





ARCTIC SOVEREIGNTY AND INFORMATION WARFARE: THE NEW BATTLESPACE IN THE NORTH

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Exercise Solo Flight

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Introduction

The Arctic is experiencing a period of intense interest in recent years. The receding ice is presenting new options for trans-ocean shipping, economic development and resource exploration. As the water ways open and make our world a little bit smaller, emerging Arctic nations and traditional Arctic nations area racing to make their claims in the ice and snow.

These claims are not limited to economic ambitions. The open passage ways and the untapped geographic space are also raising intense interest in terms of military potential in the Arctic. The isolated and punishing territory are challenging but also make it the perfect place to hide in plain sight along the border of Canada and the United States. Nations like Russia and China have taken definitive steps to establish a significant presence in the North.¹ A critical piece of this presence is not in the manifestation of soldiers, equipment and infrastructure on the ground but within the information domain as part of strategic information warfare campaigns to influence, affect perceptions and validate realities that support their broader national power agendas.²

These strategies are complex and multidimensional. Their effectiveness depends heavily on emerging information technology and globalization realities that have changed what

¹ Tony Balasevicius, "New Generation War and Its Implications for the Arctic,." *The MacKenzie Institute*. October 11, 2015. http://mackenzieinstitute.com/russias-new-generation-warimplications-arctic/ (accessed May 10, 2018).

² Steven Blank, "Imperial ambitions. Russia's military buildup." *World Affairs Journal*. May/June 2015. LINK (accessed May 13, 2018).

constitutes a battlespace and the overall landscape and understanding of what modern day warfare is. Further, the use of the combination of real military establishments and information warfare campaigns is posing a significant challenge to Canada and other Arctic nations who must decide what actions they will take in the face of emerging threats in this vast northern territory.³

This paper will demonstrate that information warfare is an emerging yet critical form of militarization that is taking place in the North by both Russian and China. This threat, while non-traditional and non-linear in nature, is changing the narrative of the north and must be considered as a credible threat to the understanding of Arctic narratives, the legitimacy of Arctic sovereignty claims and Arctic security.

This paper will first define information warfare and factors influencing changing warfare landscapes. The paper will then explore Russian and China's information warfare campaigns and consider them in context of their impact on Canadian Arctic sovereignty and security and the wider implications across defence alliances and Arctic partners.

Information Technology and Globalization

The landscape of war has changed. War is no longer solely defined by a declaration of intent and traditional battle on set geographical space. War today is facing a unique reality that means it is both undefined by space yet limited by the interconnectedness of our planet. At the heart of this transition are information and communication technology and globalization.

The power to influence, recruit and radicalize beyond geographical space has obliterate traditional geographical boundaries that previously defined and limited engagement in traditional

³ Ibid,.

warfare. Space, time, even language has been transcended by the internet, social media platforms and the emerging importance of imagery and video to define the reality of specific periods in time and space. The information battlespace as a weapon and force multiplier is able to shrink vast geographical space and amplify military effectiveness by evening the playing field against traditional military superpowers by drawing war into the public domain and blurring the definitions of what is war and what is peace.⁴

The inter connectedness of global economies, military alliances and food distribution has at the same time made the world smaller. The globalization of our economies, cultures and engagements have also complicated traditional warfare and raised the importance of information warfare. The interdependence of enemies and allies in our shrinking global village has made the notion of traditional declarations of war unsustainable. This interdependence, along with emerging information platforms, has created the perfect setting for the escalation of informational conflict.

Additionally, globalization also speaks to a shift towards a greater reliance on coalitions which has increased the vulnerabilities of the security postures of all partners to strategic information warfare attacks, giving opponents a disproportionate strategic advantage.⁵

Information Warfare

An early 1996 RAND study⁶ identified "strategic information warfare" as a critical military consideration for the US and other nations. A number of factors were driving the focus

⁴ Roger Molander et al., "Strategic Information Warfare," RAND, 1996

http://www.rand.org/pubs/monograph_reports/MR661.html (accessed March 18, 2017).

⁵ Ibid,.

⁶ Ibid,.

to complex information battlespaces and increasing use of information warfare. These considerations included low entry and sustainment costs, emerging information technology, blurred traditional boundaries between public versus private, warlike versus criminal behavior and geographic boundaries, the expanded role for perception management and poorly understood strategic information warfare vulnerabilities.⁷

Information warfare today is based on saturation and dominance. Matt Lauder, a Defence Scientist with Defence Research and Development Canada, has called the methodology "highly sophisticated, subtle, pervasive and decentralized".⁸ Lauder suggests the actions can sometimes seem disorganized or sloppy but "the ends justify the means because it is all about effects."⁹

Critical to modern information warfare are active measures and military deception nested in reflexive control which is used as a behaviour strategy. Active measures include direct action, psychological coercion, influence operations, propaganda, psychological manipulation, information sabotage and subversion, dis and misinformation, character assassination and smear campaigns. This approach uses both civilian and military assets which include political, economic, legal, social and scientific information delivered through multiple disseminators ranging from official to unofficial. Information and action, covert and overt, all blur together with minimal attribution unless it suits a strategic intent. Most importantly, there are no moral constraints in a strategy where multiple activities are put in play to achieve objectives; ensuring there is never a single point of failure.¹⁰

⁷ Ibid,.

⁸ Matt Lauder. "Glavnny Protivnik." (presentation, Canadian Public Affairs Professional Development Conference, DND, Ottawa, Ontario, April 8, 2017).

⁹ Ibid,.

¹⁰ Peter Pomerantsev, "How Putin is Reinventing Warfare," *Foreign Policy*. May 5, 2014. http://foreignpolicy.com/2014/05/05/how-putin-is-reinventing-warfare/ (Retrieved on May 7, 2018).

Information warfare can appear disorganized or prone to failure because some initiatives fail to launch. But, its success rate is actually grounded in the shear saturation of active measures in play through diverse delivery mechanisms and disseminators. No audience is missed and the volume allows for failures along the way without jeopardizing intended strategic effects. The approach evolves, develops, adapts. Successes are reinforced and failures are abandoned. The speed at which the information warfare model expands, adapts and engages new methods and mediums and lets go of failed measures is central to its success and accelerated by the reality that truth is neither relevant or required to win.

Further, information warfare is about long term commitment to the use of the information domain as an effective operational environment that can shape the battlespace. While various methods and approaches may be discarded, if they are ineffective, the overall approach is always central to both government and military strategy at the highest levels.

Russian in the Arctic

Russia has maintained a focus on the Arctic for both its economic and military value as the water ways have opened up. In recent years, Russia has launched a new Arctic Command, four new Arctic Brigade teams, 14 new operational airports, 16 deep water ports and 40 icebreakers with 11 more being built¹¹. As they have built their conventional warfare capabilities, they have also amped up a strategic information warfare campaign.

Russia's Arctic information campaign is based on three areas of focus: the projection of power, legitimacy and limited sovereignty. The key to the strategy is the militarization of the

¹¹ Robbie Grammer, "Here's What Russia's Military Build-Up in the Arctic Looks Like," *Foreign Policy*. January 25. 2017 http://foreignpolicy.com/2017/01/25/heres-what-russias-military-build-up-in-the-arctic-looks-like-trump-oil-military-high-north-infographic-map/ (accessed May 9, 2018).

Kremlin's foreign policy towards the Arctic with a clear emphasis on confusion of global public opinion.¹² As was predicted by Professor Aleksandr Selidanov, Russia's use of information warfare is a means to "non-traditionally occupy" or "control territory and make use of its resources without the necessity of the victor's physical presence".¹³ While there is no question that Russia has taken actual traditional military actions in the Arctic, the effectiveness of these assets, the greater perception of Russian legitimacy and countering the legitimacy of other Arctic states is where Russian information warfare plays out.

Since 2007, Russia's Ministry of Defense has consistently called for the development of Russian military facilities in the Arctic to meet emerging dangers.¹⁴ These threats are generally vague in nature, but always amplified in official Russian literature.¹⁵ Their purpose is to set the stage for validating the legitimacy of Russian actions and defensive postures. In 2015, Russia amplified national literature with a re-asserted call to be named the sole owner of 463000 square miles of Arctic territory in a renewed petition to the United Nations.¹⁶

These official statements are continuously amplified by a series of active measures including imagery and video manipulation showing what appear to be thousands of Russian soldiers with reindeer, snow machines, aircraft and military installations. The imagery and

¹² Jolant Darkzewska, "The Devil is in the Detail: Information Warfare in the light of Russia's Military Doctrine," *Centre for Eastern Studies*. May 2015. file:///C:/Users/Hope/Desktop/pw_50_ang_the-devil-is-in_net.pdf (accessed May 10, 2018).

¹³ Paul Joyal, "Cyber Threats and Russian Information Warfare," *Jewish Policy Centre*. January 2016. https://www.jewishpolicycenter.org/2015/12/31/russia-information-warfare/# (accessed May 9, 2018).

¹⁴ Pavel Devyatkin, "Russia's Arctic Strategy: Military and Security," February 13, 2018, The Arctic Institute, https://www.thearcticinstitute.org/russias-arctic-military-and-security-part-two/ (accessed May 15, 2018).

¹⁵ Ibid,.

¹⁶ Billy Johnson, "Russian claims 463 000 square miles of arctic territory," Newsweb, August 4, 2015 http://www.newsweek.com/russia-claims-463000-square-miles-arctic-territory-359829 (accessed May 13, 2018).

propaganda videos are consistently reused and/or presented misrepresentations of actual events or deliberate exaggeration of the reality on the ground.¹⁷

In April 2017, a Russian smear campaign against Craig Fleener, the Arctic policy adviser of the government of Alaska, saw Russia media "reinterpret" Fleener's comments at a Russian conference to suggest Fleener thought Alaska would be better off under Russian leadership.¹⁸ Fleener was identified as a United States politician who was at odds with the US narrative on the Arctic. These statements were then picked up by European press agencies before leading to Russian media claims that both Hawaii and Alaska were seeking to separate from the US.

A leading NATO researcher has also warned that Canada should be prepared for Russian interference in the 2019 federal election suggesting it would serve the purpose of helping to destabilize the military alliance and hobble a nation Russia sees as interfering in their European agenda's. While it has been suggested these attempts are not related to the Arctic because of a "spirit of cooperation" between Canada and Russia on this front, Janis Sarts, the director of the NATO Strategic Communications Centre of Excellence has warned that Russian co-operative overtures on the Arctic should not be taken at face value.¹⁹

While these may seem in consequential in consideration of traditional military threats, in the new information warfare domain the cumulative effect of these actions have a distinctive impact on validating Russian claims and legitimizing Russian narratives. In the Arctic Nimmo

¹⁷ Adam MacDonald, "The Militarization of the Arctic: Emerging Reality, Exaggeration, and Distraction," Canadian Military Journal, 2015 http://www.journal.forces.gc.ca/vol15/no3/eng/PDF/CMJ153Ep18.pdf (accessed May 13, 2018).

¹⁸ Jeanette Falsey, "Alaska's Arctic policy advisor falls victim to fake news – in Russia," Anchoage Daily News, April 11, 2017 https://www.adn.com/arctic/2017/04/11/alaskas-arctic-policy-adviser-falls-victim-to-fake-news-in-russia/ (accessed May 11, 2018).

¹⁹ Mike Blanchfield, "NATO researcher warns of Russian interference in 2019 federal election," The National Post, February 27, 2018 http://nationalpost.com/news/politics/nato-researcher-warns-of-russian-interference-in-2019-canadian-election (accessed May 14, 2018).

and Lucas²⁰ argue that Russian disinformation does not aim to inform but to "provoke doubt, disagreement, and ultimately, paralysis." In this context, "Russia has weaponized information, turning the media into an arm of state power projection" and as a result is "destroying the information space with disinformation." The result is a destruction of trust which challenges what Russia sees as the "reality-based political discourse" myth of the democratic West.²¹

China in the Arctic

On January 26, 2018 China issued its new Arctic Policy. The White Paper declared China a "near-Arctic state" and a major stakeholder in Arctic issues. In the publication China emphasized that it would follow all international laws but the paper made it clear that China would use Arctic resources to pursue their nation's interests.²² The January announcement was not a first step by China to enter the Arctic arena rather more like a public coming out. From an information warfare point of view it was setting the margins through a first party validator to an already well established narrative supported by China's "Three Warfares". The same approach China uses to challenge international interpretations in the South China Sea.²³

The Three Warfares model (san zhong zhanfa) was introduced by the Central Military Commission (CMC) in 2003 and acts as the guiding principle for information operations for the

http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm (accessed May 13, 2018). ²³ Nimmo and Lucas, "Information Warfare," November 2015, 4.

²⁰ Ben Nimmo and Edward Lucas, Edward, "Information Warfare: What is it and How to Win It?" *Centre for European Policy Analysis,* November 2015, https://stratcomcoe.org/elucas-bnimmo-cepa-infowar-paper-no1-information-warfare-what-it-and-how-win-it (accessed May 13, 2018).

²¹ Ibid,.

²² The State Council of the People's Republic of China, "The China Arctic Policy," *The State Council of the People's Republic of China*, January 2018

People's Liberation Army (PLA).²⁴ The concept is based on three interwoven strategies which coordinate the use of strategic psychological operations, overt and covert media manipulation and legal warfare intended to manipulate strategies, defense policies and perceptions of target audiences abroad.²⁵ China's information warfare approach in the Arctic is focused on patience and deception with core goals to advance its economic state, maintain national unity, improve technological and military capabilities and increase regional and global influence without fighting or alarming the West.²⁶

China's use of the "near Arctic" descriptor in its White Paper wasn't a random choice of words. It is part of a greater Chinese information warfare technique. China is using the terminology to "build concepts, principles, vocabulary and justification for pursuing its interests."²⁷ For China this language serves as a roadmap that will empower them to claim interests in the Arctic and eventual legitimize historical claims and cultural and civilizational 'contributions'.²⁸

At the same time, China's Central Committee Foreign Propaganda Group (CCFPG) focuses on telling "good Chinese stories" in relation to the Arctic by "borrowing foreign press" through influencing third party media and influencers to tell the Chinese story or by buying advertorial pieces in key outlets like the New York Times or Washington Post.²⁹ Key to this is

²⁴ Michael Raska, "China and the Three Warfares," The Diplomat, December 18, 2015 https://thediplomat.com/2015/12/hybrid-warfare-with-chinese-characteristics-2/ (accessed May 12, 2018).
²⁵ Ibid.

²⁶ Robert Robinson, "China's long con in the Arctic," Macdonald-Laurier Institute, September 2013 file:///C:/Users/Hope/Desktop/Paper/MLIChina'sLongConInTheArctic09-13Draft4-1.pdf (accessed May 10, 2018).

²⁷ Newsham. Grant. "China as a 'near Arctic state' – chutzpah overcoming geography." *Asia Times*. February 2018. http://www.atimes.com/china-near-arctic-state-chutzpah-overcoming-geography/ (accessed May 10, 2018).

²⁸ Ibid,.

²⁹ Anne-Marie Brady, "China's foreign propaganda machine," *The Kissinger Institute on China and the United States*, October 26, 2015, https://www.wilsoncenter.org/article/chinas-foreign-propaganda-machine (accessed May 10, 2018).

the exploitation of the West's information systems and open societal structures that allow China to influence decision making process.

Much like Russia, China's state run media, which are aggressively placing itself in western markets, play a significant part in the distribution of fake news and the countering of western media as fake news. These claims are exploited, amplified and perpetuated by social media campaigns that can be traced back to China's state council information office or CCFPG.³⁰ Unlike Russia that relies on bots or paid troll armies, China's Communist party has raised a troll army of real people, most of them young men, who voluntarily go online as digital warriors and attack China's enemies in strategic social media bombardments for no pay. Their digital engagement following the release of the China's Arctic policy in January was significant and was critical in reinforcing key White Paper themes of legitimacy and necessity.³¹

Chinese information warfare takes a subtle approach and is all about finessing legal, political, diplomacy and economic components of their narrative to validate long term objectives through what appear to be legitimate partnering and development. Roger Robinson of the Macdonald-Laurier Institute refers to China's approach in the Arctic as the "long con", equating China to a conman who makes a large, long term investment of capital, time, and energy to get the "marks" trust in order to get a bigger long term win. ³² Robertson suggests the 2013 decision to grant China observer status to the Arctic Council was an important milestone along China's Arctic information warfare roadmap.

³⁰ Ibid,.

³¹ Fruzina Eordogh, "The Russian Troll Army Isn't the Only One We Need to Worry About," Forbes, April 18, 2018 https://www.forbes.com/sites/fruzsinaeordogh/2018/04/11/the-russian-troll-army-isnt-the-only-one-we-need-to-worry-about/#6f1660182334 (accessed May 16, 2018).

³² Robinson, "China's long con in the Arctic," p. 2.

Canada's Challenge in the Arctic

Canada faces significant challenges in the North. As the 2015 Policy Paper by Adam Lajeunesse suggests, the Canadian Armed Forces (CAF) has had to "narrow its focus" to meet the government's Arctic sovereignty mandate within a limited resource envelope. Critical Arctic procurement, structural development timelines as well as general resource challenges in the CAF as a whole have created significant Arctic sustainment challenges.³³ The incorporation of increasing information warfare techniques by both Russia and China in the Arctic add another challenge to Canada's military engagement in the North.

In spite of these challenges Canada's 2017 Defence Policy Statement³⁴ did not perceive any changes to the Arctic security environment in either threat perceptions or defence requirements. It seemed to echo the March 2016 testimony of the Assistant Chief of Defence Intelligence which reflected the presumption of threat in the Arctic when he said the CAF "do not see a state actor that has both the capability and the intent to harm Canada militarily".³⁵

Despite these claims, Russian and Chinese information warfare campaigns, which are non-traditional, non-linear hybrid threats, challenge Canada's perception of what constitutes a military threat. They also call into question how Canada assesses threats in consideration of nonkinetic indicators and in consideration of the power of information warfare to erode truth and create a battlespace without a single militarized act of war.

³³ Adam Lajeuness. "The Canadian Armed Forces in the Arctic: Purpose Capabilities and Requirements." *Canadian Global Affairs Institute*. May, 2015. http://www.cgai.ca/canadian_armed_forces_in_the_arctic (retrieved May 15, 2018).

 ³⁴ Government of Canada, "Strong, Secure, Engaged: Canada's defence policy," Department of National Defence, 2017 http://publications.gc.ca/site/eng/9.835971/publication.html (accessed May 10, 2018).
 ³⁵ "Canada and the Defence Of North America: NORAD and Aerial Readiness," Report of the Standing

³³ "Canada and the Defence Of North America: NORAD and Aerial Readiness," Report of the Standing Committee on National Defence, September 2016, 42nd Parliament, 1st Session.

The impact on Arctic and Alliance Partners

The same challenge is being faced by other Artic nations and NATO Alliance nations as they grapple with how to deal with Russian and Chinese actions in the Arctic. Information warfare is exploiting the natural openness of democracies and using TV channels, civic groups and NGOs, as well as the funding of political parties and economic actors as weapons in belligerent foreign policy surrounding the Arctic.³⁶

Much of the international response to date has been described as cerebral and cautious with a tendency to focus on factual rebuttals. This approach is ineffective because neither China nor Russia is concerned about winning factual arguments. Their goal is to spread confusion in support of their own national power interests in the Arctic. Further, Jolanta Darkzewska's paper suggests that even if Western audiences only agree to believe there are two sides to an issue like the Arctic narrative then Russia and China have won an important victory.³⁷

A 2017 report by United Kingdom think-tank The Henry Jackson Society has urged NATO to "urgently adopt an Arctic strategy and ensure a common approach to the region's security challenges" suggesting "a more sophisticated assessment of these activities and their implications would aid the development of more effective policies."³⁸

³⁶ Brady, "China's foreign propaganda machine."

³⁷ Darkzewska, "The Devil is in the Detail."

³⁸ Caroline Mortimer, "Russia is building up its Arctic military presence and Nato should be worried, says new report," The Independent, September 7, 2017 https://www.independent.co.uk/news/world/europe/russia-arctic-military-presence-nato-worried-us-report-tensions-north-america-a7934741.html (accessed May 16, 2018).

Conclusion

Information warfare is a critical component of Russian and Chinese actions in the Arctic. The nations have employed strategic, multidimensional campaigns to reinforce their Arctic interests and overall national power agendas. Their approaches are non-linear in nature and employ all forms of manipulation of western open social, democratic and information practices to co-opt narratives and pummel the information domain with false information and misinformation in an attempt to validate and legitimize their Arctic claims.

The release of China's Arctic White Paper and Russia's aggressive engagement on Arctic narratives suggest that while Canada and other Arctic and Alliance nations may not see the Arctic as a setting for traditional warfare a battlespace has been established in the North.

Future considerations for Canada, Arctic and NATO Alliance nations could include consideration of further study in the areas of enhanced data collection and analysis, strategic counter narratives to Russian and Chinese propaganda and the use of micro-narratives to respond to specific local audiences in unique settings. The exploration and possible employment of one or all of these approaches offers some initial steps in considering national and international responses to the many stories inside the narratives³⁹ that are employed in the growing threat of Arctic information warfare.

³⁹ Mark Laity, "Perception Becomes Reality," Crisis Management and Disaster Response Centre of Excellence (Sofia), October 2014, http://cmdrcoe.org/fls/fls/20141024115144_02_ Perceptionbecomesreality_Laity.pdf (accessed May 14, 2018).

Bibliography

- Balasevicius, Tony. Russia's "New Generation War" and Its Implications for the Arctic." *The MacKenzie Institute*. October 11, 2015. http://mackenzieinstitute.com/russias-newgeneration-war-implications-arctic/ (accessed May 10, 2018).
- Blanchfield, Mike. "NATO researcher warns of Russian interference in 2019 federal election." *The National Post*. February 27, 2018 http://nationalpost.com/news/politics/nato-researcher-warns-of-russian-interference-in-2019-canadian-election (accessed May 14, 2018).
- Blank, Steven. "Russia Continues Arctic Militarization." *American Foreign Policy*. March 30, 2018. https://sldinfo.com/2018/03/russia-continues-arctic-militarization/ (accessed May 10, 2018).
- Blank, Steven. "Imperial ambitions. Russia's military buildup." World Affairs Journal. May/June 2015. http://www.worldaffairsjournal.org/article/imperial-ambitions-russia's-military-buildup (accessed May 13, 2018).
- Brady, Anne-Marie. "China's foreign propaganda machine." October 26, 2015. *The Kissinger Institute on China and the United States*. https://www.wilsoncenter.org/article/chinas-foreign-propaganda-machine (accessed May 10, 2018).
- Darkzewska, Jolanta. "The Devil is in the Detail: Information Warfare in the light of Russia's Miltiary Doctrine." *Centre for Eastern Studies*. May 2015. file:///C:/Users/Hope/Desktop/pw_50_ang_the-devil-is-in_net.pdf (accessed May 10, 2018).
- Devyatkin, Pavel. "Russia's Arctic Strategy: Military and Security." *The Arctic Institute*. February 13, 2018. https://www.thearcticinstitute.org/russias-arctic-military-and-security-part-two/ (accessed May 15, 2018).
- Eordogh, Fruzina. "The Russian Troll Army Isn't the Only One We Need to Worry About." Forbes. April 18, 2018 https://www.forbes.com/sites/fruzsinaeordogh/2018/04/11/therussian-troll-army-isnt-the-only-one-we-need-to-worry-about/#6f1660182334 (accessed May 16, 2018).
- Falsey, Jeanette. "Alaska's Arctic policy advisor falls victim to fake news in Russia." *Anchorage Daily News*. April 11, 2017. https://www.adn.com/arctic/2017/04/11/alaskasarctic-policy-adviser-falls-victim-to-fake-news-in-russia/ (accessed May 11, 2018).
- Government of Canada. "Canada and the Defence Of North America: NORAD and Aerial Readiness." Report of the Standing Committee on National Defence. September 2016, 42nd Parliament, 1st Session.

- Government of Canada, "Strong, Secure, Engaged: Canada's defence policy," Department of National Defence, 2017 http://publications.gc.ca/site/eng/9.835971/publication.html (accessed May 10, 2018).
- Grammer, Robbie. "Here's What Russia's Military Build-Up in the Arctic Looks Like." *Foreign Policy*. January 25. 2017 http://foreignpolicy.com/2017/01/25/heres-what-russiasmilitary-build-up-in-the-arctic-looks-like-trump-oil-military-high-north-infographic-map/ (accessed May 9, 2018).
- Jihchange, Lulu. "The Arctic Whitepaper and China's Arctic Strategy." *China Policy Institute*. February 12. 2018. https://cpianalysis.org/2018/02/12/icy-xi-speak-and-northerlyexoprop-the-arctic-white-paper/ (accessed May 10, 2018).
- Johnson, Billy. "Russian claims 463 000 square miles of arctic territory." Newsweb. August 4, 2015. http://www.newsweek.com/russia-claims-463000-square-miles-arctic-territory-359829 (accessed May 13, 2018).
- Koslozski, Robert. "The Information Domain as an Element of National Power." *Centre for Contemporary Conflict*. 2009 http://edocs.nps.edu/npspubs/institutional/newsletters/strategic%20insight/2009/Kozloski Jan09.pdf (accessed May 10, 2018).
- Laity, Mark. "Perception Becomes Reality." Crisis Management and Disaster Response Centre of Excellence (Sofia), October 2014, http://cmdrcoe.org/fls/fls/20141024115144_02_ Perceptionbecomesreality_Laity.pdf (accessed May 15, 2018).
- Lajeuness, Adam. "The Canadian Armed Forces in the Arctic: Purpose Capabilities and Requirements." *Canadian Global Affairs Institute*. May, 2015. http://www.cgai.ca/canadian_armed_forces_in_the_arctic (retrieved May 15, 2018).
- Lauder, Matt. "Glavnny Protivnik." Presentation, Canadian Public Affairs Professional Development Conference, DND, Ottawa, Ontario, April 8, 2017.
- MacDonald, Adam. "The Militarization of the Arctic: Emerging Reality, Exaggeration, and Distraction." *Canadian Military Journal*. 2015 http://www.journal.forces.gc.ca/vol15/no3/eng/PDF/CMJ153Ep18.pdf (accessed May 13, 2018).
- Molander, Roger et al. "Strategic Information Warfare." RAND. 1996. http://www.rand.org/pubs/monograph_reports/MR661.html (Retrieved on May 4, 2018).

- Mortimer, Caroline. "Russia is building up its Arctic military presence and Nato should be worried, says new report." The Independent. September 7, 2017 https://www.independent.co.uk/news/world/europe/russia-arctic-military-presence-natoworried-us-report-tensions-north-america-a7934741.html (accessed May 16, 2018).
- Newsham. Grant. "China as a 'near Arctic state' chutzpah overcoming geography." *Asia Times.* February 2018. http://www.atimes.com/china-near-arctic-state-chutzpahovercoming-geography/ (accessed May 10, 2018).
- Nimmo, Ben and Lucas, Edward. "Information Warfare: What is it and How to Win It?" *Centre for European Policy Analysis*. November 2015. https://stratcomcoe.org/elucas-bnimmo-cepa-infowar-paper-no1-information-warfare-what-it-and-how-win-it (accessed May 13, 2018).
- Pomerantsev, Peter. "How Putin is Reinventing Warfare." Foreign Policy. May 5, 2014. http://foreignpolicy.com/2014/05/05/how-putin-is-reinventing-warfare/ (Retrieved on May 7, 2018).
- Raska, Michael. "China and the Three Warfares." *The Diplomat*. December 18, 2015 https://thediplomat.com/2015/12/hybrid-warfare-with-chinese-characteristics-2/ (accessed May 12, 2018).
- Robinson, Robert. "China's long con in the Arctic." *Macdonald-Laurier Institute*. September 2013. file:///C:/Users/Hope/Desktop/Paper/MLIChina'sLongConInTheArctic09-13Draft4-1.pdf (accessed May 10, 2018).
- The State Council of the People's Republic of China. "The China Arctic Policy." *The State Council of the People's Republic of China*. January 2018. http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm (accessed May 13, 2018).
- Wishnick, Elizabeth. "China's Interests and Goals in the Arctic." *The Letort Papers*. March 2017. file:///C:/Users/Hope/Desktop/PUB1347.pdf