le Yémen dû à ses bombardements aériens indiscriminés sur la population, notamment sur plusieurs hôpitaux.

Ensuite, bien que Téhéran offre son appui financier au niveau des armes, et politique aux chiites et à l'unification du Yémen, l'Iran n'a pas nécessairement intérêt à intervenir militairement dans le conflit, comparativement à ce qu'affirment Riyad et Washington. D'ailleurs, malgré le renouvellement des tensions Iran-Arabie-Saoudite depuis l'assassinat du Sheikh Nimr Al-Nirm par le royaume saoudien, le rôle de l'Iran au Yémen reste encore contesté quant à son ampleur.⁸ Ainsi, l'Iran n'apporte pas un support total et inconditionnel aux Hûthis. En effet, selon Al-monitor,⁹ la collaboration entre la famille hûthi et Téhéran est loin d'être aussi forte et établie que celle que la capitale islamique entretient avec le Hezbollah, et ce pour plusieurs raisons.

La position stratégique du Yémen surveillé par l'Arabie-Saoudite est loin d'être aussi importante que celle du Liban, situé au centre du Levant et bordé par Israël. Le Yémen étant difficile d'accès, un déploiement de marchandises et de soldats serait assez complexe dans les circonstances actuelles, notamment depuis le blocage naval de mars 2015 par la communauté internationale.

Le chiisme yéménite zaydite et le chiisme iranien ne sont pas issus de la même école. En effet, le zaydisme est propre au Yémen et s'inspire du cinquième Imam après la mort du Prophète, tandis que celui de l'Iran suit le douzième et infaillible Imam, Hussein. Par ailleurs, les Hûthis sont loin d'avoir le pouvoir politique et économique que détient le Hezbollah; leurs perspectives de survie et d'avenir sont plutôt réduites, faute de moyens et en raison des confrontations avec la dynamique tribale yéménite.¹⁰

Enfin, dans le contexte politique iranien actuel, Téhéran semble avoir d'autres préoccupations politiques, notamment avec les États-Unis, soit au niveau nucléaire. Selon le professeur Qadir Nasri, l'implication de la capitale islamique au Yémen ne ferait que l'affaiblir. Ainsi, le support de l'Iran pour Ansar Allah est beaucoup plus politique et financier que militaire et stratégique. Téhéran supporte le réveil islamique chiite au Yémen, mais nie toute implication de nature militaire. D'ailleurs, les Hûthis eux-mêmes nient le support de l'Iran au niveau militaire et se contentent du rôle distant de Téhéran.¹¹

Si certains acteurs sont considérés comme moins influents, d'autres ont un rôle plus concret et agressif dans les affrontements. Premièrement, le royaume saoudien a plusieurs préoccupations au Yémen et pour cette raison maintient sa campagne militaire active depuis plus d'un an. Notons que le Yémen partage sa frontière du Nord avec l'Arabie-Saoudite, que cette région est principalement chiite zaydite et qu'elle est très mouvementée depuis le début des années 2000 avec les six guerres opposant le régime de Saleh à Ansar Allah. D'ailleurs, Riyad a déjà commencé son projet de construire une clôture de sécurité de 1800km le long de la frontière.¹²

Selon la famille royale, les chiites seraient supportés par l'Iran, attisant la haine et la crainte des Saoudiens. De plus, considérons le fait que la population yéménite, pendant la révolution, demandait l'instauration d'un régime démocratique, concept poison pour Riyad. Ainsi, un Yémen fort, uni et démocratique, où le pouvoir des femmes et des jeunes serait supporté et appuyé, n'enchante pas particulièrement la famille saoudienne.¹³

En revanche, un Yémen dirigé par les Hûthis chiites n'est pas préférable. De ce fait, l'Arabie-Saoudite soutient le Président al-Hadi et tient à garder son influence traditionnelle dans cette région, notamment par un régime de patronage des acteurs politiques. Par ailleurs, Riyad, en coopération avec Washington, a mis en place, depuis 2001, un programme de contre-terrorisme au Yémen où l'AQAP s'est installée. Ainsi, les deux gouvernements supportaient et travaillaient conjointement avec Saleh et aujourd'hui avec al-Hadi, afin de mettre fin aux avancées du groupe terroriste.

Le rôle des États-Unis est plus paradoxal. En effet, si les Américains se portent comme vaillants protecteurs de la démocratie, quand il est question du Yémen, la situation semble moins évidente. En effet, pendant les soulèvements de 2011, la population yéménite prônait l'instauration d'un régime démocratique et égalitaire. En revanche, sachant que les États-Unis sont de très proches alliés de l'Arabie-Saoudite, la question démocratique en est une qui dérange. Tel que précisé ci-dessus, Riyad ne tient pas à ce que son voisin devienne un pays démocratique, puisque cela risquerait de déstabiliser l'ordre politique actuel sur son territoire.

De plus, suite aux attentats terroristes aux États-Unis en 2001, la guerre contre le terrorisme, déclarée par le Président Bush, prit énormément d'ampleur et s'étendit dans la péninsule arabique, dont la plupart des responsables étaient issus. En effet, la présence de mouvements islamiques radicaux au Yémen remonte à l'unification du pays dans les années 90 où le gouvernement, afin d'affaiblir le Parti Socialiste du Yémen (PSY), s'associa avec tous les groupes possibles, y compris les organisations radicales.¹⁴ Le régime de Saleh tolérait leur présence du moment où leurs attaques étaient dirigées contre le PSY. En revanche, ces mouvements islamistes en vinrent vite à attaquer quiconque ils considéraient comme prooccidental. Al-Qaïda représente le plus extrême et militant de ces groupes.

Après l'attaque du Cole au port d'Aden en 2000, puis celles du 11 septembre 2001, Saleh s'associa officiellement avec Washington dans la guerre contre le terrorisme. D'ailleurs, notons que l'objectif déclaré de l'organisation terroriste AQAP est de mettre fin à la présence militaire américaine sur la péninsule arabique. De ce fait, leur intérêt géographique pour un foyer extrémiste au Yémen s'explique en raison de sa proximité avec l'Arabie-Saoudite, fier allié des États-Unis.

Al-Qaïda dans la péninsule arabique est un mouvement en expansion qui connut plusieurs périodes de résurgence, malgré les efforts des Américains, des Saoudiens et des Yéménites. Dans la situation actuelle, le groupe en profite pour prendre le contrôle des zones non occupées par le gouvernement ou Ansar Allah. Ainsi, l'intérêt pour le Yémen de la part des États-Unis est essentiellement sécuritaire. Ils tentent d'affaiblir Al-Qaïda et d'empêcher Daesh de s'établir au Yémen, notamment afin de s'assurer que le conflit ne déborde pas au-delà de la frontière saoudienne. En effet, tel que précisé ci-dessus, Daesh, connu sous le nom d'Ansar al-Charia au Yémen, a émergé d'Al-Qaïda depuis déjà avril 2011. Il se réclame, notamment, de plusieurs attaques suicides récentes à Sanaa.¹⁵ Le groupe tente même de remplir un rôle social en fournissant des biens et services à la population présente sur les territoires qu'il occupe.¹⁶ Enfin, pour toutes ces raisons, la coalition et les attaques aériennes menées par Riyad sont

supportées militairement et politiquement par Washington.

Après avoir exposé les nombreux acteurs internes et externes en donnant une perspective historique au conflit, qu'en estil de l'avenir? L'une des solutions proposées par la communauté internationale et les pays voisins du Yémen est de donner le rôle de médiateur non plus à l'ONU, mais à l'Oman. L'histoire de l'Oman est celle d'un pays d'une neutralité exemplaire dans la péninsule arabique. Il entretient de bonnes relations avec tous ses voisins. La politique étrangère de l'Oman, tout comme celle des États-Unis, se focalise sur la lutte contre Al-Qaïda et les autres organisations extrémistes ainsi que sur l'exportation de leur idéologie radicale. De plus, puisque le pays partage sa frontière ouest avec le Yémen, il a tout avantage à tenter d'apaiser le conflit, d'autant plus que son territoire constitue une excellente base pour surveiller son voisin.¹⁷ Notons, également, l'importance du détroit de Bab-el-Mandeb au sud-ouest du Yémen qui constitue un passage majeur et pour la péninsule arabique et pour Washington. Par ailleurs, l'Oman a affirmé ne pas avoir de préférence quant à un Yémen unifié ou séparé, confirmant, ainsi, sa neutralité dans le conflit.¹⁸

En somme, il semble clair que dans la situation actuelle, avec une présence plus accrue au niveau des négociations de l'Oman, ni la communauté internationale ni les États-Unis n'ont de rôle politique à jouer. L'assistance humanitaire est néanmoins nécessaire, avec plus de vingt millions d'habitants vivant dans des conditions extrêmement difficiles depuis le début des affrontements.

Ainsi, selon Bruce Riedel, journaliste pour Al-Monitor,¹⁹ plusieurs mesures peuvent être mises en place. Tout d'abord, sortir définitivement Saleh de l'équation politique. Bien qu'il ne soit plus au pouvoir, il exerce une influence néfaste dans le conflit. Ensuite, les Hûthis doivent faire partie d'un processus de réconciliation sans être la force politique dominante. En effet, tout porte à croire qu'ils seraient incapables de faire face aux nombreux défis qui attendent le Yémen.²⁰ Il en va de même pour le président al-Hadi qui s'est avéré d'un leadership très faible. De plus, l'Iran et particulièrement l'Arabie-Saoudite doivent réduire leurs effectifs et leur soutien aux divers acteurs en conflit. Cette guerre mandataire au Yémen ne fait qu'infliger des souffrances à la population et aucun parti ne s'en trouve réellement gagnant. Enfin, un gouvernement fort au Yémen permettrait de prendre en considération les préoccupations des États-Unis quant à Al-Qaïda et Daesh, ainsi que la question des frontières avec l'Arabie-Saoudite. Pour se faire, en revanche, il faut redonner aux Yéménites le pouvoir sur leur territoire et leur avenir. C'est dans cet ordre d'idée que Riedel suggère d'accorder à Sana'a une place dans le Conseil de Coopération du Golfe.

En somme, la notion d'un seul Yémen, bien qu'unifié dans les années 90, est loin de faire l'unanimité. Le pays a d'innombrables défis auxquels il devra faire face, autant à court qu'à long terme. Nous ne sommes pas à même d'espérer qu'un règlement de conflit puisse se faire dans un avenir rapproché. Par contre, l'internationalisation du conflit n'aide en rien les perspectives futures du Yémen et de ce fait, la réponse à la question initiale quant à savoir si les occidentaux ont une place dans le conflit au Yémen, est négative, sauf au niveau de l'assistance humanitaire afin, à tout le moins, d'apaiser les souffrances de la population en pleine crise humanitaire, en attendant le règlement de la situation, par et pour les Yéménites. 🗖

Alexandra Dufour, diplômée Summa Cum Laude de l'Université d'Ottawa en Conflits et droits humains, a depuis sa première année de baccalauréat concentré ses efforts sur la région du Moyen-Orient. Son cheminement scolaire et sa passion à ce sujet l'ont amenée à se pencher la situation difficile et oubliée du Yémen.

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CHEMICAL WEAPONS USE IN SYRIA AND IRAQ: IMPLICATIONS

By Dr. Jez Littlewood

he *Preamble* to the Chemical **W**eapons Convention (CWC) notes that state parties are, inter alia "determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons."¹ With well over 100 chemical weapons incidents reported since 2012 in Syria and Iraq, by both state and non-state actors, a world free of chemical weapons remains an objective rather than a reality. The history of chemical weapons reveals very limited use in conflict overall. The most widespread use remains that of World War I, where up to 100,000 deaths and over one million casualties have been ascribed to chemical weapons.² Use in the 1914-18 war resulted in the Geneva Protocol (1925) which prohibited the use of chemical and biological weapons and is now understood to represent customary international law, binding parties and non-parties alike and prohibiting the use of such weapons under any circumstances by any state. Despite this positive backdrop of a norm against poisonous weapons and a chemical disarmament treaty, the use of chemical weapons in Syria and Iraq has occurred multiple times and persists to this day. All is not well in the world of chemical disarmament.

As a consequence, a number of big questions arise from the alleged (and proven) chemical weapons use by actors in the Syrian and Iraqi theatres of conflict. First, is the norm against chemical weapons collapsing? Second, does the repeated use of chemical weapons in Syria and Iraq indicate that disarmament has failed? And third, what are the implications of continued chemical weapons use for the Canadian Armed Forces, national security, and public safety?

Chemical Weapons

Chemical weapons are primarily associated with the military programs of major states and regional powers, although recent interest and sporadic use by a range of terrorist groups is also evident over the last three decades.³ Classic chemical warfare agents such as sarin and VX (nerve agents), Hydrogen cyanide (a blood agent), Sulfur mustard (a blister agent), and Chlorine and Phosgene (choking agents) tend to be the focus of non-specialist reporting. However, international law under the CWC prohibits no specific agents, or chemicals; instead it extends the prohibition to all chemicals unless their use is intended for peaceful purposes. Moreover, the concept of 'toxicity' is the heart of the disarmament and prohibition regime. In law and practice, the use of any chemical where the intent is to exploit its toxic properties to cause death, temporary incapacitation, or permanent harm is a violation of the CWC. The only exceptions are for purposes not prohibited by the Convention: chemical defence (protective purposes), law enforcement use of riot control agents, and other legitimate uses of chemicals (industrial, agricultural, research, medical, pharmaceutical). Otherwise, the use of chemicals to cause death, incapacitation, or harm is prohibited and unequivocal. Furthermore, it is not solely the use of chemicals in this way which is banned. The prohibitions extend to their development, production, stockpiling, acquisition, retention, transfer, military preparations for their use, as well as assisting, encouraging, or inducing in any way anyone to engage in activity prohibited to a state party.⁴

Post-1945 verified uses of chemical weapons include: incidents in Yemen between 1963 and 1967; use in Vietnam by US forces, predominantly as a defoliant (for example Agent Orange) but also riot control agents against enemy forces at certain points; use by Iraq during the Iran-Iraq war (1980-88) and against its own Kurdish population in the Anfal campaign, which included the attack on Halabja; use by the Japanese cult Aum Shinrikyo in 1994 and 1995, which was the first large-scale terrorist use of chemical weapons;⁵ and more recently in the Syrian conflict by Government forces and by the Islamic State of Iraq and the Levant (ISIL) in Iraq.⁶ Although terrorist use of chemical, biological, radiological, and nuclear (CBRN) weapons has been a staple of post-Cold War threat assessments, actual use of such weapons has been limited.7

In the nineteen years since the CWC entered into force (April 1997) the Convention has in many respects been a remarkable success. Membership stands at 192 states parties, which the Organisation for the Prohibition of Chemical Weapons (OPCW) proudly notes covers 98 percent of the global population. Only the Democratic People's Republic of Korea (DPRK), Egypt, Israel, and South Sudan remain outside the legal embodiment of the normative constraint and revulsion to chemical weapons. Moreover, to date the OPCW has overseen the destruction of 93 percent of the declared stockpile (72,304 metric tonnes of chemical agent) from the eight states that have declared stockpiles: Albania, India, Iraq, Libya, the Republic of Korea, Russia, Syria, and the United States.

The world is, therefore, undoubtedly safer from chemical weapons in 2016 than it was two decades ago. But all is not well in the world of chemical disarmament. Since December 2012, repeated allegations of chemical weapons use in the Syrian conflict have been made and newer allegations have surfaced in Sudan.⁸ The latter, from Amnesty International, have yet to be investigated, but in the Syrian conflict the OPCW has been at the forefront of investigations of alleged use since early 2013.9 Since the first allegations emerged in 2012, chemical weapons use has been reported "at least 161 times through the end of last year [2015], causing 1,491 deaths."¹⁰ Incidents involving chemical weapons have continued through 2016, with an average of three reported incidents per month up to October when a marked increase occurred with IHS Conflict Monitor noting 15 incidents in October.¹¹ Both Russian and Iranian media sources also note use of chemical weapons but allege anti-Government forces and terrorists are responsible for their use.¹² The Syrian government is certainly not the sole perpetrator of chemical weapons use in the region.¹³ In many cases the perpetrators are unknown. Analysis from various sources points to a wide array of non-state groups possibly involved in sporadic and isolated chemical weapons use;¹⁴ but the two main identified perpetrators are the Syrian government and ISIL, or *Daesh* as it is now referred to by the Government of Canada.

Norm erosion

conflict The Syrian has altered perceptions about chemical weapons. As a result, the idea that the norm against chemical weapons is eroding is beginning to surface.¹⁵ While it is correct to note that the response of the international community to chemical weapons use has neither been as fast nor as effective - in terms of preventing use, confirming incidents of use, identifying perpetrators, and holding every actor involved in such use to account - as many would expect, the OPCW, the United Nations Security Council, and others have responded to chemical weapons allegations.¹⁶ The possession and use of such weapons has been continually challenged not only by states but also by non-state actors and civil society, with the allegations of use widely documented. Thus, while the norm has been ignored the response from multiple actors indicates use will not go unchallenged or be accepted as legitimate. Indeed the strenuous efforts by the Syrian regime, Russia, and Iran to blame rebels and terrorists for such attacks suggests a recognition that violation of normative constraints affect public and international opinions: hence, the need to shift blame to other actors. This suggests the norm is under pressure rather than collapsing, although there is much to be done to reinforce the norm in the coming months and years.

Does the repeated use of chemical weapons mean the CWC has failed?

No amount of positive spin or interpretation can ignore or deny that a state party to the CWC has now violated the Convention and done so without any real consequences. Moreover, given that the Syrian regime has the active political and military support of Russia and Iran, including members of the armed forces of both countries, both states may be in non-compliance with their obligation not "to assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention." Legally this may be contested; it is also unlikely to emerge as an avenue to pressure Russia or Iran to withdraw support for the Assad regime. But both states are also actively involved in protecting the Syrian regime from sanctions imposed by the OPCW and with additional measures being developed in the UN Security Council. As such, both Russia and Iran are at least complicit in Syrian chemical weapons use and therefore in non-compliance with Article I (1) (d) of the CWC and its broad in any way formulation of a prohibition on assistance.

Like the normative constraint, the Convention is thus under some pressure. The Executive Council of the OPCW has formally adopted a decision on this issue, calling for Syria and ISIL "to desist immediately"¹⁷ even though four states (Russia, China, Iran, and Sudan) voted against the resolution and a further nine abstained within the 41-member Executive Council. Yet the resolution was itself a compromise that removed the implication of sanctions against Syria.¹⁸ However, the regular reports of the OPCW to the Security Council underline ongoing problems with the process of destruction of Syrian chemical weapons production facilities, its account of its past program, and the accuracy of its declaration of chemical weapons to the OPCW in 2013. There are clear discrepancies in Syrian reporting and actual past and present activity; although these difficulties do not detract from the swift and successful removal and destruction of Syria's declared chemical weapons, which was a remarkable achievement by the OPCW and the international community.

All-in-all the CWC is not an unequivocal success, but its pre-Syria achievements and flexible and professional response to the Syrian chemical weapons stockpile are neither minor nor indicative of a



Headquarters of the Organization for the Prohibition of Chemical Weapons in the Hague. (Image credit: Szilas, Wikimedia Commons.)

disarmament regime that has failed. Rather, what is emerging is a recognition of the difficulties of treaty implementation when non-compliance it evident.¹⁹ For instance, Syria has limited access to sites, withheld documentation, failed to provide credible scientific and technical explanations for known activities or findings, questioned the evidence from international inspections, shifted blame to other actors, notably terrorist groups and other violent non-state groups opposing Assad.²⁰ The regime has been assisted by Russia and Iran in the OPCW and the United Nations, where they have also questioned the veracity of the evidence, the interpretation of the available data, and the findings of the international inspection teams through political manoeuvering and active propaganda.21

Implications for Canada and Canadian Armed Forces

The implications of chemical weapons use demonstrate that a world free of chemical weapons remains a vision rather than a reality. From a CAF perspective, the situation has three implications. First, CAF should continue to anticipate and plan for operations in a chemical environment in future deployments. Second, the ability to detect, respond, defend against, and investigate chemical incidents and allegations of chemical remains weapons of paramount importance. As a consequence, the Canadian Joint Incident Response Unit (CIJRU) is likely to be a more important resource for CAF in future missions and in support of public safety in domestic environments in coming years.

Third, the ability to investigate, detect, and confirm chemical weapons use remains at the heart of any credible response in military and diplomatic terms. This places new emphasis on Canada maintaining robust and advanced capabilities to deploy units abroad and domestically, individuals to multinational or teams such as the OCPW-UN Joint Investigation Mission (JIM), in military deployments, or to assist civil agencies within Canada. An additional implication beyond CAF is the role of intelligence in support of decisionmakers. Intelligence in all forms - technical, human, and scientific underpins the ability to determine fact from fiction and propaganda. The number of actors offering real-time or near real-time reporting or assessment of chemical incidents increases the depth and breadth of sources, but open source reporting is no substitute for rigorous all-source analysis of intelligence that governments and CAF rely upon to make informed decisions.

Finally, it is evident that collectively, Canada and other like-minded states will have to continue to shore up the normative barriers against chemical weapons, the legal prohibitions against them, and the international and national capabilities to detect, respond, and investigate chemical weapons use.

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2016 VIMY AWARD – ACCEPTANCE SPEECH BY RECIPIENT DR. JAMES BOUTILIER

Dr. James Boutilier received the CDA Institute's 2016 Vimy Award at the Vimy Award Gala Dinner on 4 November 2016. We are pleased to publish his acceptance speech.

The Right Honourable Beverly McLachlin, my and old and dear friend, General Jon Vance, Members of Parliament Karen McCrimmon and Jean Rioux, Senator Joe Day, The Honourable David Pratt, Former Chiefs of Defence Staff, Previous Vimy Award recipients, Vice Admiral Mark Norman and Commanders of Services, VAdm Denis Roleau and CDA Council, MGen Daniel Gosselin and members

of the Board of Directors of the CDA Institute, my old and dear friend, Tony Battista, distinguished guests, ladies and gentlemen.

I would be remiss, of course, if I did not also acknowledge and thank all of those great companies, large and small, that support Canadian security and defence, and the superb 'big tent' work of the Conference of Defence Associations and the supremely vital research and analysis work of its sister organization, the CDA institute – the organization responsible for this signature event.

At the outset, let me say how flattered and humbled I am to receive this prestigious

award. In accepting the Vimy Award, I join an illustrious Nelsonian "band of brothers"; I only hope that I am worthy of their trust.

CDA. (Image credit: Lauren Larmour.)

This honour would not have been possible without the support of my professional peers. Further, it would not have been possible without the patient and steadfast support of my beautiful wife, Ping, and our darling, talented and headstrong daughter, Janou. I thank them warmly and deeply on your behalf.

I have to confess that there is an element of serendipity, even mental telepathy, about receiving this award. Some time ago I was engaged in domestic archeology in my study. When I got down to the stratigraphic layer marked "CDA" I came across a copy of a handsomely crafted acceptance speech by an earlier Vimy Award winner. I have no idea who the author was but it was a fascinating document. As I read it, I found myself reflecting – fleetingly – about who might be this year's nominee. That thought came and went, evanescently, and I moved on to other things.

Eighty years ago, in 1936, Walter Allward's strikingly impressive Vimy monument was unveiled by King Edward VIII. At the time, Prime Minister Mackenzie King observed fittingly that Vimy Ridge, on which the monument stood, was "Canada's altar on European soil".





(L-R): Honorary Colonel Frederick Mannix, Vimy Award Winner 2012; General Raymond Henault (Retd), Vimy Award Winner 2007; General Paul Manson (Retd), Vimy Award Winner 2003; The Right Honourable Beverley McLachlin, Chief Justice of Canada; Dr. James Boutilier, Vimy Award Winner 2016; Major-General Daniel Gosselin (Retd), Chair of the Board, CDA Institute; General Jonathan Vance, Chief of the Defence Staff; Major-General David Fraser (Retd), Vimy Award Winner 2006; Brigadier-General W. Don Macnamara (Retd). Vimy Award Winner 2013. (Image credit: Lauren Larmour.)

The monument commemorates the victory of four Canadian divisions, led by a Canadian general, in April 1917 over German forces holding this great limestone shoal on the French plains near Arras.

Allward's work is an exercise in stark verticality, with two giant pylons reaching for the sky. Standing alone before them is Canada Bereft, the narrow, shrouded statue of a woman looking downcast. Is she mourning the thousands who died storming the summit, or is she reproaching the world for embracing the folly of war?

She gazes at a cannibalistic landscape; terrain that consumed friend and foe alike, leaving them splayed on the barbed wire like scarecrows, or drowned in the mud.

The attack took place under the umbrella of a creeping barrage orchestrated by a young British major, Alan Brooke, who would go on to become one of the greatest diarists of the Second World War.

Creeping barrages were expressions of the industrialization of destruction. Colossal amounts of explosive that shattered the land, rent the sky, and delivered indescribable death to hapless soldiers.

Near Allwards' monument are military cemeteries where many young Canadians lie. These resting grounds capture the delicate geometry of death: white on green, white on green, as the crosses lead away.

Vimy was neither an Austerlitz, nor an El Alamein. Every metre was sewn with French dead, who had been sacrificed to set the stage. They were the victims of the bankruptcy of strategic and operational thought displayed by the generals of the day.

Nonetheless, the seizure of Vimy Ridge during three bloody days in April was incontestably a victory for the Canadian divisions thrown into battle. They planned well, advanced resolutely, and overwhelmed their opponents.

Far more important was the fact that their achievement, long ago and far away, contributed to an indelible narrative; the reassuring and timely belief that Canada had come of age as a consequence of their valour.

Vimy Ridge, of course, was one of many sanguine and violent battles that marked the course of the First World War in Europe.

Another war was unfolding at sea. There, grey, salt-stained Royal Navy battle cruisers and destroyers were slowly squeezing the life out of the German economy and putting paid to vainglorious Wilhemine naval ambitions.

The First World War had witnessed a rising hegemon, Imperial Germany, challenging the existing maritime hegemon, Great Britain, at sea. The intractable dictates of geography doomed the High Seas Fleet to defeat. The contest was long, h ard - fought, unpredictable, and magisterial, but the outcome was seldom in doubt.

I would suggest, ladies and gentlemen, that we are in the midst of a new oceanic era. Not since the great age of exploration in the 16th century have oceans played such an important role in global affairs. Unprecedented levels of commerce move across the world's oceans, great



(L-R): The Right Honourable Beverley McLachlin, Chief Justice of Canada; Dr. James Boutilier, Vimy Award Winner 2016; Major-General Daniel Gosselin
(Retd), Chair of the Board, CDA Institute; General Jonathan Vance, Chief of the Defence Staff. (Image credit: Lauren Larmour.)

power politics are being played out at sea, and oceans are central to the health of the global organism in an age of dramatic climate change. Moreover, we are in the process, for the first time in human history, of acquiring a new Ocean – the Arctic.

Three inter-related phenomena marked the end of the 20 century: the end of the Cold War; the meteoric rise of China; and China's discovery of seapower. Traditionally, the Chinese looked to the interior of Eurasia as a source of existential threats. The sea, if anything, was seen as a barrier. The rapid growth of the Chinese economy in the last two decades of the century changed all that. The Chinese came to realize that their continued well-being was critically dependent on the predictable and untrammeled movement of maritime commerce. Still further, Beijing came to appreciate - as never before - the flexibility, the mobility, and the authority inherent in far-ranging seapower.

This realization constituted a cerebral revolution of the most profound sort. Within half a lifetime, the Chinese became unquestioned converts to the tenets of Alfred Mahan. At its simplest, Mahan, the great American prophet of seapower in the 1890s, argued that great nations have great navies. Furthermore, one could add a 20th-century gloss: that great navies have aircraft carriers.

What does all this mean in terms of the architecture of global naval power? It means that, like Wilhemine Germany, China is a rising hegemon bent on contesting dominance in the Indo-Pacific region from the existing hegemon, the United States, which has exercised worldwide power over the past 70 years by way of the United States Navy.

Like Germany, on the eve of the First World War, China is employing a classic weaker-navy strategy of sea denial. Its aim is to hold American seapower at bay; all this at a time when the old, frontline navies are declining in size at an alarming rate.

When I was a young navigating officer, attached to the Royal Navy Reserve in the early 1960s, the Royal Navy had 152 frigates and destroyers. It now has 19. Thirty years ago, during the presidency of Ronald Reagan, the United States Navy aspired to have a 600-ship fleet. Currently, the USN, despite oft-quoted plans for a larger fleet, has only about 275 vessels. Thus, the most powerful navy in the world has been cut in two, numerically, as a result of budgetary disarmament.

At the same time, the awkwardly-named People's Liberation Army Navy has grown in size and sophistication. Direct numerical comparisons between the USN and the PLAN have the making of a cartoon. Yes, the Chinese have surpassed the Americans in the numbers of hulls, but they have only one aircraft carrier and they lack the enormous experiential background of American carrier commanders.

In short, the debate among navalists (and some would argue that the Indo-Pacific region is in the midst of a naval arms race marked by a deeply disturbing proliferation of submarines) reminds one of the "We want eight and we won't wait" debate that took place on the eve of the First World War when, urged on by the First Sea Lord, Jacky Fisher, the popular press in England stimulated a nationwide campaign for more dreadnaughts.

We now know that the naval building program in Germany would have been a formula for bankruptcy if it had been pursued much longer, but China's industrial capacity is far greater, and we should be suitably sobered – despite the caveats cited – by the breathtaking speed with which the Chinese are constructing not only 60 frigates but their first indigenous carrier. Indeed within the professional lives of those present this evening, China has created fleet of over 330 surface combatants characterized by increasing levels of lethality.

We should also be sobered by the way in which President Xi has taken a page out of President Putin's Crimean playbook. It was the Hungarian dictator, Rakosi, who described the communist takeover of Eastern Europe in the mid 1940s, as "salami tactics." These are the same tactics that Xi has employed; carefully calibrating the Chinese consolidation of power in the South China Sea. The levels of provocation involved are such that they are just below the point where they might trigger a major response. Both Putin and Xi have correctly assessed the degree of passivity prevailing in the West, an assessment reminiscent of Hitler's calculations in the 1930s.

Europe was criss-crossed by interlocking alliances and ententes on the eve of the First World War, and contemporary Asia has begun to exhibit the makings of similar battle lines, as more and more Asian nations, deeply disturbed by China's assertive maritime policies in the East and South China Seas and Beijing's failure to honour international law, are aligning themselves with the United States.

Over the last few minutes, we have come a long way from the horrors of trench warfare in France a century ago. But the planning, courage, and execution that ensured the Canadian victory in April 1917 remain emblematic. It is commonplace today to say that we live in a complex, confusing, and challenging world when it comes to national security. This is certainly true, but when the Islamic State or the Crimea are long forgotten, a global contest at sea will still be in play. While the similarities to the period prior to 1914 are tantalizing intellectually, they should not blind us to an array of different outcomes. Whatever the case, we need to pay close attention to those days in April 1917. We should not delude ourselves, we should plan, and we should operate from a position of strength. Perhaps those are the legacies of our courageous forefathers.

Once again, I thank each and every one of you for vesting your faith in me, and for bestowing this great honour upon me. Merci et bon soir!

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EVALUATING CHINA AS A GREAT POWER: THE PARADOX OF THE 'RESPONSIBLE POWER' NARRATIVE

by Adam MacDonald

The 'Assertive China' discourse has L become a dominate paradigm regarding the change in style and tone in China's foreign policy over the past decade. These narratives, while suffering from a number of shortcomings,¹ highlight the growing level of hostility and apparent non-negotiability in Beijing's diplomatic stances over 'core national interests,² a term relatively new to Chinese foreign policy and may now include territorial and maritime claims within the South China Sea. Any inclusion of these as a 'core national interest' would propel them into a small category of issues inextricably linked to 'national rejuvenation,' which as articulated by President Xi Jinping is a comprehensive strategy for China to deploy its growing power capabilities in order to reclaim its position as one of the world's leading powers after the 'Century of Humiliation.'

Despite general agreement of the broad contours of China's assertiveness, there are a number of competing explanations as to its origins and ultimate aims. Some speculate this is the beginning of a more overt revisionist challenge toward the United States and the current international order. However, whether this is a global hegemonic struggle or a more localized attempt to reconfigure geopolitical arrangements toward Beijing's advantage is uncertain. Such actions, on the other hand, may not be a well thought out and deliberate strategy, but rather an opportunistic move to secure a discrete number of narrowly defined interests

during a period of assessed weakness on the part of the United States to challenge or oppose. Beijing, therefore, may be positioning itself to obstruct regional and international norms and rules not with the aim of entirely challenging them globally but rather nullifying their applications to Chinese 'core interests.'

These investigations are informed by a number of frameworks from International Relations (IR) theory, especially structurally-informed models of power transition postulating the relationship between states as being largely a function of the distribution of power between them. The 'Thucydides Trap' - an adage referring to the Greek scholar Thucydides' assessment of the fundamental cause of the Peloponnesian War between Sparta and Athens, based on the shrinking power differential between them and the fear and uncertainty this generated - has become a popular characterization of the challenge that faces leaders in Beijing and Washington. This is especially true given the converging (albeit unequal) power resources between rising and established powers is seen as a historically routine condition usually resulting in war and conflict.3

As a result, and particularly among offensive realists, some argue the deterministic effects of power transition cannot be overcome and thus promote strategies for established states (the United States chief among them) to stunt rising powers (of which China is the most threatening). Others, including many liberal institutionalists, believe that changing power dynamics between the United States and China are unfolding in an arena in which stabilizing factors – such as nuclear deterrence, institutionalism, and complex interdependence – can mitigate great power conflict and ultimately uphold international order despite changes in the relative distribution of power.⁴

There are those, however, who argue the current power reconfigurations between China and the United States are not a classic example of power transition. While Beijing and other emerging states are climbing the ladder by most metrics of power resources - specifically military spending and economic wealth- the gap between them and Washington (and the West in general) is substantial and will remain so for decades to come. China's continued growth in power and influence, therefore, must be tempered with the fact that the United States will remain the world's only true global superpower, albeit existing in a world of more capable and powerful states which limit Washington's unrivaled superiority as compared to the past two decades.⁵

Despite the growing emergence of such debates in the public domain, policymakers seem reluctant to subscribe (at least publicly) to structural theories of power transition for explaining behaviour, predicting future actions, and prescribing America's policies with Beijing. To assure Beijing (and others) that Washington's policies are not

underpinned by such conceptualizations, successive US administrations since President Bill Clinton have employed the 'Responsible Power/ stakeholder' narrative,⁶ conditioning greater inclusion of decisionmaking authority and bestowing great power status on Beijing on its support to the international order. Adherence to the rules and norms defining the international order. however, is not the only evaluation criteria: meaningful and reliable contributions by Beijing toward global stability and prosperity is also required.

According to such an evaluation, America's acceptance of or opposition to China as a greater power is not based on the relative changes in power and influence between the two but the ways in which Beijing employs its burgeoning power assets, specifically militarily.

China's territorial and maritime disputes with many of its neighbours in the South China Sea is seen as a defining test case of whether Beijing will become a responsible stakeholder in the international order in this instance most importantly support for the United Nations Law of the Sea (UNCLOS) as one of the foundational global legal regimes- or obstruct, undermine, and challenge its existence. Beijing's persistent legal and strategic ambiguity on the extent of its claims has not inhibited the use of military and constabulary forces in patrolling these waters and reclamation projects which are changing the facts of the ground, despite the increased tensions and risks of violence with other claimants. The Permanent Court of Arbitration's July ruling - though not weighing in on the ownership of disputed islands and rocks – rejected Beijing's historicallybased claims to the entire South China Sea from a legal basis. It also declared that transforming low tide features into high tide ones (the purpose of China's reclamation work) does not confer upon them maritime zoning rights such as a territorial sea or an Exclusive Economic Zone.

Maintaining their objection to the legitimacy of the Court to rule on such matters, Beijing has nonetheless subtly shifted focus by emphasizing its claims as territorial in nature (the islands and rocks), from which maritime zones are legitimized, rather than proclaiming its ill-defined Nine-Dash Line to claim the entirety of this body of water.⁷ Even small clarifications in Beijing's legal positions, however, have been overshadowed by Beijing's strong rhetoric on its continuing reclamation work, to say nothing about its possible imposition of an Air Defence Identification Zone and augmented military dills and exercises in the region. The United States has publicly stated the way in which Beijing responds to the ruling (e.g., whether it curtails military

and reclamation projects or not) will be a litmus test as to their genuineness in being a Responsible Power which abides by international law and legal rulings.⁸

Apprehensions of the coercive capabilities deployed within the South China Sea stem from China's larger project of augmenting military power focused on anti-access and area denial (A2/AD) assets and tactics, even if Beijing eschews such terminology. These initiatives are directed toward neutralizing the influence of American forces in East Asia by being able to target them at increasingly greater distances from China's coast (though it is important to note that these efforts by and large do not include utilizing a traditional sea control force of its own to replace American sea power). Such a result could possibly erode confidence amongst regional partners and allies of Washington's defence commitments, allowing Beijing greater freedom to strong arm neighbours toward their preferred resolution of regional issues. The impact of these changing military realities on the political landscape in East Asia, however, has resulted in greater, not lesser, regional support for Washington's



Chinese missile frigate Yuncheng at a port call in Hong Kong, 2012. (Image credit: Kin Cheung/AP.)
continued presence, amongst traditional allies as well as new partners though there is an understanding that negotiation on some level with Beijing in terms of greater decision-making and status is necessary. In constructing a new regional configuration of power, however, refusal by Beijing to change its activities in the South China Sea will continue to be interpreted by many as a revisionist intent to forfeit international law and regional stability in order to undermine American power and introduce a new, Beijing-centric regional order.

The regional and global implications pertaining to an Assertive China are well covered academic terrain, but would a 'Responsible China' - one willing to contribute more to public security goods be a more palatable and less apprehensive option to the West? Simply put, if China's military power shifted away from A2/ AD technologies and tactics and towards emulating US power projection in the form of aircraft carrier battlegroups and a capability for sustained overseas operations, which would in turn be focused on global stability and security rather than its current regional fixation on altering the balance of power in East Asia, would this confer great power status and greater decision-making on Beijing as per the Responsible Power narrative?

China's military remains regionally focused on constructing forces and strategies to place American power projection at risk, specifically as it pertains to the maritime domain, thus eroding Washington's long-standing military primacy in East Asia. Over the past decade, however, there have been important changes to the structure and organization of the Chinese armed forces in preparation to deploy and operate overseas in a variety of contexts. Unlike its confrontational tactics and posture in East Asia, however, China's military deployments globally are by and large in support of United Nations Security Council (UNSC) mandated missions. These have included anti-piracy patrols in the Arabian Gulf, contributions to a

number of UN Peacekeeping Operations (PKO) and the evacuation of Chinese and foreign nationals from Yemen in 2014 during the height of its civil conflict. Despite these contributions, the growing geographic reach of the Chinese navy – including the spotting of a Chinese task force off the coast of Alaska in the fall of 2015 – have raised suspicions as to Beijing's employment of military power in these regions without stipulating the specific interests at play.

China's augmenting military footprint internationally is motivated by a number of emergent interests. These include keeping Sea Lines of Communications (SLOCS) open; protection of citizens and working travelling abroad, especially in conflict prone regions; and contributions to security missions such as PKOs for pragmatic purposes as well as to promote China's image as an engaged great power. China's growing involvement in global security dynamics has coincided with a subtle shift of its adherence to its core foreign policy principles for respect for state sovereignty and non-interference in internal affairs. This is particularly evident in the resource-rich but conflict-prone regions of Africa and the Middle East, where there are significant Chinese investments at risk from kleptocratic governments, civil wars, regional conflicts, and Western interventions. In the Middle East, as well, China is being lobbied by some of the region's main actors (e.g., Saudi Arabia, Iran) to play a greater regional role. Yet Beijing remains reluctant to be so engaged, due to the lack of global leadership experience; concerns of falling victim to foreign interventions, not least with the West's experience over the past two decades; and the suspected negative reaction from the United States of any greater and overt Chinese presence.

China's social and development plans are closely tied to its economic activities the Middle East and Africa. Given this fact, few countries should be as interested in maintaining freedom of navigation, regional stability, and the maintenance of trade and movement of peoples in these regions. However, a number of Western commentators argue China's adamant opposition to core aspects of the international order, most notably democracy promotion and human rights, detracts from regional stability. Beijing's long-held opposition to interventions is not absolutist or completely ideologically-based; they have moved towards conditional levels of support dependent on the mission (and in particularly the use of military power). But China remains opposed to any regime change measures regardless of rationales. Although such opposition draws the ire of Western powers, particularly due to Beijing's veto power at the UN Security Council, whether the liberal internationalist agenda fixated on such norms has assisted or undermined the international order is debatable. One only needs to look at US foreign policy over the past two decades, which resulted in questionable regime change campaigns in Iraq and Libya and a weakening of international rules (like UN Security Council approval) meant to authorize military interventions. The expansion, in particular, of the UN-sanctioned nofly zone in Libya into a regime change campaign has soured intervention discussions at the UN with China. Indeed, both China and Russia have been reluctant to support UN Security Council resolutions pertaining to the Syrian civil war without assurances that Assad's regime would not be targeted.

China's growing participation in global security dynamics, also, is occurring at a time when there is deep resentment from a large portion of the American public regarding the leadership roles, security burdens, and trade and political arrangements which define their superpower position in the international system. In particular, the newly elected US President Donald Trump had run a populist campaign based in part on the notion that America is overcommitted globally. As such, he has gone so far as to suggest a rethinking of NATO commitments to collective defence,

pulling soldiers out of East Asia, renegotiating virtually all trade deals, and defaulting on the national debt.

Leaving aside the anxieties of allies and major partners arising from this jumble of ideas, it appears Americans are looking for partners to shoulder greater burdens and thus a more active China globally would perhaps be a positive development in this respect. Is the United States, however, really willing to allow Beijing greater decision-making over security matters? To answer this question, one needs to keep in mind China's distinct differences from the West in terms of its regime and culture; its prioritization of different norms than those underpinning the West's more liberal agenda; and its continued efforts to develop a military with global range and capabilities which undermines and complicates Western capabilities.

The Responsible Power narrative is important counter-discourse to an deterministic predictions and the prescriptions of structural theories of power transitions. That said, attempts to construct and employ an objective evaluation ascertaining Chinese support or opposition of the international order are complicated by the fact that global politics are changing. As international decision-making slowly moves away from a system of near total Western dominance toward a new and uncertain configuration of relations between and within emerging and established powers, there is a growing contestation of the prioritizations and relationships between a diverse set of norms and rules underpinning the current order.9

The paradox Washington confronts is that encouraging a more security minded and engaged Beijing in such an environment will mean it will have to accept a larger Chinese military with power projection capabilities and the ability to influence global dynamics during this period of change. Beijing's grand strategy of Peaceful Rise/Development, however,

appears pillared on an appreciation that the unprecedented nature of the international order it confronts has obviated the success of warlike rises defining other aspirants to great power status.¹⁰ Such a strategy does not entail Beijing's complete and unwavering support to all aspects of the current global order, nor an unwillingness to test the resolve of the system's principal architects to cede power and influence, but there are few indications Beijing is aggressively challenging (militarily or otherwise) the international order and advocating the construction of an entirely new geopolitical alternative. Instead, like many emerging powers, the stability of the current order has facilitated and continues to promote and enable their rise in power and prosperity,¹¹ but Beijing does appear determined to carve out greater freedom of action to achieve their core interests in spite of and despite the consequences to the international rules and norms they are trying to circumvent.

The current state of international stability will require both Beijing and Washington to make important adjustments, not only to their foreign policy principles, but also to perceptions and evaluations of one another in terms of global security roles and responsibilities. For Beijing, there must be an appreciation of the burdens Washington has fulfilled to maintain an open and stable order which has enabled China's rise, as well as a growing requirement to contribute to certain obligations which will necessitate an easing of the non-negotiability of some of their core interests. For Washington, the Responsible Power criteria must take into consideration that the international order with which such evaluations are being judged is in a period of change. China, as well, despite its impressive rise in power and influence possess only onefifth the GDP per capita of the United States and is still addressing a myriad of domestic challenges - widespread local pollution affecting air and water quality, an ongoing social security crisis with an aging population, immense strains on urban development and over 100 million people still in abject poverty – which many in the West, including political leaders, could hardly comprehend. In negotiating and ensuring Beijing, therefore, contributes its fair share to global security goods, the West must be mindful that Beijing's foreign policy principles, practices and willingness to support international agendas is heavily conditioned by the regime's obsession with domestic stability.¹²

Determinations of Chinese support or opposition cannot be arbitrarily linked with Western foreign policy preferences on a case by case basis. As Washington, therefore, looks to shape the choices this rising power makes, particularly the use of military power away from regional revisionism and towards maintenance of global stability, it will need to shift its focus and objective. In particular, the United States will have to reinvigorate its commitment to the international order by acknowledging the need for institutional and relational reconfigurations amongst established and emerging powers, while tempering and challenging narratives of exceptionalism and 'exemptionalism'¹³ which justify the circumscribing of global rules and mechanisms either by themselves as well as others. The logical antithesis of a Responsible China is not necessary a revisionist one with ultimate aims of challenging US leadership and authority globally, but possibly a Reluctant China which remains focused on achieving core national interests at the expense of providing public goods and adherence to global legal regimes (such as UNCLOS), with detrimental effects on global stability and prosperity.

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SUPPORTING AN INFORMED PUBLIC DEBATE: SEVEN IMPORTANT FACTS TO KNOW ABOUT MILITARY REQUIREMENTS PLANNING

by Colonel Charles Davies (Reťd)

nformed public debate of issues is a L cornerstone of any liberal democracy. The real challenge is how to ensure that it is indeed "informed" and not overly clouded by poorly founded opinion. Recent public discourse around military equipment projects such as the Canadian Surface Combatant and Future Fighter Capability (among others) have again thrown this problem into relief, with some commentary resting on evident gaps in the authors' understanding of some important realities affecting the definition of defence equipment requirements. These gaps can obstruct rational public debate.

The purpose of this article is to try to begin to fill in some of them, with a view to encouraging a more informed national conversation on these important issues. It does not seek to sway opinions for or against any specific equipment solution, but rather offers insights into some of the realities of the environment within which defence capability requirements development occurs.

Context

Canadian governments receive a lot of advice from many external sources on the defence needs of the nation. That advice reflects various levels of thought and analysis, from uninformed opinion to well researched, peer-reviewed academic studies, with the latter being distinctly in the minority. On the other hand, the advice they receive from officials inside the key departments concerned: National Defence; Public Services and Procurement Canada; Innovation, Science and Economic Development Canada; and others has to be developed under relatively high and consistent standards of rigour, discipline, and oversight.

The context within which officials prepare their advice to government is complex, and many factors and issues shape the process and its outcomes. A full discussion is not possible here, so this article will focus more narrowly on providing factual insights into seven issues that commonly arise in the public debate about Statements of Operational Requirement produced by National Defence.¹

The Facts

1. There is an inherent institutional bias in National Defence towards the "good enough" over the "best." This is because of the natural dynamics of living within a fixed and limited budget where it is a constant struggle to make the available funds cover the very wide array of defence capabilities successive governments have directed the department to maintain.² While individual project sponsors can,

and indeed are expected to, advocate for as much money as possible to enable their programs to deliver the best possible capabilities for the Canadian Armed Forces, this ambition is actively tempered by mechanisms at the corporate level, substantially enhanced over the past decade, that provide objective and quite hard-eyed scrutiny and will, as needed, direct a "watering down of the wine." This leads directly to the second fact.

2. It is very difficult for anyone to "wire" a Statement of Operational Requirement in favour of a particular solution. Since 2005 the Vice-Chief of the Defence Staff, who among other things is the senior resource manager and capability integrator for National Defence, has been actively building and maturing the Department's Capability Based Planning System.³ This rests on a diverse range of standard force planning scenarios - developed by academic, scientific, policy and military experts that are used to support objective analysis of defence capability requirements (e.g., is Capability A of greater value across a range of mission scenarios than Capability B?). A growing suite of advanced Operations Research tools and sophisticated simulation environments are further applied to ensure rigour and discipline in the process of validating requirements, particularly for major platforms.

The process is overseen by a senior level Defence Capability Board, which operates within a zero-sum environment where any money spent on more than the minimum need in one area means less money to meet minimum needs in another. In 2014 the former government added a further level of scrutiny for larger projects in the form of an external review panel,⁴ which has been retained by the present administration. A Cabinet working group on Defence Procurement was also created and has since evolved into a full Cabinet Committee of eight ministers.

Getting a "wired" Statement of Operational Requirement through these processes, controls, and oversight mechanisms would be difficult. If anything, the risks are somewhat greater on the downside of the equation: that the process will produce an outcome that "waters down the wine" too much and delivers a solution that proves in certain operations to fall short of "good enough."

3. Requirements have to be developed in communication with industry. There are periodic calls for a firewall between defence capability planners and industry, but the hard lesson dating back to at least the Avro Arrow program is that requirements developed in isolation from industry – that is, in the absence of a very good understanding of what capabilities can actually be delivered by them – inevitably lead to failed, or at least very troubled and costly, acquisition programs. There must be conversations with industry.

These have to be properly managed to ensure that there is no resulting bias in the procurement process, but it is absolutely essential that the drafters of Statements of Operational Requirement have a clear knowledge of the products available in the market, or coming into the market, and a good idea of their costs. For requirements that can't be met by readily available products, they need good information on the complexity, difficulty, and costs likely to be involved in developing a new or adapted solution, how it can be expected to perform, and the ability of suppliers to reliably deliver it.

4. Requirements have to be looked at from a whole-life perspective. Unlike many commercial products, major defence systems can have service lives intended to extend out three or four decades or more. These systems have to be effective over their full planned operating lives, and Canadian capability managers especially have to be prepared to see them continue operating effectively beyond that. Systems that may be perfectly adequate for perhaps the next ten or twenty years, but which are likely to become obsolete well before the end of a planned 40-year life span, are not good investments.

Technicians reinstall the blades of a CH-146 Griffon helicopter on November 19, 2013. (Image credit:Master Corporal Marc-André Gaudreault, RCAF.)



Some platforms can be designed to be cost-effectively modernized, either at mid-life or on an ongoing basis, and kept combat capable over a long life. Others cannot, and in these cases the consequences of buying an already very mature system to meet a thirty- or forty-year requirement can be significant. A Matthew Fisher Postmedia column from June 2016⁵ and a recent *CDA Institute Analysis*⁶ contain good discussions of this subject as it applies to Canada's fighter capability, but the principle is equally valid for any advanced combat system.

5. Off-the-shelf equipment may or may not provide the most cost-effective solution. Buying mature off-the-shelf designs does have the advantage of providing reasonable certainty about the cost and performance of a system. However, it also forces the purchaser to accept the product as-is, whether it meets all aspects of the requirement or not. If modifications are needed to fill critical performance gaps, the procurement is no longer off-the-shelf and becomes more of a development program – with the attendant cost, schedule, and technology risks.

Restricting procurements to off-theshelf solutions could also, over time, progressively freeze the Canadian Armed Forces out of operationally important leading-edge military capabilities. Of perhaps equal or greater concern to governments, it may also freeze the nation's research organizations and defence industries out of key leadingedge technology development and exploitation. While under the Industrial and Technological Benefits Policy⁷ Canada can and does demand "highvalue" offset investments from major procurements, not all "high value" offsets are created equal. The vendor of a mature product can only offer benefits within the scope of the programs and technologies they currently have. If these do not happen to include significant new leading-edge technology development, they cannot offer access.

Finally, off-the-shelf products may actually be more expensive to own and operate. A major thrust of many military equipment development projects is designing new systems to be much more efficient to operate and easier to support and maintain than their predecessors. The up-front development costs are typically small compared to the other lifetime costs of ownership, so even a project that has substantial early development difficulties and cost overruns may ultimately deliver a cheaper solution when full-life costs are considered.

The point here is that while off-the-shelf purchasing is entirely appropriate for the vast majority of Canadian defence equipment acquisitions, there will be requirements that may be more costeffectively met, and deliver better national outcomes, through a development program. Each case needs to be looked at objectively on its own merits.

6. Requirements planning is a complex merger of art and science. A multitude of considerations go into the analysis of capability requirements. A major one is of course affordability, not only the acquisition cost but also the wholelife cost of ownership and operation. A second important question is what is available in the market and how closely those existing products meet the Canadian Armed Forces' needs: operational performance in a broad range of climatic and physical conditions; interoperability with existing Canadian and allied systems; maintainability; supportability; and so on. Various additional considerations can also come into play, including government policy direction, domestic industrial interests, and many others.

It is rare to find a single product that optimally meets every aspect of a complex requirement, so trade-offs and compromises are an integral part of the decision process and this can be a source of debate both inside and outside government. Unless an individual has been deeply involved in the analysis, the rationale behind the resulting recommendations (and the perhaps difficult compromises embedded therein) may not be readily apparent to them. This is not to suggest that the resulting recommendations should be immune from criticism, but critics do need to acknowledge that many factors will have gone into their development and they may not have full insight into all of them.

7. Interoperability is a critical requirement for Canada. NATO defines interoperability as "the ability for Allies to act together coherently, effectively and efficiently to achieve tactical, operational and strategic objectives."⁸ That sounds simple, but in fact the concept includes a wide spectrum of conditions ranging from the ability to simply understand and cooperate with each other to the ability to seamlessly function as an integrated team.

At the low end of the spectrum, a multinational force can be said to be interoperable if the various contingents can communicate and work to a common plan – one contingent perhaps doing one task and another doing a different one. They may collaborate in some support functions, such as troop feeding and provision of fuel, but not necessarily others such as ammunition and spare parts resupply where national equipment types or quality standards may be different. This level of interoperability works adequately in lower risk, lower threat missions but less so in others.

At the high end of the scale, interoperable forces create common understanding and intent by seamlessly weaving data, information and knowledge together within a highly interconnected collaboration environment; closely integrate their actions; mutually support each other; and know and trust each other as competent, reliable partners. They do not necessarily have identical equipment, but their systems have comparable and often complementing capabilities, can be mutually supported with relative ease, and are designed for seamless exchange of data to maintain a real-time Common Operating Picture across the force. The higher the threat level in the mission, or the greater the consequences of failure, the more important it is to be closer to this high level of interoperability.

Given the small size of the Canadian Armed Forces and the very large land, maritime, and air regions they must reliably cover in cooperation with our US neighbours, it is operationally necessary for certain of Canada's military capabilities to be interoperable with US and some other key allies and partners at the higher end of the scale. Examples include capabilities providing surveillance and protection of North American maritime (surface and subsurface) and air approaches. A similarly high level of interoperability should be maintained for any forces we may choose to assign to operations under NATO command as this is the direction in which the Alliance is evolving.

Conclusion

A vigorous public debate about Canada's defence capability requirements is an important contribution to our democracy, especially now with a major recapitalization effort and a defence policy review underway. It is important, however, that serious contributions to this debate reflect a reasonable understanding of the context within which the government will be making decisions, including key factors influencing how departmental officials develop the advice they provide to ministers. Only with such an understanding will alternative views offered by observers and critics rest on credible foundations.

The seven points discussed above are not intended to bolster the case for or against any particular equipment solution. Rather, they are intended to help fill some of the more evident gaps in understanding, in some quarters, of key realities affecting the development of Statements of Operational Requirements by National Defence – gaps that can hinder or even obstruct an informed public debate. The insights offered here don't cover the complete business of requirements planning, but only a few selected points. Even so, it is hoped that they will make some contribution towards a better informed public discourse.

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Independent and Informed

AUSTRALIA AND CANADA – DIFFERENT BOATS FOR DIFFERENT FOLKS

by Dr. Andrew Davies and Christopher Cowan

If a country's force development mechanisms are doing their job, the military force structure and posture should accurately reflect the nation's assessment of its security circumstances. In this paper we look at the Royal Australian and Canadian navies, and discuss their current and future force structures in terms of their suitability for the current and future geopolitical environment.

The approaches of Australia and Canada to their respective naval forces makes for an interesting comparative study because the two Commonwealth nations are of similar sizes and demographics, while being situated in very different theatres. The resulting naval force structures especially those planned for the future - reveal quite different approaches to managing maritime security. Canada has long been able to rely on both explicit and implicit American security guarantees bestowed upon it by contiguous geography. Australia, while also an American ally, feels more exposed, and worries more about it strategic circumstances. Simply put, the rise of China matters less on the eastern side of the Pacific.

Australia's strategic environment and its navy

The force structure of the Royal Australian Navy (RAN) reflects Australia's geographic and geostrategic circumstances, as well as its military history. Australia has a continent to defend and must surveil and provide maritime search and rescue services over more than 10 percent of the Earth's surface. It is the most prosperous and technologically sophisticated nation in its immediate region. Many of its near neighbours have significant economic and social challenges, as well as being frequent victims of natural disasters. As a result, Australia is the natural leader of regional High Availability Disaster Recovery (HADR), stabilization, and peacekeeping missions, as was the case in Fiji, Indonesia, Timor Leste and the Solomon Islands over the past decade.

Australia is dependent on sea lines of communication for both critical imports (especially refined fuel) and for export income. It sits at the confluence of busy shipping routes through the Indian Ocean and up into Southeast Asia, where great power competition is heating up between China and the United States, its allies, and partners. Australia has always relied on support from a major power to ensure its security - first the UK and today the US. With American primacy being increasingly challenged, there is growing pressure on US allies to step up and invest more in their own capabilities. Keeping the US engaged in the western Pacific is an important part of Australia's strategic thinking, and being a more capable ally is consistent with that.

Australia has a population of only 24 million from which to raise the resources to meet that array of challenges, and the RAN's fleet must be able to provide

capability across all of the tasks that flow from them. Not surprisingly, the result is a fleet that is large for the population that supports it – reflecting the importance of the sea to the nation's wellbeing – but which consists of a number of boutique sub-fleets. Table 1 is drawn from a recent survey of RAN capability¹ and shows the current RAN order of battle.

While we see a substantial number of frigates - increasingly the backbone of all but the largest navies - in the force, there are substantial investments in other areas. The two 27,500 tonne Canberraclass LHDs (Landing Helicopter Docks) are the largest vessels the RAN has ever operated. The newly-delivered LHDs, with their ability to deliver personnel and materiel 'across the beach,' have obvious applicability in Australia's near region and have already been called upon for humanitarian operations. If Australia is called upon to perform regional stabilization and peacekeeping missions - as is likely - the capacity of those vessels to deploy, support, and resupply embarked forces will be invaluable.

At the top end of war fighting capability, Australia is looking out at an increasingly well-armed region and nervously watching the three Aegis-equipped Hobart class air warfare destroyers which are significantly larger than either of the frigate classes, and represent a step up in surface combatant capability. There are plans to replace the eight 3,600 tonne Anzac-class FFH (Frigate Helicopter) ships with nine larger and more capable

Current vessel type(s)
FFG: Four Adelaide (Perry)-class guided missile frigates
FFH: Eight Anzac-class frigates
DDG: Three Hobart-class guided missile destroyers (delivery from 2017)
Six Collins-class SSG
24 MII-60R Seahawk (in process of delivery)
MRH-90 Taipan utility helicopters
LHD: Two Canberra-class amphibious assault ships
LSD: HMAS Choules, landing ship
13 Armidale-class patrol boats (to be replaced by up to 20 offshore patrol vessels from 2020)
AO: HMAS Sirius, 46,000 tonne Auxiliary Tanker
AOR: HMAS Success, 17,900 tonne Replenishment Tanker
Six Huon-class coastal minehunters (two in reserve)
Two clearance diving teams
Two Leeuwin-class Hydrographic survey vessels

Table 1: Major force elements of the Royal Australian Navy

'Future Frigates.'² The type is yet to be determined, but all the candidates are in the 6,000+ tonne range, and the total cost of the project will be over A\$30 billion. There is a high degree of interoperability between Australian and American naval forces, aided by commonality of combat helicopter types and the introduction of the Aegis combat system in the Hobartclass.

The story is similar underwater. The six indigenously-built Collins-class submarines represent a substantial investment in warfighting capability, and there is a strong emphasis on interoperability with the USN. The Collins boats have a modified version of the AN/BYG-1 system found in American submarines, and their major anti-surface warfare (ASuW) weapon is the Mk 48 CBASS heavyweight torpedo, which was the result of an Australian– American collaborative development effort. Over the next few decades the 3,100 tonne Collins boats will be progressively replaced and enlarged to 12 by a future submarine to be designed by the French DCNS firm. The concept design is termed the Shortfin Barracuda – a conventional submarine based on the design principles of the Barracudaclass SSN.³ At an estimated 4,500 tonnes, these will be the largest conventional submarines in the world. The price tag is commensurate; current estimates are a total cost in excess of A\$50 billion.

The minor vessel fleet is also growing in size and unit capability. The 13 300 tonne Armidale-class patrol boats are to be replaced by 20 offshore patrol vessels of up to 2,000 tonnes each. While that is likely to increase the cost of the fleet substantially, it will also mean that the RAN will have better sea keeping in high sea states (which has taken its toll on the Armidale's availability) and much better endurance, which is crucial for persistent surveillance and response over a wide area.

Canada's strategic environment and its navy

As is the case for Australia, Canada's geography, geostrategic situation, and military history all influence the force structure of the Royal Canadian Navy (RCN). Canada is the world's second largest country by area and has the world's longest coastline, much of it in the Arctic. Canada, like Australia, is therefore responsible for defending and providing search and rescue services over a vast area. Accomplishing these tasks with such geography can be a tall order, but Canada's security situation is improved greatly by the fact that it is contiguous with the US.

Canada's relationship with the US is its most important, both economically and strategically. Canada and the US have the largest

bilateral trade relationship in the world, which means Canada is less dependent on seaborne trade than countries such as Australia. Canada's contiguity with the US also insulates it from geopolitical shifts in other regions of the world, and grants it an implicit American security guarantee. While Canada and the US are bound to defend each other through their membership in NATO, their geographic proximity means that the US would have an inherent interest in preventing foreign interference in Canada even in the absence of any formal treaty commitments. Washington expects Canada to do its share, but as the more capable partner, the US takes the lead in continental defence.

Not having to worry much about defending North America proper allows Canada to focus on multilateral

Role	Current vessel type(s)
	FFH: Twelve Halifax-class frigates
Surface Combatants	DDG: One Iroquois-class destroyer
Submarines	Four Victoria-class SSK
	27 CH-124 Sea King
Embarked Helicopters	
	Six CH-148 Cyclone (in process of delivery)
	12 Kingston-class Maritime Coastal Defence Vessels
Patrol Boats	Six Harry DeWolf-class Arctic Offshore Patrol Ships (to be delivered from 2017)
Afloat Support	One at-sea replenishment vessel, the <i>Almirante Montt</i> , leased from the Chilean Navy
	One at-sea replenishment vessel, the Cantabria, leased from the Spanish
	Navy
	One interim supply ship (to be completed in 2017)
	All to be replaced by two Queenston-class auxiliary vessels (delivered from 2020)

Table 2. Major force elements of the Royal Canadian Navy

international security operations (through either the UN or NATO) that seek to maintain the US-led global order. Threats to the global order are threats to Canada's overall security, although Canada tends to focus on threats to Europe due to historical ties and its membership in NATO. In this regard, Russia's revisionist actions in Eastern Europe, as well as its increased maritime activity in the Arctic and Atlantic, are of primary concern for Canada.

Interoperability with the American military and other NATO allies is therefore a key consideration for Canada when structuring its armed forces. Knowing that the US will underwrite Canadian security has allowed the RCN to specialize its force structure to exploit economies of scale and most effectively add value to US-Canadian and NATO operations. That means that the RCN is not nearly as 'balanced' in terms of force structure as the RAN, but that's understandable given the very different geostrategic circumstances of two countries. Table 2 shows the current RCN order of battle.⁴

The core of the RCN's warfighting capability is its fleet of 12 Halifaxclass frigates, which specialize in antisubmarine warfare (ASW) operations. The large number of frigates can be traced to the RCN's taking on of the ASW role as one of its primary tasks during the Cold War, aiding the US Navy and other NATO navies in detecting and tracking Soviet submarines in the Atlantic Ocean. These vessels are currently receiving upgrades to their combat systems that will allow for better interoperability with allied vessels.⁵ Supplementing the frigates is the RCN's sole remaining Iroquoisclass destroyer. Originally built in the 1970s, the four Iroquoisclass destroyers first served as ASW platforms before being converted to perform air defence and command and control duties in the 1980s. Three of the four have since reached the end of their operational lives and have been retired, with the forth expected to be paid off in 2017. Both the Iroquois-class and Halifax-class are set to be replaced in the mid-2020s by up to 15 Canadian Surface Combatants (CSC), at an estimated cost of around C\$40 billion.⁶ The exact type and cost of the CSC is still to be determined, but the program is expected to deliver ASW and anti-air variants of a single platform, likely a large frigate, to replace the capabilities of the RCN's two current surface combatants.

The continued importance of ASW and interoperability in RCN force structure is

also evident in Canada's relatively small number of submarines. The RCN currently operates four Britishbuilt Victoria-class submarines, each displacing around 2,400 tonnes, for maritime surveillance and traditional warfighting operations. As quiet dieselelectric submarines, the Victoria-class serve as aggressors in NATO ASW exercises, allowing the alliance to hone its ASW capabilities. While there are no plans to replace these submarines in the near future, the subs are currently awaiting a government decision on a multi-billion dollar life extension to take them well into the 2020s.⁷

Due to the recent retirement of the fleet's two Protecteur-class auxiliary oiler replenishment vessels, the RCN current at-sea replenishment and sea lift



HMAS Canberra in Sydney. (Image credit: Australian Royal Navy)

capability is reliant on leased vessels and a converted cargo ship.⁸ This is slated to change in the early 2020s when the RCN is set to receive two Queenston-class Joint Support Ships (JSS). These ships are based on the Berlin-class vessels used by the German Navy, and the project is estimated to cost around C\$4.5 billion for development and sustainment. The addition of these vessels will greatly in aid the RCN in its ability to deploy ships on long missions and contribute to supplying multilateral naval task forces.

The remainder of the RCN's fleet consists of smaller vessels that perform maritime surveillance, search and rescue, and constabulary duties. The bulk of this capability comes from 12 970 tonne Kingston-class Maritime Coastal Defence Vessels. The Kingston-class vessels are extremely valuable and are able to quickly transition from non-military operations (like search and rescue) to military operations (like minesweeping) when needed. The RCN's maritime patrol capability will be buttressed in the near future with the addition of six Harry DeWolf-class Arctic Offshore Patrol Ships (AOPSs). These vessels will each displace around 6,440 tonnes and will be ice capable, making them ideal for conducting maritime domain awareness operations in the Canadian Arctic.

Conclusion

With major procurement programs for destroyers, frigates, patrol vessels, and submarines concurrently underway at various levels of maturity, Australia is making a huge investment in its naval capability. Over the next 30 years, it will spend over A\$100 billion increasing both the size of its fleet and the unit capability of the ships that comprise it. But it has little option, given the external pressures it is facing, which are only likely to grow with time. Australia has to simultaneously be self-sufficient in being able to police a vast area and to be able to support its less capable regional neighbours in a range of difficult circumstances.

As well, Australia has a strategic imperative to provide the maximum incentive for the United States to remain actively engaged in the Asia-Pacific region. With Washington facing an increasing assertive and capable China across the Pacific, and with little prospect of a big boost in SU defence spending, the expectation will be that its partners will step up. For the US, the ability to command the sea in Asian waters is optional. After experiencing its security guarantor, in the form of the Royal Navy, finding that it had higher priorities elsewhere in 1942, Australia is well aware that a major power ally – no matter how close - will have a more intense interest closer to home than it does half a world away.

Canada, however, faces a different set

of challenges, which are reflected in the RCN's ongoing procurement programs. The overall fleet size will increase slightly as the AOPVs come online, but only if all 16 of the RCN's frigates and destroyers are replaced one for one by CSCs. Once bolstered by the arrival of the AOPSs, the RCN's coastal patrol and maritime surveillance capabilities will be more than adequate for Canada's needs, so no further increase in fleet size would likely be needed.

Despite having a larger economy, Canada spends less on defence than Australia,⁹ and budgetary pressures will be keenly felt as the RCN develops its proposals for government. Unlike Australia, Canada is feeling little direct external pressure on its security situation (except to the north) and does not see a requirement to significantly increase the amount it spends, despite a need to recapitalize its armed forces. For example, there seems to be little appetite within the Canadian polity for a replacement for the Victoria-class submarines or to develop an amphibious capability, at a time when Australia has greatly boosted its amphibious fleet and is intending to double the size of its submarine arm. As a result, the RCN's force structure is likely to continue to be surface combatant centric.

Canada's more general interest in preserving the US-led global order is best accomplished by continuing to participate in multilateral operations with its NATO allies or via the UN. Increasing Russian submarine activity in the Atlantic and Arctic is a genuine concern, but it is also one that Canada has faced (and structured the RCN around) before. Having the majority of the new CSCs focus on ASW operations (and be interoperable with NATO allies) is the most effective way, from both a capability and cost perspective, in which Canada could contribute to maintaining the current order. Finding a suitable replacement for the Victoria-class and expanding the submarine fleet would be another way, but that proposition faces numerous cost and personnel hurdles. Overall, the RCN's current slate of procurement programs may be 'more of the same' but it's also appropriate given Canada's geostrategic situation.

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SPACE AND THE THIRD OFFSET IN THE POST-POST-COLD WAR PERIOD – LESSONS FOR CANADA AND AUSTRALIA

by Dr. Malcolm Davis

ast year my colleague Andrew Davies Lanalysed Australia's and Canada's defence policies and looked at prospects for force modernization and operational funding for the two militaries in the years ahead.¹ Written just before the Canadian federal election, which the Liberal Party led by Justin Trudeau won decisively in October 2015, Davies' analysis highlights diversionary paths being taken by the two countries. On the one hand, the 2016 Defence White Paper (DWP-16) released by Australia in February 2016 suggests that stated defence spending will increase to 2 percent of GDP by FY-2023-24.² In contrast, the current Canadian defence document, the Canada First Defence Strategy (CFDS), maintains flat defence spending. As Davies notes, given underlying inflation, this will see a "rundown in defence capability again, albeit a slower one than seen in the 1990s and early 2000s."

The outcome of Canada's approach is a 'steady decline of buying power' for the Canadian Armed Forces (CAF). Although a budget increase has been flagged for 2017-18, with defence spending expected to rise to 3 percent, given that major recapitalisation of its frontline assets are required, notably the replacement for the CF-18 Hornet, the replacement for the CP-140 Aurora maritime patrol aircraft, and a very significant naval modernisation program, even the promised 3 percent annual increase may not be sufficient to keep the CAF effective. The Liberal Party of Justin Trudeau suggests that current National Defence spending levels, including the above planned increases, would be maintained.³ Yet this policy does not explicitly guarantee significant spending increases necessary to turn around the CAF's decline, instead making vague promises of "reinvesting in building a leaner, more agile, better equipped military," and suggesting the procurement budget for replacing the CF-18s will be reduced,⁴ with a focus on lower-priced options than the F-35. Most recently, a decision⁵ was announced that Canada would purchase an interim fleet of 18 Boeing F/A-18E/F Super Hornets,⁶ whilst pushing the F-35 decision further back. Canada will continue to participate in the Joint Strike Fighter program and will consider the F-35 as well as other aircraft in a competitive process for a future permanent fighter capability.

As for the Royal Canadian Navy, the thinking is that money saved on buying the F-35 now, and instead opting for what the public sees as a cheaper (albeit less capable) aircraft like the Super Hornet, would be reinvested in naval capability,⁷ with the aim to develop the RCN into a true blue water maritime force based around icebreakers, supply ships, arctic and offshore patrol ships, surface combatant. Of key importance will be the new Canadian Surface Combatants (CSCs), of which the RCN will acquire up to 15 by the mid-2020s to replace existing Halifax-class frigates and a sole remaining Iroquois-class destroyer. The four Victoria-class diesel-electric submarines may get a life-extension to keep them operationally viable into the 2020s.⁸

In an article appearing in this issue, Andrew Davies and Chris Cowan explore the likely development of the RCN, and compare it with significant growth the RAN. They note that Canada's more unique operational requirements allow it to role specialize to a greater degree than Australia, which must maintain an effective, balanced defence capability. Like Australia, Canada is focused on preserving the US-led global order, which they note "is best accomplished by continuing to participate in multilateral operations," either with NATO or with the United Nations. In this regard, CAF are currently undertaking military action in Iraq, alongside Australia and the United States, under Operation Impact.

The signals coming out of Canada on defence policy therefore represents a 'steady state' approach - replacing older platforms with newer platforms, at a similar number, to do similar missions. Canada's defence policy and its military strategy ought to reflect its strategic outlook, which is challenged increasingly by an assertive Russia in the Arctic, and in terms of Russia's submarine operations in the Atlantic, as well as growing and pervasive global challenges to international order. Yet, with an implicit and explicit defence guarantee from the US, Canada can afford to specialize to a greater degree than Australia, where



Two Russian Borey-class submarines. (Image credit: Russian Defense Policy.)

the "tyranny of distance" suffered by Australia from its key partner is matched by growing insecurity caused by a rising China. Canada can focus on supporting collective defence within NATO and on participation in UN-led peacekeeping tasks, as well as the essential requirements for sovereignty defence of Canadian territory.

This steady state strategic mindset is likely to be increasingly challenged because Canada's strategic outlook is becoming more challenging. The threat posed by a re-emergent Russia to NATO and within the Arctic is of primary significance, even more so than peace support tasks, humanitarian assistance, and supporting counter-terrorism. Simply put, there is no bigger task than responding to growing risks caused by Russia, which seems intent on reversing losses of territory and influence suffered by the then Soviet Union in 1991, particularly as Russian actions impinge on NATO security interests. Russia's willingness to challenge international norms of behaviour and a rules-based order represents the reality that Russia is a re-emerging revisionist power, and Canada as a NATO member has a clear responsibility towards the Alliance's collective security mission under Article V. Russia's activities in the Arctic also must be of concern for Canada, given that it, unlike the United States, has territorial disputes with Moscow above the Arctic Circle. Whereas Australia must plan against the possibility of a rising and assertive China seeking to challenge its security interests in Asia, Canada now must more directly respond to the risks posed by a re-emergent and aggressive Russia that is literally on its doorstep over the north pole, and against NATO to which Canada has significant obligations.

So could Canada shift from a 'steady state' approach to a new defence policy that allows it to significantly punch above its weight? Canada may also face increasing pressure from the new Trump administration to do more to contribute to global security and stability, or risk being labelled a free-rider in an era where it's become clear that the new Administration will not accept such an outcome. Davies and Cowan note that:

Canada's contiguity with the US also insulates it from geopolitical shifts

in other regions of the world, and grants it an implicit American security guarantee. While Canada and the US are bound to defend each other through their membership in NATO, their geographic proximity means that the US would have an inherent interest in preventing foreign interference in Canada even in the absence of any formal treaty commitments. Washington expects Canada to do its share, but as the more capable partner, the US takes the lead in continental defence.⁹

Despite this apparently comfortable situation, Canada's security outlook must consider an increasingly powerful and assertive Russia that threatens not only NATO security interests, but also asserts territorial claims in the high Arctic under the UN Convention on the Law of the Sea (UNCLOS) Commission on Limitation of the Continental Shelf. Russia claims 1.2 million square kilometres of Arctic sea shelf, which includes some of the world's largest untapped reserves of oil and gas, as well as valuable minerals.¹⁰ The Russian claims, if realised, would give it access to 4.9 billion tonnes of hydrocarbons, and would see it extend its territory to include the North Pole, the Mendeleev Rise, and the Lomonosov Ridge.¹¹ With climate change leading to shrinking ice and allowing greater access to previously untapped resources, as well as opening up new shipping routes through the Northwest and Northeast passages, a scramble is on in the Arctic, with Russia, Denmark, Norway, and Canada all lodging claims to resource rich territory. Russia is backing up its claims with an increasingly sophisticated military presence throughout the Arctic, which will include military bases that can support deployed forces.

So the drift in Canadian defence spending as noted earlier by Davies may not be sustainable into the future. If Canada were to seek a more robust defence capability, which areas of capability development for the Canadian Armed Forces (CAF) must it prioritise? In considering the future direction of its defence modernisation, Canada should consider the opportunity to participate in the US-led 'Third Offset' strategy as a way forward. Canada's approach to military modernisation has been a largely traditional 'platform-centric' one, based around ships and submarines in a Navy, fighter aircraft and maritime patrol aircraft in the air force, and light infantry in the army. Rather than do 'more of the same,' the CAF should look at innovative approaches to enable it to punch above its weight, whilst minimising the financial impact of such modernisation.

What is 'The Third Offset'?

The third offset, currently at the heart of US defence modernisation strategy, seeks to ensure the US can project power and ensure technological overmatch against rising and returning peer competitors – specifically China and Russia. The offset strategy has emerged in response to a recognition that the American dominance in key warfighting domains is being eroded because of the proliferation of disruptive capabilities across the spectrum of conflict.¹² It also recognises

that the US will have less money to deal with these threats in traditional platformcentric manners by building up a bigger navy, air force, and army.

The 'third offset' follows the 'first offset' strategy which was Eisenhower's 'New Look' doctrine of heavy reliance on tactical nuclear forces to offset Soviet conventional superiority in Europe in the 1950s; and the 'second offset' of precision strike combined with advanced ISR (intelligence, surveillance, and reconnaissance) capabilities to offset a combination of Soviet conventional forces and nuclear parity in both Europe and at a strategic level in the 1970s and 1980s. Introduced by then US Secretary of Defense Chuck Hagel on 15 November 2014, he suggested areas such as robotics, autonomous systems, miniaturisation, 'big data' and advanced manufacturing including 3-D printing.¹³

Two key components of the Third Offset strategy within the formal Defense Innovation Initiative are the Defense Innovation Unit Experimental (DIUx) and the Long-Range Research and Development Planning Program (LRRDPP).¹⁴ The former seeks to act as a bridge between US DoD components, and the private sector, perhaps best epitomized by Silicon Valley. The latter is designed to understand and prioritise new or unconventional application of technology to ensure significant military technological advantage for the US into the future, specifically around the 2025-2030 timeframe. The Third Offset strategy has suggested some key communities of interest that include electronic warfare, space, cyber, ground and sea platforms, air platforms, sensors and autonomy.¹⁵

The Third Offset and Space

From Canada's perspective, greater investment in space capabilities seems worthwhile as an approach and harmonises well with the Third Offset's goals. Space is a critical enabler for *all* military operations and a vital backbone of joint military forces. Space has become a true operational environment of equal importance to air, sea and land. Without Space, modern information-led military operations would be impossible, and US military power would be emasculated. General William Shelton (US Air Force [USAF]), Commander USAF Space Command noted in 2014 that:

We are so dependent on Space these days. We plug into it like a utility. It is always there. Nobody worries about it...You do not even know sometimes that you are touching Space. So, to lose US Space capabilities it would be almost a reversion back to industrialbased warfare.¹⁶

Space is an area where countries like Canada and Australia can play a much more significant role in directly supporting the Third Offset strategy whilst boosting their ability to undertake independent military tasks without incurring huge cost. Canada currently possesses a single radar satellite (RADARSAT II), to which will be added three additional satellites in 2018.¹⁷ These three new satellites will be smaller than the current RADARSAT II spacecraft, and allow more regular revisits of Canada's far north and the Northwest Passage. That allows new applications that allow examination of geographic regions to highlight changes over time for both civil and military observation roles. The RADARSAT II Constellation suggests a future paradigm for Canadian defence space activities, based around small satellites to support communications and earth observation.

Looking beyond the next generation RADARSATs, Canada needs to investigate the potential that CubeSats offer a low-cost option to expand Canadian space capabilities through swarms of networked satellites that whilst diminutive in size (a typical 1U Cubesat being only 10cm x 10cm x 11.3cm), can be scaled up according to operational requirements, are vastly lower in cost, and can be deployed in clusters as a secondary payload on commercial launch services, riding into orbit for very

low cost or even zero cost.18

CubeSats herald a revolutionary change in space capabilities because they open the space domain to a much broader range of customers. Borrowing heavily from commercial off the shelf (COTS) technologies, Cubesats suggest that the business model is more Silicon Valley than Cape Kennedy. The 'small and cheap and many' approach allows a rapid innovation cycle akin to smartphone development that contrasts strongly with traditional approaches. Rather than spend years building a single satellite, CubeSats can be mass produced, continuously upgraded, and launched cheaply as secondary payloads on a regular basis. Their small size and low complexity allow dramatically lower costs in terms of dollars per pound to orbit, with prices as low as \$50,000 for a single 1u satellite, or up to \$250,000 for a more complex 3u CubeSat. More complex designs such as 6u or 12u satellites allow greater capability, but the cost rises, so the paradigm behind the CubeSat concept is to emphasize simplicity. Nor do they need specialised facilities for construction and testing, given they are designed for educational institutions like universities, but are open to even private individuals to build.¹⁹ They are designed to be less risk tolerant than traditional satellites, and a satellite failure with a CubeSat is not disastrous if ten more are waiting and ready to be launched when needed.

While CubeSats are becoming more prolific, space launch costs are declining as new launch technologies emerge. Together with the greater adoption of the CubeSat paradigm, an inflection point in the space sector is becoming clearer. Reusable rocket systems such as those being developed by commercial companies like SpaceX, Blue Origin, and Vulcan Aerospace Stratolaunch point the way to reduced launch costs over traditional fully expendable launchers, with SpaceX aiming for \$1,000 per pound to low-earth orbit (LEO) on their partly reusable Falcon Heavy rocket, to be launched on its first flight during the first quarter of 2017.²⁰ These and other proposed launch capabilities are ideal to support the requirements of CubeSat customers who need rapid and responsive space access to deliver CubeSats for tasks on an 'as needed' basis.

Canadian investment into new types of Space capabilities such as CubeSats directly support the US' Third Offset strategy by contributing to burden sharing in terms of advanced satellite communications, as well as ISR, and even Space-based Space Situational Awareness tasks. Although individual CubeSats cannot match the operational performance of large satellites equipped with advanced sensors, the potential for networking swarms of CubeSats and the sheer number that can be deployed offers different types of advantages over large, unitary satellites, at much lower cost and at much more rapid development timelines.²¹

A key requirement for Earth Observation is rapid revisit rate over geographical locations, such as the high Arctic. A total of three operational Canadian RADARSAT satellites will be in orbit from 2018. These will provide daily revisits of Canada's vast territory and maritime approaches - four passes per day in the far north and several passes per day over the Northwest passage.²² Cubesat swarms could enhance this capability by dramatically increasing the revisit rate, allowing near real time, 24-hour surveillance over areas of key interest, and in a variety of wavelengths. The RADARSAT II constellation will be based around Synthetic Aperture Radar (SAR) sensors, whereas the use of CubeSats would allow a wider variety of sensors than just SAR. If a constellation of thirty CubeSats were deployed at relatively low cost, and regularly updated

Canada's RADARSAT II satellite. (Image credit: Canadian Space Agency.)





An artist's conception of two Earth-orbiting CubSats. (Image credit: NASA.)

with new satellites, some satellites could carry optical or infra-red sensors, whilst others might carry SIGINT or ELINT payloads. Some CubeSats could also support communications roles including space-'gateways' that allow terrestrial CAF forces to ensure stable and secure datalinks between air, naval and ground forces to support the planned two Polar Communications and Weather (PCW) missions satellites.²³

CubeSats also mitigate risk of loss of space capabilities either because of Space Weather caused by solar flares, the growing risk posed by Space Debris, or deliberate attack from a hostile state that is equipped with ASAT capabilities. A large unitary satellite is relatively straightforward to target and attack, whereas a swarm of CubeSats is much more amorphous. The loss of a few CubeSats in a swarm can be replaced relatively quickly if more spares are available for launch, unlike a large satellite that might take years to replace. So CubeSats reinforce dissuasion against an opponent equipped with counterspace capabilities. It becomes harder to attack space capabilities if there are many small satellites than few large satellites. Loss of space capability in a conflict is graceful rather than catastrophic, and can be quickly reconstituted, especially when advances in reusable launch

capabilities are considered. In a recent statement to the US House Armed Services Committee, Deputy Assistant Secretary of Defense (Space Policy), Douglas Loverro stated in regards to the Third Offset and space:

a space offset strategy must employ a diverse set of resilience measures that complicate the technical, political, and force structure calculus of our adversaries, by arraying a complex set of responses, with few overlapping vulnerabilities and a combination of known and ambiguous elements. To do this within our expected budget limitation, the US response is clearwe must leverage our two natural and sustained space advantages: the U.S. commercial/entrepreniual space sector, and our ability to form coalitions with our space-faring allies.24

This is a clear call for greater US cooperation between government and the commercial sector, and between the US government and its key allies, including Canada. The same approach can be developed by those allies, to stimulate their own commercial space sectors and strengthen international collaboration on space capabilities.

Canada's Choices

Canada is never going to have sufficient funding to massively boost the capabilities of their armed forces, or adopt a 'balanced force' approach similar to Australia's. Their geographic proximity to the United States means that they will always have US support because it is not in Washington's interest to permit threats to emerge in the maritime and air approaches to North America. But it is clear from rhetoric emerging from the next administration that US allies will need to share a greater burden, and a 'steady state' approach to Canadian defence modernisation may no longer be sufficient.

The answer is not necessarily to expand the overall size of the CAF in terms of ships, planes, or ground forces, but to strengthen its approach to role specialisation, and investing more in space capabilities seems a clear path forward. Nor does this approach need to cost Canada billions in Canadian dollars. With an active space program in place that contributes to US and other nation's space activities, Canada has a strong foundation upon which to expand into a vibrant new sector of the commercial space community, specifically through looking at CubeSats as a potential path forward. International collaboration with key partners should be a key facet of this, and Canada needs to engage directly with key US 'third offset' groups within government and in private industry.

The potential for collaboration with other partners who are also interested in pursuing CubeSats as a logical path to do more in Space is also clear, and Australia is well positioned to do this. Australia's 2016 Defence White Paper makes clear that the Space Domain is vitally important (4.14), and seeks greater access to "allied and commercial space-based capability" whilst seeking to "further develop our intelligence, surveillance and reconnaissance capabilities in the longer term, including through potential investment in spacebased sensors" (i.e., satellites).²⁵ The 2016 Integrated Investment Plan suggests funding for a Satellite Imagery Capability project from the early 2020s through to the mid-2030s, and notes that "additional investment is planned in space-related capability, including spacebased and ground-based surveillance and reconnaissance systems." (1.21) Australia has just recently supported the Buccaneer CubeSat missions that will enhance ADF defence capabilities by better calibrating the Jindalee Over the Horizon Radar Network (JORN).²⁶

The policy language within the 2016 White Paper imply a growing interest in developing space capabilities, but doing this in a collaborative approach with a partner already well established in the space sector would lead to mutual benefits. Both states working with the Americans on developing innovative and transformative space capabilities as part of the Third Offset strategy fulfils a requirement to share burden to a greater degree in coming years whilst strengthening independent defence capabilities. Australia and Canada may have different strategic outlooks, but their common goal of strengthening relations with the US can progress forward if they are bold enough to reach for the stars.

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