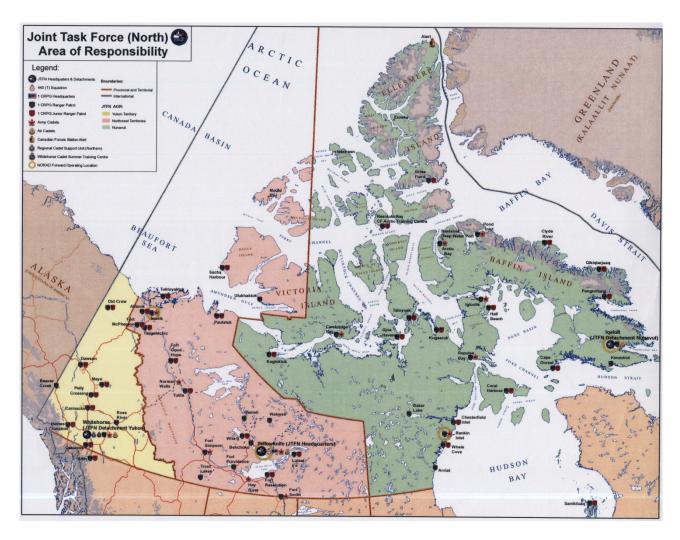


Meeting Probable Challenges and Practical Responsibilities in a Whole of Government Context







A Comprehensive Approach to Canadian Security and Safety in the Arctic:

Meeting Probable Challenges and Practical Responsibilities in a Whole of Government Context

Project Outline

2015-18

P. Whitney Lackenbauer, Ph.D.

Project Overview

Over the past decade, resource development and receding sea-ice have transformed the Arctic from a political afterthought to an area of immediate and expanding security concerns. These emerging security issues will, however, not entail conventional military threats, a fact made abundantly clear in recent years by the Arctic states, which have deliberately dispelled the myth of a "race" between circumpolar nations. Rather, Northern security will be defined by complex and unconventional challenges, such as natural or human disasters, environmental degradation, increased search and rescue requirements, espionage, organized crime, and pandemics. These situations will require a system-wide, multifaceted response that integrates a wide range of military and civilian resources, necessitating a multidisciplinary, trans-sectoral approach to identify research priorities and produce relevant and feasible policy options.

The Whole of Government (WoG) framework has emerged as a centerpiece of federal policy because it offers a way to address these security threats while rationalizing services and leveraging capabilities across government(s) and avoiding costly redundancies. This integrated, comprehensive approach is designed to compensate for the death of infrastructure and assets in the region, while ensuring a more focused response to threats that fall within the purview of multiple departments and agencies. Despite the emphasis placed on WoG in official policy statements, however, operations over the last decade reveal myriad barriers to effective integration and linking of government, local, and private sector partners.

This research program examines Arctic security at an *operational* level to improve our understanding of emerging unconventional threats to the Canadian Arctic and how these can best be managed, and responded to, within a WoG framework. We will focus on lessons learned from past Arctic operations and exercises; civil-military cooperation and communication; and inter-governmental resource sharing, consultation, and integration with local communities, non-government organizations, and the private sector. Our objective is to discern best practices, fill in knowledge gaps, and identify problem areas through in-depth case studies and interviews with Arctic practitioners and policy makers. We intend to produce innovative frameworks, both theoretical and practical, that build and/or refine WoG/Comprehensive Approaches consistent with Canada's Northern and national interests. Our results will have important implications for academics, policy-makers, Arctic operators, and Northern community members, who will directly benefit from more robust security and safety activities that address their needs in a culturally and environmentally responsible manner.



Project rationale, goals and objectives

Climate change. Newly accessible resources. New maritime routes. Unresolved boundary disputes. New investments in military capabilities to "defend" sovereignty. Unsurprisingly, the Arctic has emerged as a topic of tremendous hype (and deep-seated misperceptions) over the past decade, spawning persistent debates about the whether the region's future is likely to continue along cooperative lines or spiral into unbridled competition and conflict (Griffiths et al 2011). These debates about regional defence and security remain significant in shaping expectations for the Government of Canada and for the Canadian Armed Forces (CAF) more specifically. Despite the considerable ink spilled on boundary disputes and uncertainty surrounding the delineation of extended continental shelves in the Arctic, official statements by all of the Arctic states are quick to dispel the myth of a "race" between circumpolar nations, arming in preparation for a resource-fueled conflict (eg. Lackenbauer 2009; Lasserre et al 2013). In short, policy trends over the past decade indicate a strong trend toward international cooperation and more closely integrated domestic efforts, as identified in *Canada's Northern Strategy*.

Although official Canadian assessments do not anticipate any conventional military threats to the region, they do foresee a rise in **security and safety** challenges that require an integrated Whole of Government (WoG) or Comprehensive Approach (DND 2010a). Our conversations and meetings with senior federal, territorial, and military officials demonstrated the need for more academic attention to security issues (which are expected to proliferate as new development projects and trade routes emerge in the region) at the *operational* level. This requires a more nuanced and multifaceted definition of security than what typically has been a narrow, academic fixation on the possibility of inter-state conflict in the region (Nicol 2010; Lackenbauer 2013; Hoogensen Gjørv et al 2014).

Lasting solutions to complex security challenges (such as natural or human disasters, environmental dumping, increased search and rescue incidents, espionage, organized crime, or pandemics) require a system-wide, multifaceted response that integrates a wide range of civilian and military resources. Flowing from this reality, recent strategic documents situate the military's role in a broader, WoG context (DM/CDS 2011). While other departments and agencies are the mandated leads to deal with most Northern security issues, the Canadian Armed Forces are expected to "lead from behind" in many scenarios given their assets/capabilities and the limited resources of other potential responders in the region (CFDS, 2008). This entails a reconceptualization of the Northern security landscape, moving away from a fixation on the international security environment (which strategic planners assess as low-risk) towards practical questions related to operational challenges and the need for rapid, coordinated responses.

The Whole of Government framework has emerged as a centerpiece of federal policy in the Arctic because it offers a way to rationalize services and leverage capabilities across government(s) and avoid costly redundancies. Emerging under several labels (Halligan et al 2011: 75), the concept is predicated on enhanced horizontal coordination between government departments and agencies (and, in some cases, non-government stakeholders) to cut across traditional institutional silos and achieve a shared goal. Although the WoG concept is simple, its implications are significant – and it is very difficult to implement in practice. Given the dearth of infrastructure and limited government capacity in the Arctic, cooperation is a

prerequisite to effective regional and local operations. Nevertheless, how the Canadian Armed Forces and other government departments and agencies actually implement and exercise a WoG directive is far from straightforward. Officials have acknowledged the potential value of integrated government approaches since the 1970s, and advanced the concept in the last two decades of the 20th century when federal, territorial, and northern indigenous representatives worked cooperatively to address environmental contaminants (Lackenbauer and Kikkert 2009). Translating a WoG philosophy into effective planning and operations, however, has always proven difficult. As Major-General Christopher Coates observes, it is easy for departments to stay insulated within their own priorities and mandates because "there is no single focal point for domestic federal arctic efforts" (Trent University et al, 2014).

Efforts to create inter-departmental synergies to prepare, coordinate, and respond to practical security and safety challenges in a domestic Arctic context remain a work-in-progress. Despite the emphasis placed on Whole of Government in official policy statements, operations over the last decade reveal myriad barriers to effective integration and linking of government, local, and private sector partners. These obstacles include a lack of designated funding for initiatives that cut across departmental or government lines, policy structures that do not align (particularly across the civilian-military divide), and jurisdictional silos that inhibit (or prohibit) collaboration (Trent University et al 2014). In the case of the Canadian Arctic, implementation requires fundamentally altering military and public sector cultures, including chains of command, procedures, channels of communication, and even issues of terminology and vocabulary (Gizewski 2012). While interdepartmental deputy and assistant deputy minister committees in Ottawa and the Arctic Security Working Group in Yellowknife encourage collaboration between National Defence, Public Safety Canada (PSC), the Royal Canadian Mounted Police (RCMP), the Canadian Coast Guard (CCG), the Canada Border Service Agency (CBSA), Transport Canada, and other stakeholders on security initiatives, significant friction and gaps remain that inhibit operational efficiencies and effectiveness. Furthermore, federal stakeholders must collaborate with territorial/provincial, municipal, and Aboriginal governments that have their own priorities and needs.



Objectives – to address various core questions:

- What are the most pressing security and safety threats and hazards facing the Canadian North, what government and non-government capabilities exist to respond to them, and which stakeholder has or should have the lead?
- What are the lessons learned from WoG exercises and operations over the last decade, and how can these be better absorbed and integrated into military and government culture?
- How can existing roadblocks to intra- and inter-governmental cooperation be overcome? When are
 formal approaches better than informal ones, and vice versa (Alexander and Cote 2011: 1)? Is new
 government "machinery" needed to advance WoG solutions in the Arctic? What does an "integrated
 northern operating picture" (DND 2012: 26) actually look like and involve in practice?
- How can governments better engage non-governmental and civil society organizations for partnership, guidance and assistance to produce innovative, affordable solutions and to encourage burden-sharing (USCG 2013: 32)?
- How do duties to consult and accommodate Aboriginal peoples (AANDC 2011) apply in the security
 and safety sectors? How do the priorities of Northern indigenous communities fit with those of
 governments (IKC 2013)? How can security and safety initiatives achieve enduring, positive results
 for Northern communities (DND 2013: 22)?
- What lessons can be learned from Whole of Government practices elsewhere (in/by Canada and other countries) that might be applicable to the Canadian Arctic context?

Hypotheses

- The Arctic poses unique challenges that require innovative, comprehensive approaches to synchronize efforts and address security and safety threats/hazards in a timely, efficient, and credible manner that promotes national goals of regional prosperity and stability and is responsive to Canadian interests and values (Canada 2009).
- In theory, better integrating government actions will help to achieve strategic and policy objectives and provide greater clarity and transparency in decision-making. Analyzing government priorities in a WoG context helps to identify policy and capability gaps, and thus to discern areas where relationships and goals need to be strengthened (EC 2010).
- Diverse organizational cultures must be brought together (and changed) to ensure that planning, training, and operations make efficient use of limited resources, given austere budgetary environments and the increasing tempo and complexity of activities in the Arctic.
- Streamlined decision-making that remains sensitive and receptive to diverse views and perspectives, reduces redundancies, leverages government and non-government resources, and produces greater operational certainty will engender a higher level of trust and credibility than can be achieved by units working in isolation (USCG 2013: 32; US Interagency Working Group 2013: 45, 48; Halligan et al 2011: 75).
- For an integrated, comprehensive approach to address practical security and safety issues in accordance with Northerners' interests, partnerships must also extend beyond the federal level to include territorial/provincial, indigenous, and community-level stakeholders (DND 2010; WDGF 2014).

Methodological approach

Our team of historians, political scientists, lawyers, and geographers offers the interdisciplinary expertise, contacts, and experience to assess challenges and opportunities associated with a Whole of Government (WoG)/Comprehensive Approach to anticipating and addressing trans-sectoral Arctic sovereignty, security, and safety issues. Our mixed qualitative methodologies build upon the expertise of academics, government officials, military personnel, indigenous representatives, industry, and other non-governmental organizations to identify "best practices," discern gaps and opportunities, and propose priorities for enhanced cooperation.

Given the multidimensional nature of emerging Arctic challenges, we adopt definitions of Arctic security that move beyond traditional frameworks focused on potential inter-state military conflict (eg. Huebert 2010) to emphasize broader human and environmental issues that government and Northern representatives identify as the most pressing security and safety concerns. These include search and rescue (SAR), major transportation disasters, environmental disasters, loss of essential services (eg. potable water, power, and fuel supplies), organized crime, foreign state or non-state intelligence gathering activities, attacks on critical infrastructure, food security, and disruptions to local hunting and transportation practices caused by shipping or resource development (eg. DND 2010, 2011, 2012, IKC 2013, WDGF 2014). Rather than positing military and human security agendas in conflict, we will offer critical academic guidance to support efforts to develop a collaborative, culturally-complex WoG paradigm, consistent with Canada's *Northern Strategy* goals (2009), to address emerging threats and hazards in the twenty-first century.

Given the complexity and pace of Arctic change, the military's Arctic Integrating Concept notes that "new interpretive frameworks are essential in order to respond effectively to changes occurring in the region. Until these frameworks have been established, it may be difficult to understand what is happening in the Arctic, and provide options on how best to respond to crisis or emerging threats to Canadian security or sovereignty" (2010: 6). We intend to provide just that: innovative frameworks, both practical and theoretical, that build and/or refine WoG/Comprehensive Approaches consistent with Canada's Northern and national interests. Our results will have important implications for academics, policy-makers, Arctic operators, and Northern community members, who will directly benefit from more robust security and safety activities that address their needs in a culturally and environmentally appropriate manner.



Interviews, focus groups, and fieldwork with federal, territorial, provincial and Aboriginal government officials, Northern community members and industry

Through semi-directed interviews, members of the research team will document how officials and other stakeholders conceptualize security and safety issues, where they perceive critical capacity and policy gaps, and what goals they envisage for an integrated, comprehensive approach. In addition to individual interviews and participation in the Arctic Security Working Group (see below), we plan to host small roundtables or focus groups in the North (supported by federal departments) and, where required, will seek supplementary funding from government, academic, and private funding agencies to support these activities. A Comprehensive Approach to security also must incorporate partnerships between federal, territorial, and local government departments, as well as industry and other non-governmental organizations (Bentley 2012). We will build or expand our network of contacts across the federal and

territorial governments and in local communities. In year one, the focus of this networking will be to gain new insights and better refine our research program in three specific areas:

- Shipping: a team led by Lasserre and Lajeunesse will analyze efforts by the Royal Canadian Navy, Coast Guard, Transport Canada, RCMP, and industry to enhance Arctic Maritime Domain Awareness, producing insights into how to develop a robust Arctic Common Operating Picture that fuses, analyzes, and interprets data from various sources within and around the North.
- Oil and gas and mining industries: a team led by Dolata and Lajeunesse
 will examine the security implications of resource development,
 focusing on questions of jurisdictional boundaries, joint operations, and
 support requirements between the CAF, RCMP, OGDs,
 territorial/provincial governments, land claim corporations, and
 municipal governments. A pilot project will focus on how a WoG
 approach can support the Beaufort Offshore Emergency Management
 project currently being developed by the National Energy Board.
- Safe and secure Northern communities: led by Lackenbauer and Kikkert, the project team will work with and through the Arctic Security Working Group to discern priorities and ways to enhance capability mapping of communities, carrying forward the work of the Multi-Agency Situational Awareness System (MASIS) project in partnership with JTF(N), Public Safety Canada, and local fire marshals in the territorial north. Our team (led by Lackenbauer and Nicol) also will pursue opportunities to contribute to the ongoing efforts to document and disseminate Northern perspectives on security and safety issues associated with Arctic development, continuing an initiative begun by the Walter & Duncan Gordon Foundation (one of our partners).







Participant observation in Whole of Government and Canadian Armed Forces (CAF) exercises

The biannual Arctic Security Working Group (ASWG) co-chaired by Joint Task Force North (JTFN) and the northern regional office of Public Safety Canada, brings together participants from federal departments and agencies, as well as territorial governments and other stakeholders (eg. Aboriginal governments and organizations). Lackenbauer, Lalonde, Lajeunesse and Huebert will continue to participate as academic representatives at the biannual ASWG meetings in Yellowknife to network with federal and territorial stakeholders and keep current on sovereignty, security and safety issues. Lackenbauer, who was appointed the Honorary Lieutenant Colonel of 1CRPG for a three-year term beginning in September 2014-17, will have extensive opportunities to travel to Arctic communities to meet with Rangers and will continue to seek opportunities for emerging scholars (graduate students and postdoctoral fellows) to travel to the North for field research alongside or as part of Ranger exercises and other military or WoG operations.

Discern best practices using historical and contemporary case studies

Members of the project team will conduct intensive documentary research in government records to supplement interview data that they collect on military and WoG operations in response to safety and security challenges (including humanitarian and disaster relief) since the 1970s, with a primary focus on the last decade. We will use this to compile systematic "lessons learned" to determine how inter-departmental and inter-governmental relationships have (or have not) changed to cope with complexity, the extent to which government security programs have been implemented successfully, and to assess issues of institutional credibility and/or culture. Support from collaborators within government will facilitate various forms of formal and informal access to information.

International dimensions

This project also critically examines "lessons learned" from and opportunities for partnership with other Arctic states. For example, the US Department of Defense's Arctic Strategy (2013) adopts a broad definition of security that alludes to the benefits of "burden-sharing" across agencies and with international partners. Likewise, Norway's *High North Strategy* (2006) mentions the need to "mobilise the whole government apparatus," and the Russian Federation's *National Security Strategy* (2009) is "the basis for constructive



cooperation between state authorities, organizations and associations." We anticipate opportunities for international academic and policy collaboration on these topics. This aspect of the project will be led by Lalonde and Roussel.

Preliminary Research Plan and Milestones

Networking, Project Definition/Refinement, and Preliminary Research Phase (year one: 2015-16)

- Comprehensive collection/analysis of documentary material (trans-sectoral), literature reviews, and interviews on Arctic security and safety issues.
- Ongoing participation by research team members in the biannual Arctic Security Working Group (ASWG), which is a key mechanism for formal and informal research gathering and knowledge exchange with Northern stakeholders.
- Public outreach with members of 1st Canadian Ranger Patrol Group, building/confirming
 partnerships with communities and regional organizations to secure permission to include
 Traditional Knowledge in the published version of *The Canadian Ranger Arctic Survival Guide*.
- Meetings with government, Northern community, industry, and NGO representatives in the
 national, territorial/ provincial, and regional capitals to refine priority issues/areas and clarify
 capability/policy/research gaps. Based on past experience, this knowledge exchange process will
 broaden our research network and shape our specific research priorities for subsequent years of
 the project.
- Edited volume on Arctic Operations: Lessons (Re)Learned (Lackenbauer and Lajeunesse) to be submitted to Canadian Defence Academy Press in August 2015.
- Monograph, Operation Nanook: Whole of Government Lessons Learned (Lackenbauer and Lajeunesse), to be written at the request of (and supported by) Public Safety and JTFN, to be submitted February 2016.
- Complete participant observation, focus groups, and public outreach with members of 1st Canadian Ranger Patrol Group (1 CRPG) to produce a draft of *The Canadian* Ranger Arctic Survival Guide (co-authors Lackenbauer and M.A. student Lisa Beiler, in partnership with 1 CRPG).
- Articles, policy briefs and working papers on the effectiveness of the Whole of Government (WoG) framework in the Arctic, with an emphasis on the costs and benefits of a comprehensive approach to security
 - and safety. These will include specific case studies on efforts to enhance Arctic Maritime Domain Awareness, the Beaufort Offshore Emergency Management project, and the Multi-Agency Situational Awareness System (MASIS) project that contain specific policy recommendations for public officials.
- Public roundtable in Yellowknife to exchange knowledge on security and safety issues, and a
 workshop for project team members in Montreal, organized by Roussel's Observatoire de la
 Politique et la Sécurité dans l'Arctique (OPSA, www.arctique.uqam.ca/) and co-hosted with Trent
 University (Nicol) and Canadian Defence Academy (Bentley).



Intensive Research Phase (year two: 2016-17) and Analysis, Synthesis and Dissemination Phase (year three: 2017-18)

- Ongoing data collection and coordinated interviews; roundtables in Ottawa, Whitehorse and Yellowknife (and other Northern communities where feasible); analysis and writing up of results on focused case studies (identified based upon conversations with Northerners and stakeholders in year one)
- Knowledge exchange workshops in Ottawa, Yellowknife and Iqaluit, as well as presentation of
 research at academic and professional conferences (Canadian and international). Members of the
 research team (including students) will submit proposals each year to present at the annual
 ArcticNet conference.
- Scholarly articles and book chapters on WoG/Comprehensive Approaches in Canadian and international contexts, including historical and contemporary case study assessments of the Advisory Committee on Northern Development, the Arctic Security Working Group, Search and Rescue (ground, air, and maritime), public-private partnerships (such as the Alaskan Clean Seas initiative), and humanitarian/disaster responses.
- Commentaries, "op-eds," and shorter policy examinations for *Canadian Military Journal*, *International Journal*, and other professional journals such as *Frontline Security* and the *Canadian Naval Review*, as well as newspapers such as the *Globe and Mail*, *National Post*, *News/North*, and *Nunatsiag News*.
- Monograph on Canadian Arctic Sovereignty, Security and Safety: Framing a Comprehensive, Whole of Government Approach (co-authored by the research team contributing in their areas of expertise).
- Edited volume on *Learning Together: Circumpolar Lessons Learned from Arctic Operations*. This multidisciplinary, trans-sectoral book project will be pursued in collaboration with academics from around the circumpolar world. We plan to build the requisite network of contacts in years one and two of the project.
- Presentations to policy-making bodies, such as the Deputy Minister Ad Hoc Committee on the Arctic, Assistant Deputy Ministers' Coordinating Committee on the Arctic, the Defence Arctic Steering Committee, the Deputy Ministers' Ad Hoc Committee on Search and Rescue and/or the federal Interdepartmental Committee on Search and Rescue. We will also pursue partnerships with private sector partners to facilitate knowledge exchange.
- Educational materials in support of the Building Experiential Learning Capacity in the Canadian and Circumpolar North partnership project (led by Nicol, applied for \$2.5 million SSHRC Partnership Grant in October 2014), particularly through academic work on best practices that will inform training and development packages created to teach public sector security professionals how to oversee WoG operations.
- Design a website to serve as a portal for working papers, documents, and project updates.



Knowledge Exchange

The general themes for our project have been framed in dialogue with stakeholders from various sectors and, working directly with regional partners to identify specific research priorities, our research findings will be compiled into both pan-Arctic and regional assessments. These will assist policy-makers and practitioners in integrating and implementing best practices into their responses to emerging or changing security and safety challenges. As letters of support from our partners suggest, our team and partners anticipate significant, practical benefits for Northerners as well as government and private sector operators. Our continued relationship with the Canadian Rangers ensures that our collaborative work will remain firmly grounded in Northern communities.

- We will develop a website to share working papers, workshop reports, and project updates with all of our partners and other federal government and Northern stakeholders.
- We will disseminate our results directly to Northern policy-makers (federal and territorial officials) through our involvement in the **Arctic Security Working Group** (which meets twice annually).
- We will host public roundtables and workshops to disseminate research findings to community and
 public sector audiences in Ottawa, Yellowknife, and Iqaluit. Agendas and invitation lists will be
 developed in consultation with Northern partners. Proceedings will be recorded and, with the consent
 of participants, will be made available online.
- Our publications will be a mix of peer-reviewed, academic books and articles, as well as books, chapters, articles, and short commentaries or reports aimed at public servants and Northern stakeholders.
- **Reports** that capture "lessons learned" from operations, exercises and other activities conducted in the North will be provided directly to relevant government departments and agencies.
- We will brief policy officers, Directors, and other key personnel through the Department of National Defence's **Expert Briefing Series**.
- Results will be communicated at academic conferences through papers presented by team members.
- Our project will also produce educational materials in support of the Building Experiential Learning
 Capacity in the Canadian and Circumpolar North partnership project, particularly through academic
 work on best practices that will inform training and development packages created to teach public
 sector security professionals how to oversee effective, inclusive WoG operations.
- Members of the project team will continue to be active in commenting on Arctic issues in the **media** (television, radio, newspapers).



Conclusions

Our team's discussions with federal, territorial and Northern community stakeholders have pointed to the need for an in-depth "outside" review of the government's WoG framework and how it can better contribute to security and safety in the Arctic. Despite the tremendous emphasis placed on WoG in official statements over the past decade, departmental silos remain largely intact and lessons from operations and exercises have not been fully absorbed. In part this reflects established institutional cultures that are resistant to change, and indicates a persistent inability to discern and disseminate lessons through internal government mechanisms. Accordingly, we believe that our empirical evidence and theoretical insights into how to envisage, implement and sustain comprehensive security approaches will have direct, positive policy and practical benefits for governments and for Northern communities. Arctic practitioners are anxious to fix this widely-recognized problem, and the design of our project reflects their strong desire to work with a trusted group of academics to parse the issues, identify best practices, and suggest areas for improvement.



Project Team

P. Whitney Lackenbauer (Professor and Chair of History, St. Jerome's University/University of Waterloo), the project lead, is well versed in the relevant international relations, security and legal theory, as well as contemporary debates on government practices in and regarding the Canadian North. He was co-lead of the ArcticNet project on the Emerging Arctic Security Environment (2011-15), sits on the Arctic Security Working Group, has participated in many "whole of government" and Canadian Armed Forces operations in the Arctic over the past decade, and regularly runs courses and seminars for federal departments on Arctic policy. He has appeared before parliamentary committees, prepared policy reports for various government departments, and served as an advisor/consultant to Aboriginal organizations. In October 2014, he was made the Honorary Lieutenant Colonel of 1st Canadian Ranger Patrol Group for his work with the Rangers in the Territorial North. He will continue to work with the Canadian Rangers and Northern governments to incorporate Northern guidance and perspectives into this project. Lackenbauer has held several SSHRC grants on Arctic security issues, a Fulbright Fellowship at Johns Hopkins University (2010), and was co-chair of the Arctic Peoples and Security pillar of the Munk School-Gordon Foundation Arctic Security project (2011-13). He has published dozens of books and articles on Northern issues and is a frequent contributor to media and policy discussions on the subject. As project lead, he will coordinate the overall research and partnership program, mentor the postdoctoral members of the team, and will act as the lead mentor for student research assistants.

Heather Nicol (Professor of Geography, Trent University) is a political geographer with expertise in border studies, critical Arctic geopolitics/geo-economics, indigenous sovereignty, and regionalism. She a member of the European-based Thematic Network on Arctic Geopolitics and Security, Arctic regional lead for the SSHRC Borders in Globalization Partnership project, and primary investigator for a current SSHRC Partnership Letter of Intent focused upon building experiential learning capacity in the Canadian North. She was recently awarded a SSHRC Connections grant focused on Whole of Government Approaches to Arctic Security and Sovereignty. Her research efforts seek to entrench collaborative and culturally complex security paradigms in policy-making and training for security professionals. She will work with Lackenbauer as the primary liaison with the Canadian Defence Academy, with which she has an established relationship. Her work as a geographer attempts to deconstruct narrow definitions of security and sovereignty and conflict models of international relations, recasting these understandings to better deliver Northern security under conditions of partnership with indigenous peoples and non-governmental actors.

Ryan Dean (Ph.D. student, University of Calgary) began his doctoral studies in political science in September 2014 with a focus on circumpolar affairs, international relations, and Canadian foreign and defence policy. He has published various articles, book chapters, and working papers on Arctic governance and security issues, and is currently finishing a book on Operation Gauntlet, a Canadian-led expedition to evacuate Russians and Norwegians from Svalbard during the Second World War, with Whitney Lackenbauer.

Petra Dolata (Associate Professor, History, University of Calgary), an historian of energy, taught at Freie Universität Berlin and at King's College London before accepting the Canada Research Chair in History of Energy this year. She was a Visiting Scholar at the Munk Centre for International Studies, University of Toronto (Government of Canada Award, 2004), at the Centre for European Studies, Carleton University (2008) and the Norwegian Institute for Defence Studies, Oslo (2013). Her research focuses on energy security in a North American and transatlantic context, as well as the intersection between perceptions of "national interest" and identity politics in constructing understandings of sovereignty and security. Petra will co-lead research on energy and resource development dimensions of Arctic security.

Dan Heidt (SSHRC postdoctoral research fellow at Trent University, 2014-16) will focus on overarching project management tasks, coordinating knowledge mobilization and dissemination plans, organizing conferences and workshops, and liaising with publishers and website hosts to dissemination research findings.

Rob Huebert (Associate Professor of Political Science, University of Calgary), a leading Canadian commentator on Arctic security and defence issues in media, academic, and policy circles, will continue to monitor and analyze Arctic defence and international security trends, with a particular focus on strategic policy and military capabilities and how developments impact on Canadian Arctic security.

Peter Kikkert (SSHRC postdoctoral research fellow at Trent University, 2015-17) will work with 1st Canadian Ranger Patrol Group and other organizations to firm up plans to involve Northern youth in research and dissemination activities.

Adam Lajeunesse (SSHRC postdoctoral research fellow at St. Jerome's University, 2014-16) will work with Public Safety Canada, Joint Task Force (North), and other federal and territorial departments and agencies to capture "lessons learned" from Whole of Government operations and exercises, including focused studies on Op NANOOK and the Arctic Security Working Group.

Suzanne Lalonde (Professor of International Law, Université de Montréal) will be the lead on examining the impact of legal systems on security and safety issues. As a specialist of the Law of the Sea, with a particular emphasis on the Arctic, she has appeared before parliamentary committees, has advised the Government of Nunavut, has taken part in Canadian Forces operations in the North, and regularly participates in the biannual meetings of the Arctic Security Working Group. She has been involved in various research projects analyzing the legal implications of an increasingly accessible Arctic region, identifying the most effective legal mechanisms - national, regional and international — to adequately protect the Arctic marine environment and the critical role it plays in the life of Northerners. She will continue this groundbreaking work on the application of international and domestic laws related to Arctic security and safety issues, including how federal, territorial, and land claim jurisdictions may be applied, and will co-lead research efforts on opportunities for enhanced circumpolar partnerships.

Frédéric Lasserre (Professor of Geography, Université Laval) has conducted extensive research on shipping economics in the Arctic, discourse on natural resources from Arctic States, maritime borders, China's interests in the Arctic, and military policies in the Arctic. Accordingly, he has a strong familiarity with security issues related to natural resource exploitation, shipping, the interest of non-Arctic state "newcomers" like China, maritime boundaries, and military spending and discourse. All of these

dimensions relate, indirectly or directly, to this project on Arctic security and safety issues. Dr. Lasserre will be co-lead on shipping issues.

Christian Leuprecht is Associate Dean of the Faculty of Arts and Associate Professor in the Department of Political Science and Economics at the Royal Military College of Canada, and cross-appointed to the Department of Political Studies and the School of Policy Studies at Queen's University where he is also a fellow of the Institute of Intergovernmental Relations and the Queen's Centre for International and Defence Policy. His research priorities include national security and defence policy, politically-motivated violent extremism/terrorism, border security, and horizon scanning of emerging security threats. He will be involved in linking the project to broader WoG initiatives, networking with military professionals, and organizing conferences and workshops in Ottawa and Kingston.

Stéphane Roussel (professeur titulaire, École nationale d'administration publique) will co-lead research efforts related to international best practices and opportunities for enhanced circumpolar partnerships, with particular emphasis on the United States. He is particularly well suited to this role, given his position as Director of the Observatoire de la Politique et de la Sécurité dans l'Arctique (OPSA) and Director of the Centre interuniversitaire de recherche sur les relations internationales du Canada et du Québec (CIRRICQ). He has published widely on topics of Arctic security, with particular critical emphasis on political constructions of Canadian interests, on Canadian public opinion, and on Canada's relations with the United States and European countries. He has extensive experience working with governments, policy think tanks, and the military.

Graduate students in political science, history, law and/or geography will focus their energies on gathering relevant published literature, assisting the research team in planning research trips and workshops, collecting and managing research materials, and disseminating information on the website, thus advancing their understanding of interdisciplinary theories and methodologies as well as developing their knowledge mobilization and data management skills. They also will be expected to help develop and implement consultation and community engagement plans, secure requisite research ethics approvals, and present their findings at conferences and workshops, in academic papers, and in specialized reports or media products. One student will be tasked with compiling and organizing interview data and schedules to ensure that material is accessible to all researchers and maintained in compliance with proper ethics standards.

Partners

Dr. Bill Bentley, the Head of the Leadership Theory Section of the Canadian Forces Leadership Institute/Canadian Defence Academy, brings considerable expertise to our project on the relationship between professional development and security. He served in DND for 47 years (13 as an Associate Professor at the Royal Military College of Canada), and has also served as a Professor of Military Science at the US Army Command and Staff College and with the DFAIT as Director of Peacekeeping. Bentley has extensive experience applying systems thinking to issues in international relations, war and conflict, and other complex problems related to defence. He will engage with the research team on theoretical dimensions and help to facilitate the publication of key reports and book-length studies through CDA Press

(which he oversees) to ensure that they reach a broad range of operators within the Department of National Defence/Canadian Armed Forces and throughout the federal family.

Major General Christopher Coates, Deputy Commander Continental, Canadian Joint Operations Command (CJOC), is responsible for the oversight of all Canadian Armed Forces operations in North America (including the Arctic). He will continue to advise the project team in identifying research areas of priority and interest to DND and help to ensure that our research findings are considered by key policy-makers and users within the military. For an elaboration on the significance of this project to the military in a Whole of Government context, please see his letter.

Brigadier-General **Greg Loos**, Commander Joint Task Force (North) based in Yellowknife, will continue to support various research team members' participation in the Arctic Security Working Group. If ArcticNet funding is secured, he has agreed to meet with Dr. Lackenbauer to explore opportunities to formalize the research relationship, where appropriate and possible. We anticipate that this will include ongoing opportunities for project team members to observe military operations and exercises in the North.

Kellie Mitchell, Arctic Regional Director for Public Safety Canada (based in Yellowknife) and the co-chair of the Arctic Security Working Group, will provide members of our research team with office and meeting space to use when we visit the NT, facilitate access to unclassified documentary material related to the Arctic Security Working Group and federal-territorial policy frameworks, and help arrange interviews with key stakeholders and knowledge holders in the federal and territorial governments. A more detailed description of her support is provided in her letter.

David Miller, the Northern Coordinator of the Canadian Polar Commission based in Yellowknife, is responsible for the Commission's northern outreach and for coordinating its northern-based activities. He also provides secretariat services to the Canadian Network of Northern Research Operators. He brings to the project an understanding of the role of research support and the organization of governmental interests and collaborations in Arctic policy-making. Given his perspective on the broad landscape of polar research, he will help to identify opportunities for interdisciplinary and trans-sectoral research. Given his 25-years as a public broadcaster in the three territories, he will also provide insight into crisis communications as a consideration in security and safety planning.

Major **Craig Volstad**, as commanding officer of 1st Canadian Ranger Patrol Group headquartered in Yellowknife, will continue to support and facilitate the *Canadian Ranger Arctic Survival Guide* project, explore opportunities to work with Northern youth in the Junior Canadian Rangers to gather information on security and safety practices with elders and other local and traditional knowledge holders in their communities, and will fund some Arctic travel for Dr. Lackenbauer that he can leverage for academic research. A more detailed description of his support is provided in his letter.

Ed Zebedee, Director, Protection Services, Government of Nunavut, will provide access to office space and lead time access to the internet through the GN system when project members are working in Iqaluit. He has agreed to help identify research priorities and relevant case studies, and to identify and reach out to prospective territorial and community partners given his extensive network throughout the territory. He will also provide input into potential workshop themes and agendas, and participate in workshops. A more detailed description of his support is provided in his letter.

Ron Kroeker, Acting Director, Policy and Programs, at the National Search and Rescue (SAR) Secretariat, Department of National Defence, Ottawa, will assist the team in identifying research priorities and relevant case studies; connecting us to SAR practitioners across the territorial north; providing input into potential workshop themes and agendas; and participating in workshops and roundtables. Please see his letter of support emphasizing the importance of academic work on SAR.

The Laurier Centre for Military, Strategic and Disarmament Studies (Wilfrid Laurier University), Centre for Military and Strategic Studies (University of Calgary) and St. Jerome's University will provide staff support and office space, including support to develop and maintain a project website, assistance with the production of e-books and print publications, and access to research assistants. More detailed information is provided in their letters of support.

The **Walter & Duncan Gordon Foundation** has agreed to share its research on emergency preparedness in the Arctic that was collected pursuant to the Munk-Gordon Arctic Security Program in 2013-14. It has also agreed to help coordinate projects that are built from Foundation-completed research, increasing a smooth transition in expanding completed projects, and building bridges between researchers, the Gordon Foundation and strategic partners. **Vanessa Gastaldo**, the program officer responsible for the Munk-Gordon Arctic Security Program, will be our primary point of contact at the Foundation for this project.



Selected Bibliography

- Abele, Frances, Thomas Courchene, Leslie Seidle, and France St-Hilaire, eds. 2009. *Northern Exposure: Peoples, Powers and Prospects for Canada's North*. Ottawa: Institute for Research on Public Policy.
- Aboriginal Affairs and Northern Development Canada (AANDC). 2011. Aboriginal Consultation and Accommodation -Updated Guidelines for Federal Officials to Fulfill the Duty to Consult.
- AANDC. 2013. BREA Study on Inuvialuit Community Spill Response Training in the Beaufort Region: Current Capacity, Projected Need, Realistic Roles and Gap Identification. KAVIK-STANTEC Inc. and SL Ross Environmental Research Ltd.
- Alexander, Jenna and LCol Dalton Cote. 2011. Leadership in Whole-of-Government Operations: A Case Study of Security in the Canadian Arctic. Kingston: Canadian Forces Leadership Institute Monograph 2011-1
- Arctic Council. Arctic Climate Impact Assessment (ACIA). 2004.
 Impacts of a Warming Arctic: ACIA Overview Report. Cambridge: Cambridge University Press.
- Arctic Council. Arctic Monitoring and Assessment Program (AMAP). http://www.amap.no/.
- Arctic Council. Protection of the Arctic Marine Environment (PAME). 2009. Arctic Marine Shipping Assessment (AMSA) 2009 Report.
- Arctic Council. PAME. 2013. Status on Implementation of the AMSA 2009 Report Recommendations.
- Arctic Security Working Group Minutes and Briefings. 1998-2014. Controlled access limited to members.
- Aucoin, P. 2002. "Beyond the "new" in public management reform in Canada: catching the next wave?" CJC Dunn Ed. *The Handbook of Canadian Public Administration*. Oxford University Press.
- Baker, Betsy. 2009. "Filling an Arctic Gap: Legal and Regulatory Possibilities for Canadian-U.S. Cooperation in the Beaufort Sea," Vermont Law Review 34: 57-120.
- Bakvis, H. and L. Juillet. 2004. *The Horizontal Challenge: Line Departments, Central Agencies and Leadership*. Ottawa: Canada School of Public Service.
- Balasevicius, Major Tony. 2011. "Towards a Canadian Forces Arctic Operating Concept." Canadian Military Journal 11, no.2: 21-31.
- Balzacq, Thierry, ed. 2011. Securitization Theory: How security problems emerge and dissolve. London: Routledge.
- Bardach, E. 1998. Getting agencies to work together: the practice and theory of managerial craftsmanship. Washington: Brookings Institute Press.
- Barnett, J. 2001. The Meaning of Environmental Security. New York: Zed
- Bentley, Bill, and Grazia Scoppio. 2012. *Leading in Comprehensive Operations*. Kingston: Canadian Forces Leadership Institute Monograph 2012-2.
- Black, R., J. Bruce, and M. Egener. 2010. *Managing the Risks of Climate Change: A Guide for Arctic and Northern Communities*. Centre for Indigenous Environmental Resources.
- Booth, Ken. 2007. *Theory of World Security*. Cambridge: Cambridge University Press.
- Borgerson, Scott. 2008. "Arctic Meltdown: The Economic and Security Implications of Global Warming." *Foreign Affairs*: 63-77.
- Borgerson, Scott G. 2013. "The Coming Arctic Boom: As the Ice Melts, the Region Heats Up," *Foreign Affairs*.
- Bourgault, J and R. Lapierre. 2000. *Horizontality and Public Management*. Ottawa: Canadian Centre for Management Development.
- Brigham, Lawson. 2010a. "The Fast-Changing Maritime Arctic." US Naval Institute *Proceedings*: 54-59.
- Brigham, Lawson. 2010b. "Think Again: The Arctic," Foreign Policy: 71-74.

- Brigham, Lawson et al. 2013. "Projected 21st-century changes to Arctic marine access." *Climate Change* 118:3-4.
- Bristow, Marta and Vijay Gill. 2011. Northern Assets: Transportation Infrastructure in Remote Communities. Ottawa: Centre for the North.
- Bubandt, N. 2005. "Vernacular Security: The politics of feeling safe in global, national and local worlds," Security Dialogue 36, no.3: 275-96.
- Buchan, Gavin. 2010. "Breaking down the Silos: Managing the Whole of Government Effort in Afghanistan," *Canadian Military Journal* 10, no 4: 75-79
- Buzan, Barry and Lene Hansen. *The Evolution of International Security Studies*. 2009. Cambridge: Cambridge University Press.
- Buzan, Barry and Ole Waever. 1997. "Slippery? Contradictory? Sociologically Untenable? The Copenhagen School responds," *Review of International Studies* 23, no.2: 241-50.
- Byers, Michael 2009. Who Owns the Arctic? Vancouver: Douglas & McIntyre.
- Byers, Michael. 2014. *International Law and the Arctic*. Cambridge: Cambridge University Press.
- Byers, Michael and Suzanne Lalonde. "Who Controls the Northwest Passage?" Vanderbilt Journal of Transnational Law 42:4 (2009): 1133-1210.
- Canada. 2009. Canada's Northern Strategy: Our North, Our Heritage, Our Future. Ottawa: Indian and Northern Affairs Canada, http://www.northernstrategy.ca/index-eng.asp.
- Canada. 2014. "Marine Security Operations Centres Project." http://www.msoc-cosm.gc.ca/en/index.page.
- Canadian Defence Academy. http://www.forces.gc.ca/en/training-prof-dev/canadiandefence-academy.page.
- Centre of Excellence in Emergency Preparedness. http://www.ceep.ca/
- Centre for Indigenous Environmental Resources (CIER). 2010. Managing the Risks of Climate Change.
- Christensen, Kyle. 2005. "Arctic Maritime Security and Defence: Canadian Northern Security Opportunities and Challenges," Technical Report TR2005/01. Toronto: Defence R&D Canada.
- Conley, Heather and Kraus, Jamie. 2010. U.S. Strategic Interests in the Arctic An Assessment of Current Challenges and New Opportunities for Cooperation. Washington: Centre for Strategic and International Studies.
- Coppola, Damon. 2011. *Introduction to International Disaster Management*. 2nd ed. Burlington: Butterworth-Heinemann, Elsevier.
- Daveluy, Michelle, Francis Lévesque, and Jenanne Ferguson, eds. Humanizing Security in the Arctic. Edmonton: CCI Press, 2011.
- Davis, Karen, ed. Cultural Intelligence & Leadership: An Introduction for Canadian Forces Leaders. Kingston: Canadian Defence Academy Press, 2009.
- Department of Fisheries and Oceans (DFO). Canadian Coast Guard (CCG). 2014. "Maritime Search and Rescue (SAR) in Canada," National Search and Rescue Program Backgrounder.
- Department of Foreign Affairs and International Trade (DFAIT). 2000. The Northern Dimension of Canada's Foreign Policy.
- DFAIT. 2010. Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy Abroad.
- Department of National Defence (DND). 2000. Arctic Capabilities Study. Director General Strategic Planning.
- DND. 2003. Duty With Honour: The Profession of Arms in Canada. Kingston: Canadian Defence Academy, Canadian Forces Leadership Institute.
- DND. 2005. *Leadership in the Canadian Forces Conceptual Foundations*. Kingston: Canadian Defence Academy, Canadian Forces Leadership Institute.

- DND. 2006. Science and Technology for a Secure Canada. Ottawa: Defence Research and Development Canada.
- DND. 2007. Leadership in the Canadian Forces Leading People. Kingston: Canadian Defence Academy, Canadian Forces Leadership Institute
- DND. 2008a. Canada First Defence Strategy.
- DND. 2008b. Canada Command and United States Northern Command Civil Assistance Plan.
- DND. 2010a. Arctic Integrating Concept. 23 September.
- DND. 2010b. "Arctic Security Working Group an Interface for Whole of Government Approach to Northern Sovereignty and Security." Ottawa: Canada Command.
- DND. 2011a. CDS/DM Directive for the CF/DND in Canada's North, 12 April.
- DND. 2011b. CF Employment and Support Concept for the North, 14 April.
- Dittmann, Major Paul. 2009. "In Defence of Defence: Canadian Arctic Sovereignty and Security." *Journal of Military and Strategic Studies* 11, no.3: 1-77.
- Dodds, Klaus. 2011. "We are a Northern Country: Stephen Harper and the Canadian Arctic." *Polar Record* 47:4: 371-74.
- Dolata, Petra. 2010. "Nordamerikas neue energy frontier: Ressourceninteressen, Integration und indigene Gemeinschaften in der Arktis." ["North America's New 'Energy Frontier': Resource Interests, Integration and Indigenous Communities in the Arctic"]. *Energie und Integration in Nord-und Südamerika*. Ed. Günther Maihold and Jörg Husar. Opladen & Farmingtin Hills, MI: Verlag Barbara Budrich: 107-130
- Dolata, Petra. 2011. "Resource Interests and Indigenous Communities in the US and Canadian Arctic Since the 1970s." *North America in the 21st Century: Tribal, Local, and Global.* Ed. Kerstin Knopf. Trier: Wissenschaftlicher Verlag Trier.
- Dolata, Petra. 2012. "How 'Green' is Canada's Arctic Policy? The Role of the Environment and Environmental Security in the Arctic." *Zeitschrift für Kanada-Studien* 32, no.2: 65-83.
- Dolata, Petra. 2014. "Kanada und die Energieressourcen der Arktis." Zeitschrift für Auβen- und Sicherheitspolitik 7, no.3: 301-310.
- Downie, David L. and Terry Fenge, eds. 2003. Northern Lights Against POPs: Combatting Toxic Threats in the Arctic. Montreal: McGill-Queen's University Press.
- Edwards, M and Langford, J., eds. 2011. "New players, partners and processes: a public sector without boundaries?" *Proceedings of the National Institute for Governance (University of Canberra) and the School of Public Administration (University of Victoria) Symposium.*
- Dykstra, Eelco H. 2003. "Toward an International System Model in Emergency Management: Information, Communications, and Coordination in Emergency Management."
- Emergency Management Act, Statutes of Canada 2007, c. 15.
- Emmerson, Charles. 2010. *The Future History of the Arctic*. New York: Public Affairs.
- Eriksson, J., ed. 2001. Threat Politics: New perspectives on security, risk and crisis management. Aldershot: Ashgate.
- Evalik, Charlie. 2010. "Canadian Sovereignty, the Military and Infrastructure Development in the Inuit Homeland." Kitikmeot Inuit Association Submission to the Senate Standing Committee on National Security and Defence.
- Ford, James and Barry Smit. 2004. "A Framework for Assessing the Vulnerability of Communities in the Canadian Arctic to Risks Associated with Climate Change." *Arctic* 57, no. 4: 389-400.
- Ford, James, Thomas Pearce, Frank Duerden, Chris Furgal and Barry Smit. 2010. "Climate change policy responses for Canada's Inuit population: The importance of and opportunities for adaptation." *Global Environment Change* 20: 177-191.

- Fournier, Stefan. 2012. Getting It Right: Assessing and Building Resilience in Canada's North. Ottawa: Centre for the North.
- Funston, Bernard. 2014. *Emergency Preparedness in Canada's North.* Toronto: Walter and Duncan Gordon Foundation.
- Gizewski, Peter. 2011. "Discovering the Comprehensive Approach." in Security Operations in the 21st Century – Canadian Perspectives on the Comprehensive Approach. Eds. P. Rostek and LCol M. Gizewski. Kingston: Oueen's University.
- Gizewski, Peter. 2012. "Conducting Stability Operations: Utility of the Whole of Government Approach." Presentation to the Kingston Conference on International Security 2012: "International Security in an Age of Austerity."
- Gizewski, Peter and Rostek, LCol Michael. 2009. "The Canada First Defence Strategy: The need for a Comprehensive Approach." In Canada and the Changing Strategic Enfironment: The Canada First Defence Strategy and Beyond. Ed. Phil Orchard. Proceedings of the Annual Conference of the Security and Defence Forum Centres. Vancouver: Centre for International Relations, University of British Columbia.
- Government of Australia. 2004. "Connecting Government: Whole of Government Responses to Australia's Priority Challenges." Australian Public Service Commission/Management Advisory Commission.
- Grant, Shelagh. 2010. Polar Imperative: A History of Arctic Sovereignty in North America. Vancouver: Douglas & McIntyre.
- Gregory R. et al. 2006. "Theoretical Faith and Practical Works: De-Autonomizing and Joining-Up in the New Zealand State Sector." *Autonomy and Regulation: Coping with Agencies in the Modern State*. Cheltenham: Edward Elgar.
- Griffiths, Franklyn, ed. 1992. Arctic Alternatives: Civility or Militarism in the Circumpolar North? Toronto: Science for Peace/Samuel Stevens.
- Griffiths, Franklyn. 2003. "The Shipping News: Canada's Arctic Sovereignty Not on Thinning Ice." *International Journal* 58, no.2: 257-282.
- Griffiths, Franklyn. 2009. "Canadian Arctic Sovereignty: Time to Take Yes for an Answer on the Northwest Passage." in *Northern Exposure: Peoples, Powers and Prospects for Canada's North.* Edited by Frances Abele, Thomas J. Courchene, F. Leslie Seidle and France St-Hilaire. Ottawa: Institute for Research on Public Policy.
- Griffiths, Franklyn, Rob Huebert, and P. Whitney Lackenbauer. 2011. Canada and the Changing Arctic. Sovereignty, Security and Stewardship. Waterloo: Wilfrid Laurier University Press.
- Guindon, Sarah-Maude. 2013. Plan, Prepare and Practice: Getting ready for emergencies in Canada's North. Toronto: Walter and Duncan Gordon Foundation.
- Haftendorn, Helga. 2009. "Arctic Policy for Canada's Tomorrow." International Journal 64, no.4: 1139-46.
- Halligan, John Fiona Buick and Janine O'Flynn. 2011. "Experiments with Joined- up, Horizontal and Whole-of-Government in Anglophone Countries." In *International Handbook on Civil Service Systems*. Ed. Andrew Massey. Cheltenham: Edward Elgar Publishing, 2011.
- Harpviken, Kristian Berg. 2011. "Power Prevails The Failure of Whole-of-Government Approaches in Afghanistan." *Prio Policy Brief* 4.
- Heininen, Lassie and Heather Nichol. 2007. "The Importance of the Northern Dimension Foreign Policies in the Geopolitics of the Circumpolar North." *Geopolitics* 12: 133-65.
- Heininen, Lassi. 2011. Arctic strategies and policies: inventory and comparative study. Rovaniemi: University of Lapland Press.
- Heininen, Lassi and Heather Nicol. 2007. "Security Issues in the Circumpolar North." In *Borders, Borderlands, and Border Security:* North America and the European Union in Comparative Perspective. Ed. Emmanuel Brunet-Jailly. Ottawa: University of Ottawa Press.
- Holtsmark, Sven G. 2009. "Towards Cooperation or Confrontation? Security in the High North." NATO Research Paper. No. 45. Research Division. Rome: NATO Defence College.

- Homer-Dixon, Thomas. 1999. *Environment, Scarcity, and Violence*. New Haven: Princeton University Press.
- Hoogensen Gjørv, Gunhild, Dawn Bazely, Marina Goloviznina, and Andrew Tanentzap, eds. 2014. *Environmental and Human Security in the Arctic*. New York: Routledge.
- Huebert, Rob. 1999. "Canadian Arctic Security Issues: Transformation in the Post-Cold War Era." *International Journal* 54, no.2: 203-229.
- Huebert, Rob. 2001. "Climate Change and Canadian Sovereignty in the Northwest Passage." *Isuma: Canadian Journal of Policy Research* 2, no.4: 86-94.
- Huebert, Rob. 2003. "The Shipping News Part II: How Canada's Arctic Sovereignty is on thinning ice." *International Journal* 58, no.3: 295-308
- Huebert, Rob. 2005. "Renaissance in Canadian Arctic security?" Canadian Military Journal 6, no.4: 17-29.
- Huebert, Rob. 2007. "Canadian Arctic Maritime Security: The Return to Canada's Third Ocean." Canadian Military Journal 8, no.2: 9-16.
- Huebert, Rob. 2008a. "Canadian Arctic Security: Preparing for a Changing Future." *Behind the Headlines* 65, no.4: 14-21.
- Huebert, Rob. 2008b. "Walking and Talking Independence in the Canadian North." In *An Independent Foreign Policy for Canada? Challenges and Choices for the Future*. Ed. Brian Bow and Patrick Lennox. Toronto: University of Toronto Press.
- Huebert, Rob. 2009a. "Science, Cooperation and Conflict in the Polar Region." In *Legacies Of Polar Science: Historical, Legal And Political Reflections On The International Polar Year*. Ed. Jessica Shadian and Monika Tennberg. London: Ashgate.
- Huebert, Rob. 2009b. "Canada and the Changing International Arctic: At the Crossroads of Cooperation and Conflict," in Northern Exposure: Peoples, Powers and Prospects for Canada's North, ed. Frances Abele et al. Ottawa: Institute for Research on Public Policy.
- Huebert, Rob, ed. 2009c. Thawing Ice -- Cold War: Canada's Security, Sovereignty and Environmental Concerns in the Arctic. Winnipeg: University of Manitoba, Bison Paper No. 12.
- Huebert, Rob. 2010a. The Newly Emerging Arctic Security Environment. Calgary: Canadian Defence and Foreign Affairs Institute.
- Huebert, Rob. 2010b. "Cooperation or Conflict in the Arctic." In Changes in the Arctic Environment and the Law of the Sea. Ed. Myron H. Nordquist, John Norton Moore and Thomas H. Heidar. Leiden: Martinus Nijhof.
- Huebert, Rob. 2011b. "Submarines, Oil tankers and Icebreakers: Trying to Understand Canadian Arctic Sovereignty and Security." *International Journal* 66, no.3: 809-824.
- Huebert, Rob. 2013. "Cooperation or Conflict in the New Arctic? Too Simple of a Dichotomy!" In *Environmental Security in the Arctic Ocean* edited by Paul Berkman and Alexander Vylegzhanin. Dordrecht: Springer. 195-204.
- Huebert, Rob, Heather Exner-Pirot, Adam Lajeunese and Jay Gulledge. 2012. Climate Change an International Security: The Arctic as a Bellwether. Washington: Center for Climate and Energy Solutions.
- Huebert, Rob and Brooks B. Yeager. 2008. A New Sea: The Need for a Cooperative Framework for Management and Conservation of the Arctic Marine Environment. Report for WWF.
- Humphry, R. 2000. "Review of the whole of government information technology outsourcing initiative." *AusInfo*, Canberra.
- Hysmans, J. 1998. "Security! What do you mean? From concept to thick signifier." European Journal of International Relations 4, no.2: 226-55.
- Imaituk Inc. 2011. A Matter of Survival: Arctic Communications Infrastructure in the 21st Century. Yellowknife: Canadian Northern Economic Development Agency.
- Indigenous Communities Coordination Taskforce. 2003. "Shared responsibility, shared future', Indigenous whole of government initiative: Commonwealth performance monitoring and evaluation framework. Canberra: ICCT.

- Institute of Public Administration Australia. 2002. Working together integrated governance. Canberra: IPAA National Office.
- Intergovernmental Panel on Climate Change (IPCC). 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation Summary for Policy Makers.
- Inuit Qaujisarvingat/Inuit Knowledge Centre (IQC). 2013. *Nilliajut: Inuit Perspectives on Arctic Security*. Ottawa: Munk-Gordon Security Program and IQC.
- Inuit Circumpolar Council (ICC) (Canada). 2008. The Sea Ice is Our Highway.
- Inuit Tapiriit Kanatami (ITK). 2008. An Integrated Arctic Strategy.
- ITK and ICC (Canada). 2006. Building Inuit Nunaat: The Inuit Action Plan.
- Kikkert, Peter. 2011. "Rising Above the Rhetoric: Northern Voices and the Strengthening of Canada's Capacity to Maintain a Stable Circumpolar World." Northern Review 33: 29-45.
- Kingdon, John W. 1984. *Agendas, Alternatives, and Public Policies*. Boston: Little, Brown.
- Kraska, James. 2009. "International Security and International Law in the Northwest Passage." Vanderbilt Journal of Transnational Law 42: 1109-1132.
- Kraska, James. 2007. "The Law of the Sea Convention and the Northwest Passage." *International Journal of Marine and Coastal Law* 22, no.2: 257-81.
- Krause, Keith, and Michael C. Williams. 1996. "Broadening the agenda of security studies: Politics and methods." *Mershon International Studies Review* 40, no.2: 229-54.
- Kravitz, Meredith and Vanessa Gastaldo. 2013. *Emergency Management in the Arctic: The context explained*. Toronto: Walter and Duncan Gordon Foundation.
- Kreiner, G. 2011. "Organizational Identity Culture's Conceptual Cousin." In *Organizational Culture and Climate*. Eds. N. Ashkanasy, C. Wilderom and M. Peterson. Thousand Oaks, CA: Sage.
- Lackenbauer, P. Whitney. 2005. "The Canadian Rangers: A Postmodern Militia That Works." Canadian Military Journal 6, no.4: 49-60.
- Lackenbauer, P. Whitney. 2009. From Polar Race to Polar Saga: An Integrated Strategy for Canada and the Circumpolar World. Toronto: Canadian International Council.
- Lackenbauer, P. Whitney. 2010. "Mirror Images? Canada, Russia, and the Circumpolar World." *International Journal* 65, no.4: 879-97.
- Lackenbauer, P. Whitney, ed. 2011. Canada and Arctic Sovereignty and Security: Historical Perspectives. Calgary: Centre for Military and Strategic Studies.
- Lackenbauer, P. Whitney. 2013. *The Canadian Rangers: A Living History*. Vancouver: UBC Press.
- Lackenbauer, P. Whitney and Matthew Farish. 2007. "The Cold War on Canadian Soil: Militarizing a Northern Environment." *Environmental History* 12, no.3: 920-50.
- Lackenbauer, P. Whitney and Peter Kikkert. 2010. The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968-1974. Waterloo: Laurier Centre for Military Strategic and Disarmament Studies / WLU Press.
- Lackenbauer, Whitney and Peter Kikkert. 2011. "Building on 'Shifting Sands': The Canadian Armed Forces, Sovereignty and the Arctic, 1968-1972." In Canadian Arctic Sovereignty and Security. Ed. P.W. Lackenbauer. Calgary: Centre for Military and Strategic Studies: 283-308
- Lajeunesse, Adam. 2012. "A New Mediterranean? Arctic Shipping Prospects for the 21st Century." *Journal of Maritime Law and Commerce* 43, no.4: 521-539.
- Lajeunesse, Adam. 2012. "Claiming the Frozen Seas: The Evolution of Canadian Policy in the Arctic Waters." Unpublished Ph.D. dissertation, University of Calgary.
- Lajeunesse, Adam. 2013. "The New Economics of Arctic Oil and Gas."

- American Review of Canadian Studies 43, no.1: 107-122.
- Lalonde, Suzanne. 2004. "Increased Traffic through Canadian Arctic Waters: Canada's State of Readiness." Revue juridique Thémis 38, no.1: 40-124.
- Lalonde, Suzanne. 2007a. "La frontière maritime dans l'archipel arctique : un garde-fou essentiel pour le Canada." *Annuaire français de droit international* 53: 609-639.
- Lalonde, Suzanne. 2007b. "Le passage Nord-Ouest: zone canadienne ou internationale?" *Le Multilatéral* 1, no.2: 1-13.Lalonde, Suzanne. 2008. "Arctic Waters: Cooperation or Conflict?" *Behind the Headlines* 65, no.4: 8-14.
- Lalonde, Suzanne and Frédéric Lasserre. 2013. "The Position of the United States on the Northwest Passage: Is the Fear of a Precedent Warranted?" *Ocean Development and International Law* 44, no.1: 28-72.
- Langford, J and M. Edwards. 2004. "Boundary spanning and public sector reform in Australia and Canada." *Journal of Public Sector Management* 332, no.4: 13-20
- Lasserre, Frédéric, ed. 2010. Passages et mers arctiques: Géopolitique d'une région en mutation. Québec : Presses de l'Université du Québec.
- Lasserre, Frédéric. 2009. "High North Shipping: Myths and Realities." in Security Prospects in the High North: Geostrategic Thaw or Freeze.
 Ed. Sven Holtsmark and Brook A. Smith Windsor. NDC Forum Paper 7. Rome: NATO Defence College: 179-200.
- Lasserre, Frédéric. 2004. "Fonte des glaces arctiques dans le Passage du Nord-Ouest: quel avenir pour la souveraineté canadienne?" *Options Politiques* 25, no.10: 56-61.
- Lasserre, Frédéric. 2001. "Le Passage du Nord-Ouest: une route maritime en devenir?" Revue Internationale et Stratégique 42: 143-160.
- Lasserre, Frédéric. 2004. "Les détroits arctiques canadiens et russes. Souveraineté et développement de nouvelles routes maritimes." Cahiers de géographie du Québec: 48:135.
- Lasserre, Frédéric, Jérome Le Roy, and Richard Garon. 2012. "Is There an Arms Race in the Arctic?," *Journal of Military and Strategic Studies* 14, no.3&4: 1-56.
- Lindquist, E.A., 2001. *Culture, control or capacity? Meeting contemporary horizontal challenges in public sector management.* Victoria: School of Administration, University of Victoria.
- Ling, T. 2002. "Delivering joined up government in the UK: dimensions, issues and problems," *Public Administration* 80, no.4: 615-642.
- Loukacheva, Natalia. 2009. "Nunavut and Canadian Arctic Sovereignty." Journal of Canadian Studies 43, no.2: 82-108.
- Loukacheva, Natalia. 2007. The Arctic Promise: Legal and Political Autonomy of Greenland and Nunavut. Toronto: University of Toronto Press.
- McDorman, Ted. 2009a. "Canada-United State Bilateral Ocean Law Relations in the Arctic." *Southwestern Journal of International Law* 5: 283-300.
- McDorman, Ted. 2009b. Salt Water Neighbours: International Ocean Law Relations Between The United States and Canada. Cambridge: Cambridge University Press.
- McFadden, VAdm Dean. April 28, 2010. "The Evolution of Arctic Security and Defense Policies." Center for Strategic & International Studies Conference, Washington, DC.
- McMahon, Kevin. 1988. Arctic Twilight: Reflections on the Destiny of Canada's Northern Land and People. Toronto: Lorimer.
- McRae, Donald M. 1994-95. "Arctic Sovereignty: Loss by Dereliction?" Northern Perspectives [Canadian Arctic Resources Committee] 22, no.4.
- McRae, Donald M. 2007. "Arctic Sovereignty: What is at Stake?" *Behind the Headlines* 64, no.1: 1-23.

- National Round Table on the Environment and the Economy (NRTEE). 2009. True North: Adapting Infrastructure to Climate Change in Northern Canada. Ottawa: NRTEE.
- National Search and Rescue Secretariat (NSS). 2013. Quadrennial Search and Rescue Review: Report.
- Nicol, Heather. 2010. "Reframing Sovereignty: Indigenous Peoples and Arctic States." *Political Geography* 29, no. 2: 78-80.
- Nicol, Heather. 2102. "Canadian Arctic Security and Climate Change: Where Traditional Security 'Fits." In *What Holds the Arctic Together?* Eds. C. Pelaudeix, Alain Faure and Robert Griffith. Paris: L'Haumattan.
- Nicol, Heather. 2014. "Discourses of Power: Sovereignty and the Canadian Arctic." In A Northern Nation: Canada's Arctic Policies and Strategies. Eds. K. Dodds and M. Nuttall. Edmonton: University of Alberta/CCI Press.
- Nicol, Heather and Lassi Heininen, 2014. "Human security, the Arctic Council and climate change: competition or co-existence?" *Polar Record* 50, no.1: 80-85.
- Northern Communications and Information Systems Working Group (NCISWG). 2011. A Matter of Survival: Arctic Communications Infrastructure in the 21st Century.
- Northwest Territories (NWT). Ministry of Environment and Natural Resources. 2013. NWT Climate Change impacts and Adaptation Report.
- NWT. Municipal and Community Affairs. 2014. *Emergency Preparedness*.
- NWT. Municipal and Community Affairs. 2014. Northwest Territories Hazard Identification Risk Assessment.
- Office of Critical Infrastructure Protection and Emergency Preparedness. 2002. Scoping of Issues Concerning Risk Reduction to All Hazards in Canadian Non-Urban Communities. Ottawa: Minister of Public Works and Government Services.
- Okalik, Paul. 2008. "Arctic Priorities: A Northern Perspective." *Behind the Headlines* 65, no.4: 3-8.
- Østhagen, Andreas. 2014. Coast Guard Collaboration in the Arctic: Canada and Greenland (Denmark). Walter and Duncan Gordon Foundation
- Page, Robert. 1986. Northern Development: The Canadian Dilemma. Toronto: McClelland and Stewart.
- Paparone C. R., R. Anderson and R. McDaniel. 2008. "Where Military Professionalism Meets Complexity Science." Armed Forces and Society 3: 433-449.
- Pearce, Tristan and Barry Smit. 2009. "Inuit vulnerability and adaptive capacity to climate change in Ulukhaktok, Northwest Territories, Canada." *Polar Record* 46, no.237: 157-177.
- Peters, B.G. 1998. "Managing horizontal government: the politics of coordination." Research Paper no. 21, Canadian Centre for Management Development.
- Pharand, Donat. 2007. "Arctic Waters and the Northwest Passage: A Final Revisit." *Ocean Development and International Law* 38, nos. 1&2: 3-69.
- Pharand, Donat. 1988. Canada's Arctic Waters in International Law. Cambridge: Cambridge University.
- Public Health Agency of Canada. 2009. "Mobilizing Intersectoral Action to Promote health: The Case of ACtNowBC."
- Public Safety Canada. 2009. Federal Policy for Emergency Management: Building a Safe and Resilient Canada.
- Public Safety Canada. 2011a. Federal Emergency Response Plan.
- Public Safety Canada. 2011b. National Emergency Response System.
- Public Safety Canada. 2012. All Hazards Risk Assessment Methodology Guidelines 2011–2012.
- Public Safety Canada. 2014. Action Plan for Critical Infrastructure, 2014-2017.

- Public Service Commission of Canada. 2002. Taskforce on the future of the public service: the governance scenario.
- Purver, Ron. 1995. "The Arctic in Canadian Security Policy, 1945 to the Present." In *Canada's International Security Policy*. Eds. David B. Dewitt and David Leyton-Brown. Scarborough, ON: Prentice-Hall.
- Rothwell, Donald R. 1996. *The Polar Region and the Development of International Law*. Cambridge: Cambridge University Press.
- Roussel, Stéphane. 2010. "Continentalisme et nouveau discours sécuritaire: Le Grand Nord assiégé." Dans *Passages et mers arctiques. Géopolitique d'une région en mutation*. Dir. Frédéric Lasserre. Québec: Presses de l'Université du Québec.
- Roussel, Stéphane, Andrea Charron, and Joel Plouffe. 2012. "The Russian Arctic Hegemon: Foreign Policy Implications for Canada." *La politique étrangère canadienne* 18, no.1: 38-50.
- Roussel, Stéphane, and Jean-François Payette. 2011. "The Other Sovereignties: Quebec and the Arctic." *International Journal* 66, no.3: 939-955.
- Royal Canadian Mounted Police (RCMP). 2007. "Canadian Sovereignty in the Arctic. Challenges for the RCMP." Criminal Intelligence Brief.
- RCMP. 2010. "Border Integrity Program." http://www.rcmp-grc.gc.ca/bi-if/index-eng.htm.
- Ross, Caroline. 2009. "Policing in Isolated Communities." *The Gazette* 71, no.1.
- Runnalls, David. 2008. "Arctic Sovereignty and Security in a Climatechanging World." In Securing Canada's Future in a Climate-Changing World. National Round Table on the Environment and the Economy.
- Sabourin, Major Rebecca. 2012. "Lighting the 8th Fire Building Harmony Amongst the Canadian Forces and the Inuit in the Arctic." Toronto: Canadian Forces College, Master of Defence Studies paper.
- Salter, Mark B. "When securitization fails: the hard case of counterterrorism programs." In Securitization Theory: How security problems emerge and dissolve. Ed. Thierry Balzacq. London: Routledge, 2011.
- Scoppio, Grazia, R. Idzenga, and S. Miklas. 2009. Learning together: Lessons on Canadian Forces Skill Sets for Multinational, Inter-agency Operations. Kingston: Canadian Defence Academy.
- Siebert, John. 2010. "Testing 'Whole of Government' in Afghanistan." The Ploughshares Monitor 31, no.2: 19-21.
- Simmons, Annie, Rebecca C. Reynolds and Boyd Swinburn. 2011. "Defining community capacity building: Is it possible?" *Prevention Medicine* 52: 193-199.
- Simon, Mary. 26 July 2007. "Inuit: The Bedrock of Arctic sovereignty." Globe and Mail.
- Simon, Mary. 11 April 2008. "Does Ottawa's northern focus look backwards?" Nunatsiaq News.
- Smircich, Linda, 1985. "Is the concept of culture a paradigm for understanding organizations and ourselves?" *Organizational Culture*. Ed. P.J. Frost et al. Beverly Hills, CA: Sage: 55-72.
- Standing Senate Committee on Fisheries and Oceans (SSCFO). 2008. The Coast Guard in Canada's Arctic: Interim Report.
- Strizel, H. 2007. "Towards a Theory of Securitization: Copenhagen and beyond." *European Journal of International Relations* 13, no.3: 357-83
- Struzik, Ed. 2009. *The Big Thaw: Travels in the Melting North*. Toronto: Wiley.
- Sylves, R.T. and W.L. Waugh. 1996. *Disaster Management in the U.S. and Canada: The Politics, Policymaking, Administration, and Analysis of Emergency Management*. 2nd ed. Springfield, Ill.: Charles C. Thomas.

- Transport Canada. 2010. Guidelines for the Operation of Passenger Vessels in Canadian Arctic Waters. Ottawa: Marine Safety Directorate.
- Transport Canada. 2012. Environmental Response Systems: Managing Canada's Marine Oil Spill Preparedness and Response Regime. TP 14471 E. Ottawa: Marine Safety Directorate.
- Transport Canada. 2014a. "Safety." http://www.tc.gc.ca/eng/safety-menu.htm.
- Transport Canada. 2014b. "Emergency Response Assistance Plans (ERAPs)." http://www.tc.gc.ca/eng/tdg/erap-menu-72.htm.
- Transport Canada. 2014c. "Emergencies and Incident Reporting." https://www.tc.gc.ca/eng/civilaviation/opssvs/emergencies-incidentreporting-menu.htm.
- Treasury Board of Canada Secretariat (TBS). 2014. "Whole-of-government framework." http://www.tbs-sct.gc.ca/ppg-cpr/frame-cadre-eng.aspx
- Trent University, Royal Military College of Canada, and St. Jerome's University. 2014. Whole of Government in the Canadian Arctic The Arctic Security Whole of Government Research Workshop. Kingston, ON. http://post.queensu.ca/~leuprech/Arctic/proc.html.
- United Kingdom. Ministry of Defence. 2006. *The Comprehensive Approach*. Publication No. JDN 4/05. Shrivenham: The Joint Doctrine & Concepts Centre.
- United States Coast Guard (USCG). 2013. Arctic Strategy.
- United States. Department of Defense. 2013. Arctic Strategy.
- United States. Homeland Security. 2013. Federal Emergency
 Management Agency: Comprehensive Preparedness Guide, 2nd ed.
- Vanderzwaag, David, Rob Huebert, and Stacey Ferrara. 2003. "The Arctic Environmental Protection Strategy, Arctic Council and Multilateral Environmental Initiatives: Tinkering while the Arctic Totters." Denver Journal of International Law & Policy, 30, no.2: 131-171
- Waever, Ole, Barry Buzan, and Jaap de Wilde. 1998. Security: A New Framework for Analysis. Boulder: Lynne Rienner.
- Walker, R. 2006. The Professional Development Framework: Generating Effectiveness in Canadian Forces Leadership. Kingston: Canadian Forces Leadership Institute, Canadian Defence Academy.
- Wallace, Ron and P. Whitney Lackenbauer. 2010. "Unstoppable Momentum: The Real Meaning and Value Behind *Operation Nunalivut* 10." Canadian Defence & Foreign Affairs Institute Policy Update Paper.
- Walter & Duncan Gordon Foundation (WDGF). 2011. Rethinking the Top of the World: Arctic Security Public Opinion Survey. Toronto: WDGF-Munk School for Global Affairs Arctic Security Program.
- WDGF. 2014a. National Roundtable on Arctic Emergency Preparedness: Report on Proceedings. Toronto: WDGF.
- WDGF. 2014b. Are We Ready? Emergency Preparedness in Nunavut: Regional Roundtable Report. Toronto: WDGF.
- WDGF. 2014c. Climate Change and Emergency Preparedness in The NWT: Regional Roundtable Report. Toronto: WDGF.
- WDGF. 2014d. Are We Ready? Search and Rescue and Emergency Management in Yukon: Regional Roundtable Report. Toronto: WDGF.
- Wilkins P. "Accountability and Joined-up Government." *Australian Journal of Public Administration* 61:1 (2002).
- Yukon. Department of Community Services. *Emergency Measures Organization*. http://www.community.gov.yk.ca/emo/