

Russian Air Patrols in the Arctic: Are Long-Range Bomber Patrols a Challenge to Canadian Security and Sovereignty?

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Western, and especially Canadian media reported, especially during the period 2007-2011, a significant number of Russian air patrols in the Arctic. These patrols were often described as potential threats for the Canadian security and sovereignty. However, a comparative analysis of the frequency of Russian air patrols in the Arctic and in other areas of operation attest to the rather low level of activity of the Russian air force. This suggests the narrative about the would-be Russian air threat reflects either misinformation or an oriented political discourse.

The Canadian media reported, especially during the period 2007-2011, a large number of Russian air patrols in the Arctic. The narrative of these reports, as well as of the Canadian government at the time, depicted these patrols as threats to Canadian security and to Canadian sovereignty in the Arctic. How did the level of activity of Russian bombers in the Canadian Arctic compare with other regions, and to what extent did these patrols represent a threat to Canadian sovereignty?

In 2007, Russia resumed bomber patrols in the Arctic after several years of absence following the dissolution of the Soviet Union in 1991. This resumption came around the same time as the flag episode in 2007, when a Russian submarine planted a Russian flag right at the North Pole on the sea floor, thus triggering a storm of outraged comments from Canadian officials. The Russian government readily admitted to the apparent sharp increase in its air patrol activity, explaining that its air force needed training just like any other country. These patrols, it argued, are routine exercises that maintain the readiness of its air force in the area.

Indeed, the resumption of Russian bomber patrols in the Arctic was paralleled by an increase of activity in other areas, notably in the North Atlantic, the Western Pacific, the Black Sea and the Baltic. Activity increased again in 2014, with the advent of the Ukrainian conflict. Yet there remained a certain degree of uncertainty as to what this Russian aggressiveness or assertiveness meant. British Foreign Secretary Philip Hammond said in December 2014 that he was concerned with “the extremely aggressive” probing of Britain’s airspace by Russian military aircraft, after a series of interceptions off the Scottish coast. Hammond had previously said that the sharp

increase in such activity in recent years was because of a Kremlin military overhaul that “had been overlooked by many” (Euronews, 2015).

However, analysis of the Canadian government’s discourse demonstrates that the rhetoric of a threat to Canadian security and sovereignty may not have been justified. The analysis of Russian air patrol patterns close to the Canadian Arctic hints at a low air activity in the Arctic, in contrast to other regions where the Russian air force activity is much more sustained.

Are these Russian air patrols in the Arctic a real threat to Canadian security and sovereignty in the region? Or is it a media fantasy, one which hastily conflated rhetoric triggered by the Russian flag episode with a resumption of Russian military activity, so as to forge an image of a threatening and posturing Russia? In other words, was the discourse about the threat from Russian bomber patrols warranted by the actual levels of air activity, and was this activity comparable or higher than in other regions? An analysis of Russian patrol patterns and comparisons of Russian air patrol activity levels serve as the basis for this analysis.

Russian Air Patrols in the Arctic

In August of 2007, Russia resumed long-range bomber patrols over the Arctic, and on July 14, 2008, the country announced that it would resume surface patrols of Arctic waters with Northern Fleet units (Huebert, 2009; Blank, 2011; Sergunin & Konyshev, 2015). Both of these patrolling activities had been suspended following the conclusion of the Cold War. The bomber patrols were deemed controversial by some Western experts, after patrols approached Canada, Alaska, and the United Kingdom (UK) as well as Norway’s central command at Bodø (Kefferpütz, 2010). Most of these patrols were intercepted, but they often made headlines in Canada and the UK (for instance CNN, 2008; National Post, 2009; Scotsman, 2010; see Lasserre et al., 2013; Landriault, 2013).

Foreign governments, analysts and the media, have, ever since the planting of a Russian flag at the bottom of the Arctic Ocean at the North Pole in 2007, often described Russian maneuvers, discourse, and defense programs as jingoistic, if not as bluntly belligerent (Lasserre et al., 2013). In the frame of this reportedly tension-ridden Arctic region, Russia published a new Arctic Strategy (2008).¹ Several analysts were prompt to underline reportedly bellicose assertions found within this document. James Kraska reported that “in a language reminiscent of the hand-wringing over bipolar measurements concerning the U.S.-Soviet ‘coalition of forces’ in the 1970s, Moscow’s new strategy states that Arctic resources will become the ‘critical point for the world military balance’” (Kraska 2009: 1117). Kimberly Gordy established a link between the Russian planting of a flag at the North Pole in 2007, the sending of bomber patrols towards the Canadian Arctic (“over the Canadian Arctic”, 565, (sic)), and the publication of the Russian Arctic Policy, as proof of Russia’s aggressive posturing and “disregard for Canadian security and environmental interests” (Gordy 2010: 564). In February 2015, Admiral Bill Gortney, Commander of U.S. Northern Command (USNORTHCOM), and North American Aerospace Defense Command (NORAD), said Russian military aircraft have been spotted more frequently, close to U.S. and Canadian territory in the Arctic. “They’ve been very aggressive”, he said, “aggressive in the amount of flights, not aggressive in how they fly” without giving figures (USNI News, 2015) (see Fig. 1, 2).

In this vein, interceptions of Russian long-range bomber patrols in the Arctic have fueled comments from academics (Tayloe, 2015; Lackenbauer & Lajeunesse, 2016) and Canadian officials from 2008 onwards, especially up to 2010 (Genest & Lasserre, 2015). Prime Minister Harper specified in 2008: “We’re concerned about Russia’s testing of Canadian airspace and other indications, and certainly Russian actions in other parts of the world, which may indicate some desire to work outside of the international framework. And that’s obviously why we’re taking a range of measures including military measures to strengthen our sovereignty in the North” (Akin, 2008). Then, in 2009, Harper remarked that “I have expressed [...] the deep concern our government has with increasingly aggressive Russian actions around the globe and Russian intrusions into our airspace.” (CBC News, 2009).

Figure 1: An F-15 Eagle fighter intercepting a Tu-95 bomber near Alaska.



Photo courtesy of NORAD Public Affairs:

www.norad.mil/Newsroom/tabid/3170/Article/578117/norad-intercepts-russian-aircraft.aspx

Figure 2: A CF-18 Hornet fighter intercepting a Tu-95 bomber near the Canadian Arctic coastline.



Source: Canadian Department of National Defense, with permission.

Former Canadian Minister of Defense, Peter MacKay, hinted in 2008 that Russian bomber patrols could infringe on Canadian airspace: “When we see a Russian bear approaching Canadian air space, we meet them with an F-18,” said MacKay, referring to Arctic patrol flights by Russian bombers ‘we remind them that this is Canadian air space, that this is Canadian sovereign air space, and they turn back.’ ” (Vancouver Sun, 2008). In February 2009, the media reported that “two Russian military bombers came close to breaching northern Canadian airspace on the eve of U.S. President Barack Obama’s visit here last week, Defence Minister Peter MacKay revealed” (Chase, 2009).

Peter Mackay again talked in 2010 about Canadian fighter jets that “scrambled ” to intercept and “repel” Russian bombers before they would enter Canadian airspace (Pugliese, 2010). In 2010, after another Russian bomber patrol was intercepted by Canadian fighters, Prime Minister Harper underlined that “Thanks to the rapid response of the Canadian Forces, at no time did the Russian aircraft enter Canadian sovereign airspace”, implying that had Canadian CF-18s not intervened quickly, the Russian bombers would have violated Canadian airspace (Ibbitson, 2010). Later, Defense Minister MacKay admitted that Russian bombers did not enter Canadian airspace: “‘They were in the buffer zone’, said MacKay, stressing that although the planes did not enter Canada’s sovereign airspace, the bombers did come inside the 300 nautical mile zone that Canada claims”² (sic) (Lilley, 2010).

Foreign Affairs Minister Lawrence Cannon underlined that “when an issue of national importance is raised at the Arctic Council, our government does, and always will, stand up for our interests and ownership over the Arctic. This is why we react so strongly when other nations, like Russia, engage in exercises and other activities that appear to challenge our security in the North” (Cannon, 2009).

Did the Russian Patrols Represent Real Threats?

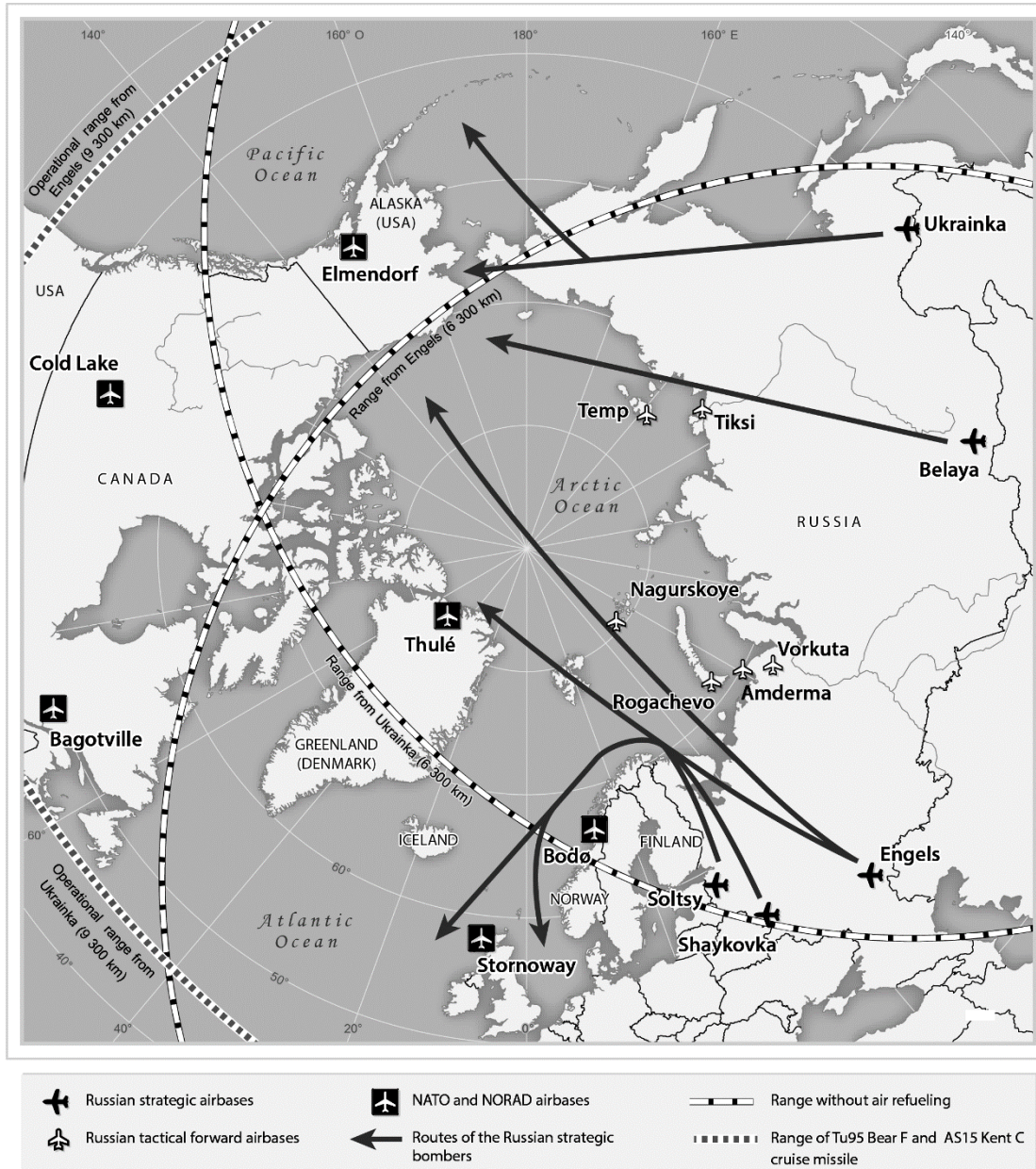
Mostly Tu-95 Bear bombers, and at times Tu-160’s from Russian strategic airbases (Fig. 3), came close to the Canadian Arctic, according to media articles and defense reports (U.S. Northern Command, 2015; Stadnyk, 2015). Russian bomber patrols were depicted by media reports and government declarations as challenges to Canadian sovereignty and security (Genest & Lasserre, 2015).³ Was their behavior typical of a challenging would-be foe?

This willingness to publicize the Russian patrols in the Arctic contrasts with the Canadian government’s historical practice of managing communications regarding the risk of intrusion into the Arctic area (Teeple, 2010). These incidents, true or fantasied, were typically wrapped in secrecy and a desire to not address them publicly. The identification of the nationality of the actor at the source of these actions was also to be avoided (Landriault, 2013). The contrast between the high-profile communications about Russian bomber patrols in recent years, and the secrecy surrounding the other reported cases of intrusion, suggests that there may be a specific communications strategy with respect to these declarations regarding the Russian air threat.

First, most pictures reportedly taken during the interceptions of Russian Tu-95 or Tu-160 bombers by American or Canadian fighter planes show that the Russian planes flew at high altitude (Hickley & Williams, 2007; Baev, 2009; Lasserre et al., 2013) and were thus not trying to evade detection nor interception. Besides, they may have borne no weapons, as all of the pictures depicting interceptions by NORAD planes show the Tu-95 or Tu-160 bearing no missiles on the

wing pods. However, nothing can be said about the bomb bays for both the Tu-95s and the Tu-160s as they were kept closed.

Figure 3: Location of Russian strategic airbases and routes of bomber patrols.



Source: adapted from Le Roy, 2010.

Second, although the increased Russian air and naval activity since 2007 is impressive when compared to the long period of decay in the Russian armed forces following the collapse of the Soviet Union, it is far below the average Cold War levels (Zysk, 2011; Lasserre et al., 2013). The resumption of Arctic patrols may therefore be interpreted more in terms of the desire not to lose operational capacity and, above all, as a political tool designed to display capability, rather than the sign of a renewed aggressiveness in the Arctic (Henrotin, 2011; Zysk, 2011; Konyshev &

Sergunin, 2014; Wilson, Rowe & Blakkisrud, 2014; Roberts, 2010; 2015). NORAD spokesman Lt. Desmond James explained in 2010 that “both Russia and NORAD routinely exercise their capability to operate in the North. These exercises are important to both NORAD and Russia and are not cause for alarm” (*CBC News*, 2010b).

Third, except for a few occasions, Russian bombers fly unescorted by fighter planes, thus being easy targets for intercepting fighter jets from American or Canadian bases. Exceptions may occur, but rarely, as happened on September 18, 2014 (thus after the onset of the Ukrainian crisis), when American F-22s intercepted two Russian Tu-95 bombers, two refueling tankers and two MiG-31 interceptors above the Beaufort Sea. The same day Canadian CF-18 intercepted Tu-95 Bears 75 km off Canada’s Arctic coast (*CBC News*, 2014).

Finally, Defense Minister MacKay’s assertions in 2008 and 2009 about Russian bombers coming close to violating Canadian airspace were questioned by U.S. General Gene Renuart, Commander of U.S. NORTHCOM/North American Aerospace Defence Command (NORAD) from 2007-2010, when he declared in February 2009 that “the Russians have conducted themselves professionally; they have maintained compliance with the international rules of airspace sovereignty and have not entered the internal airspace of either of the countries” (Chase, 2009). It appears that the Canadian jets intercepted the Russian Tu-95 bombers 190 kilometers northeast of Tuktoyaktuk, NWT on Feb. 18th, 2009. They had not entered Canadian airspace but did stray into a zone of international airspace under Canada’s monitoring and control (Chase, 2009). Other media reports and government declarations also underline that the Russian bombers never entered Canadian nor American airspace (Lilley, 2010; *CBC News*, 2010 quoting Defense Minister MacKay himself; Stadnyk, 2015; U.S. Northern Command, 2015).

The buffer zone is an airspace where traffic is monitored; sometimes called the ADIZ (Air Defense Identification Zone), where air traffic is monitored for security objectives but not controlled (Fig. 4). It seems the media often confuse this buffer zone or the ADIZ with the actual sovereign airspace (U.S. Northern Command, 2015), which extends only 12 miles beyond the coast. Russian bombers have been known to enter the Canadian or the American ADIZ, as they extend much farther offshore, or, in Europe, into the “Flight Information Region” (RAF, 2015) or the “area of interest” (Sky News, 2015). “State aircraft of sovereign nations are not required to file flight plans into the ADIZ” (Stadnyk, 2015), thus Russian bomber patrols do not breach any international law. Russia declared they often filed flight plans and thus warned ahead of their coming into the vicinity of Alaska and Arctic Canada. This was however denied by the Canadian government (*CBC News*, 2009).

The 1944 Chicago Convention posits that “the contracting States recognize that every State has complete and exclusive sovereignty over the air-space above its territory” (art. 1); art. 2 adds “For the purposes of this Convention, the territory of a State shall be deemed to be the land areas and territorial waters adjacent thereto under the sovereignty, suzerainty, protection or mandate of such State” (ICAO, 1944; Pépin, 1956) – thus customarily defined as within 12 nautical miles (nm). Despite the fact Art. 3 specifies the Convention is applicable to civil aircraft only, no State challenged the interpretation as to what constitutes the sovereign airspace (Kish & Turns, 1995). Violating the actual airspace with military planes is a serious international offense (actually, an act of war) and it is likely that if the Russian bombers had actually done so, diplomatic language would have been much coarser.

Whereas the Russians seem to have been cautious not to violate sovereign airspace, the very fact of not filing flight plans in advance, a practice now apparently commonplace, is heavily disruptive of civilian air traffic, probably more so in dense European areas than in the Canadian Arctic. Along with scrambling interceptors, controllers neutralise a large portion of airspace to avoid collisions (National Post, 2015; RT News, 2015). When such an operation takes place in the North Sea, or even worse in the English Channel, the delays to civilian flights were numerous.

A Different Pattern in Eastern Europe Since 2014

This behavior near the Canadian and American Arctic, or the North Atlantic, is in sharp contrast to the Russian air forces' behavior close to Japan, or in the Black Sea, or the Baltic Sea, especially since the onset of the political crisis in Ukraine in March 2014. The number of intercepts in the airspace close to Japan are much more numerous (see Table 2), as they are for the European theatres of operation. In Europe, Russian patrols display a larger variety of planes, such as tactical bombers like Su-24 Fencers or Su-25 Frogfoots, along with the strategic long-range bombers witnessed in the Arctic, but also fighter planes like Su-27 Flankers and Su-35 Flankers E or the MiG-29 Fulcrum, either escorting the bombers or flying alone in patrols and obviously carrying weapons, and occasionally briefly violating the actual airspace of Finland or Latvia or Sweden (Aviationist, 2013; Défens-Aéro, 2013; Deutsche Welle, 2014; Libération, 2014), or flying along the limit of a neighbor's airspace in a provocative way (Le Monde, 2015). Similarly, reports hint at the fact that since 2014, Russian bombers have been known to carry ordnance (BarentsObserver, 2015); and that Russian planes often fly with their transponders off or without flight plans (NATO, 2014; Financial Times, 2015; Huberdeau, 2015), something that was never reported about Russian bomber patrols near the North American Arctic. Besides, the different nature of the planes involved is also a clue to the different behavior: a Su-27 fighter jet is a more effective tool to probe reactions and adopt an aggressive behavior than a slow and defenseless Tu-95 bomber.

However, media or research reports are not always clear as to whether they are talking about sovereign airspace violations, or incursions of Russian warplanes into monitored airspace. In Conley and Rohloff (2015), a long paragraph mixes reports of sovereign airspace violations, scrambles to intercept Russian warplanes, and tracking of Russian planes flying into NATO-surveyed airspace, which are three different concepts. For instance, British media accounts mention that Russian warplanes were intercepted in 2010 within the British sovereign airspace: "Eventually the Russians *left* UK airspace and, after four hours, the Tornado crews stood down and returned to Leuchars [airbase]" (STV News, 2010). The webpage also mentions that interceptions "over British airspace" occurred 20 times in 2009; whereas in another account, a spokesperson from the British Ministry of Defense rather mentions that the "Russian military flights have never entered UK sovereign airspace without authorization" (Sky News, 2014).

The crowded airspace, and the common borders of NATO countries with Russia in Eastern Europe, provides for more opportunities for aggressive behavior and airspace violations. For example, military traffic between mainland Russia and the Kaliningrad enclave is authorized and is common practice. It usually uses an authorized corridor in the Lithuanian airspace. Deviations from this corridor, intentional or not, are common.⁴ NATO deploys an air policing mission on a

permanent basis – voluntary member states usually provide a patrol of four fighters in turns. Scrambles to intercept incoming Russian military aircrafts are frequent and the behavior of Russian fighter and fighter-bomber pilots is occasionally described as “aggressive”. It seems that live ammunition is sometimes carried, however with targeting radars switched off. Tension, aggressiveness and airspace violations seem to be a much more common occurrence along Russia’s borders in Eastern Europe, especially since the Ukrainian crisis in 2014, than in the Arctic.

Besides, the Russian authorities assert that there has been a similar increase in NATO air activity in recent years. Russia protested over a reported sharp increase of NATO air patrols close to its borders (WSJ, 2014). “US RC-135 reconnaissance aircraft carry out flights almost daily,” said Col. Gen. Viktor Bondarev, commander-in-chief of the Russian Air Force. “In 2014, more than 140 RC-135 flights have taken place compared to 22 flights in 2013.” Bondarev also said that NATO surveillance flights over the Baltic Sea and the Barents Sea have grown to 8-12 a week, and NATO tactical flights (fighters, tactical bombers) have doubled from 2013 to about 3000 flights (USNI News, 2014).

Russian Warplanes Patrols: A Marginal Phenomenon in the Arctic

Comparing the frequency of Russian bomber patrols approaching North American airspace to that of other airspaces such as Japan’s, Norway’s, or those in Eastern Europe, also helps put the phenomenon into perspective. Of course, there is no official databank for such events and collecting the data to make up a comparison relies on partial data, on figures gathered from governmental reports, on media accounts fueled by government notices, on research reports and on newspaper reports. The image thus drawn should not be interpreted as constituting absolute figures, but rather as a way to compare the magnitude of Russian military planes’ patrols close to different airspaces.

Regehr (2013) reminds us that “U.S. NORAD fighters were scrambled 1518 times between 1989 and 1992; 111 times in Alaska.” 7.3% of these fighter-scrambles were therefore in Alaska. More recent figures show a different picture for the Arctic, with rather low figures of activity, especially when compared to other regions.

We set up an analysis so as to track statistics about the occurrence of Russian air military patrols in the Canadian Arctic, and compare these figures with other areas such as Norway, the North Sea, the Baltics, and the Sea of Japan. This research is exploratory as there is no unified source for such data: some governments regularly publish figures; some occasionally do; some figures are at times made public by military organizations like NORAD or NATO; and some figures are proxies built up from media occurrences when no official figure is to be found. It must thus be emphasized that figures from Tables 1 and 2 are not to be taken as absolute figures, but as orders of magnitude.

What Can be Inferred from this Data?

First, indeed there has been a sudden onset in the occurrence of Russian bomber patrols in the air zones close to Arctic Canada in 2007, after years of little activity in the wake of the collapse of the Cold War. Figures from Huebert, Viel and NORAD all underline this fact (see Table 1), and for 2014, do point to another increase in the occurrence of the phenomenon. It must be

underlined that this renewed activity is not new, but a resumption of something that was routine during the Cold War.

Second, whether from the analysis of media accounts (Viel, 2014) or from official reports in other areas (Table 2), it appears that the intercepts conducted in the North American Arctic are not numerous: the numbers are modest compared to the intercepts routinely performed in the Barents Sea area by the Norwegian Air Force, or in the North Sea by the Royal Air Force, or by the Japanese Air Force, or even generally in the Baltics or the European area. The NORAD/USNORTHCOM Commander Gortney asserted in 2015 that the figures had steeply expanded but did not give any specific numbers (USNI News, 2015). We have found that it went from an average of 5 over the period 2009-2014, to 10 in 2014 (implying a recalculated average of about 4 over the period 2009-2013). It is a significant increase, although remaining at moderate levels, and it remains to be seen how it evolves over time.

Third, the level of activity by the Russian air force is by no means comparable to the level of activity that took place during the Cold War era. In the airspace close to Lithuania, figures for 1992-95 (Table 2) are much larger than the present levels of activity, despite the recent surge in Russian air patrols. Similarly, in the air space around northern Norway, according to official numbers from the Norwegian Joint Command Headquarters, “there had been 43 scrambles and 69 identifications in international air space outside the coast of Norway in 2014. In 2013 there were 41 scrambles and 58 identifications, and in 2012 there were 41 scrambles and 71 identifications. The numbers are considerably lower than during the 1980s, when there could be as many as 500 to 600 identifications per year” (Sergunin, 2015); another figure puts the number of total Norwegian scrambles at 471 in 1984 (Robertson, 1988: 131). Around Japan, global figures for scrambles during the Cold War (depicted as largely implying Soviet warplanes) stood at 798 for 1978, 783 for 1980, 929 for 1982 (*ibid.*) and 944 for 1984 (Nishihara, 1987: 163), again considerably above present-day levels. If Japan’s air force scrambled 943 times in 2014, it is not only to intercept Russian warplanes, but also those of North Korea and China (Japanese Ministry of Defense, 2015; RNZ, 2015).

Fourth, since 2014 and the onset of the Ukrainian crisis, the number of intercepts has increased significantly, but again much more so in Europe (Baltic area, Black Sea area, and to a more limited extent in the North Sea, by the Royal Air Force) than in the Arctic, where there is a definite but modest increase in activity (Table 2).

These figures highlight that the level of military activity near the North American Arctic involving Russian planes is by no means comparable to the level observed in other areas, whether it be the Sea of Japan, the Baltics, the Black Sea, the North Sea or the Barents Sea. The intercepts resumed in 2007 and increased in 2014 as a probable consequence of renewed tension because of the Ukrainian crisis, but the figures do not hint at a real pressure from the Russian air force towards the NORAD area of operations.

Observations: What Threat do These Patrols Imply?

Just as there appears to be a pattern of discourse from the Canadian media regarding the interception of Russian bomber patrols in the Arctic (Landriault, 2013; Genest & Lasserre, 2015), several media articles underlined the Russian decision to open Arctic air force bases from 2012 onwards (Barents Observer, 2013b; CASR, 2014). Canada’s Conservative government

banked once again on numerous bomber patrols in the Summer 2014 in order to renew the idea that Canada's sovereignty was threatened in the Arctic: "We are deeply concerned, and we are determined to promote and defend the sovereignty of Canada in the Arctic" asserted then-Foreign Minister John Baird in August (RT News, 2014).

Table 1: Number of intercepts of Russian warplanes by NATO fighter planes, according to various sources, 1992-2014.

Region and source		1990s						2000s													
		92	93	94	95	96	97	0	1	2	3	4	5	6	7	8	9	10	11	12	13
NORAD Arctic 2007-2010 Peter Mackay	North American Arctic													“NORAD fighters have intercepted between 12 and 18 bombers annually since 2007”							
	Canadian Arctic	5	3	2	0	0	0	0	0	0	1	0	0	1	15	8	16	9	9		
2000-2014 Simon Viel (2014)	North American Arctic												1	4		2	3		1	1	8
	Europe													10	2		2	4	1	1	6
	Baltic																	1		1	11
	Black Sea																		1	1	7
	Japan							2						1		1				1	2
NORAD 2009-2014	North American Arctic															25 intercepts over 2009-2014, 5 on average per year.					10
NORAD 2006-2011	North American Arctic												45 intercepts over 2006-2011, 9 on average per year.								
Alaska 2014-2015 Media sources	Alaska																			4	2

Sources by category:

Peter Mackay: *CBC News* (2010). Russian planes intercepted near N.L. July 30. www.cbc.ca/news/canada/newfoundland-labrador/russian-planes-intercepted-near-n-l-1.971551, a. March 11, 2016. Mr Mackay gives figures for the number of intercepted bombers, not for the occurrence of intercepts, whatever the number of Russian planes in their group, which is the methodological basis for counting for the other figures.

Rob Huebert, Freedom of Information request to the Department of National Defense, Ottawa, 2015.

Simon Viel, 2014. *La couverture médiatique concernant les interceptions d'avions militaires russes près de l'espace aérien de différents pays autour du monde*, unpublished Working paper, Hautes Études internationales, Laval University, Quebec City. Work based on media screening conducted Oct. 2014 - January 2015.

NORAD: *Russia – Long Range Aviation Intercept*. July 5, 2015. Reply to a Freedom of Information request. Peterson AFB, CO, US Northern Command; Regehr 2015 for 2006-2011. Alaska: media screening, December 2015-January 2016.

Table 2: Number of intercepts of Russian warplanes by NATO, Japanese or Western fighter planes, 1992-2015.

Region and Period	1990'									2000'												
	92	93	94	95	96	97	98	99	0	1	2	3	4	7	8	9	10	11	12	13	14	15
Lithuania 1992-2004	2557	2621	133	59	14	10	5	4	8	8	4	3	5									
Baltics by NATO 2013-2015																				30	140	160
Europe by NATO 2013-2015																				180	442	245*
Bulgaria 2007-2014														2 to 3 interceptions per year on average							2 to 3 per week	
Norway 2007-2014														47			36	34	41	41	49	
North Sea, UK intercepts 2010-2015																20	11	10	8		2	18
Japan 2010-2015															193	197	264	247	248	359	473	288

Sources by region:

Lithuania: number of violations of airspace. "Lithuania Concerned Over Russian Air Incursions and Attempts To Divide NATO", 04VILNIUS1353_a, 29 October 2004, cable from the US Embassy in Vilnius, https://wikileaks.org/plusd/cables/04VILNIUS1353_a.html, a. March 2, 2016.

Baltics: Les interceptions d'aéronefs russes sont trois fois plus importantes qu'en 2013. *Défens-Aéro*, Oct. 30, 2014; www.defens-aero.com/2014/10/les-interceptions-d-aeronefs-russes-sont-trois-fois-plus-importantes-qu-en-2013.html, a. Jan. 5, 2016; NATO cites 'unusual' Russian air activity as intercepts rise, *Stars and Stripes*, Oct. 30, 2014, www.stripes.com/news/nato-cites-unusual-russian-air-activity-as-intercepts-rise-1.311104, a. Jan. 6, 2016; NATO interception of Russian planes in Baltics rise, *UPI*, January 11, 2016, www.upi.com/Business_News/Security-Industry/2016/01/11/NATO-interception-of-Russian-planes-in-Baltics-rise/3031452534461/, a. Jan. 19, 2016.

Europe: NATO fighter jets intercept Russian aircraft, *Financial Times*, July 30, 2015, www.ft.com/cms/s/214bf25e-36ca-11e5-b05b-b01debd57852, a. January 6, 2016; media screening; NATO reports surge in jet interceptions as Russia tensions increase, *The Guardian*, August 3, 2015, www.theguardian.com/world/2015/aug/03/military-aircraft-interventions-have-surged-top-gun-but-for-real, a. March 17, 2016.

*: up to July 2015. The wording of the 2015 Report from the Secretary General says “Allied aircraft scrambled over 400 times to intercept Russian aircraft over Europe in 2015”, which is both close to the 2014 figure and not very precise. *The Secretary General's Annual Report 2015*, www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_01/20160128_SG_AnnualReport_2015_en.pdf.

Bulgaria: La Bulgarie doit placer son Armée de l'Air en «état d'alerte» en raison de vols russes, *Défens-Aéro*, April, 2, 2014, www.defens-aero.com/2014/04/la-bulgarie-doit-placer-son-armee-de-l-air-en-etat-d-alerte-en-raison-de-vols-russes.html, a. March 15, 2016; L'Otan a mené 400 interceptions d'avions russes près de l'espace aérien de ses pays membres, *Zone Militaire Opex 360.com*, 20 nov. 2014, www.opex360.com/2014/11/20/lotan-mene-400-interceptions-davions-russes-pres-de-lespace-aerien-de-ses-pays-membres/, a. March 17, 2016.

Norway: 2010-2014 : Norwegian Joint Headquarters, in Russian overflights, http://static.guim.co.uk/nl/1424887084071/Russian-flight-paths_DONE.svg, a. Jan. 6, 2016; Norway to restructure military in response to Russian 'aggression', *The Guardian*, Feb. 25, 2015, www.theguardian.com/world/2015/feb/25/norway-to-restructure-military-in-response-to-russian-aggression, a. Jan. 12, 2016; Sergunin and Konyshov 2015b.

United Kingdom and North Sea : *Number of days QRA launched in response to Russian military aviation*, Written Answers to Questions, 24 January 2013, Parliament of the United Kingdom, London, <http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm130124/text/130124w0001.htm#13012463001994>, a. Jan. 24, 2016; *Scotsman*, 2010. RAF catches Russian bombers in UK airspace, March 24, www.scotsman.com/news/raf-catches-russian-bombers-in-uk-airspace-1-796434, a. Jan. 6, 2016; media screening.

Japan: Joint Staff Press Release, *Statistics on scrambles through fiscal year 2013*, April 23, 2014; *Statistics on scrambles through fiscal year 2014*, May 22, 2015, Ministry of Defense, Tokyo. *Japan Times*, April 23, 2015, www.japantimes.co.jp/news/2016/04/23/national/japan-scrambled-fighters-china-record-571-times-fiscal-2015/#.VyC2.CG0fkY, a. April 26, 2016; *Wall Street Journal*, April 10, 2014, Japan Scrambles More Jets as Regional Tensions Rise, <http://blogs.wsj.com/japanrealtime/2014/04/10/japan-scrambles-more-jets-as-regional-tensions-rise/>, a. March 22, 2016; *Kyodo News*, <http://japanvisitor.blogspot.ca/2009/04/japan-this-week-26-april-2009.html>, a. Jan. 12, 2016.

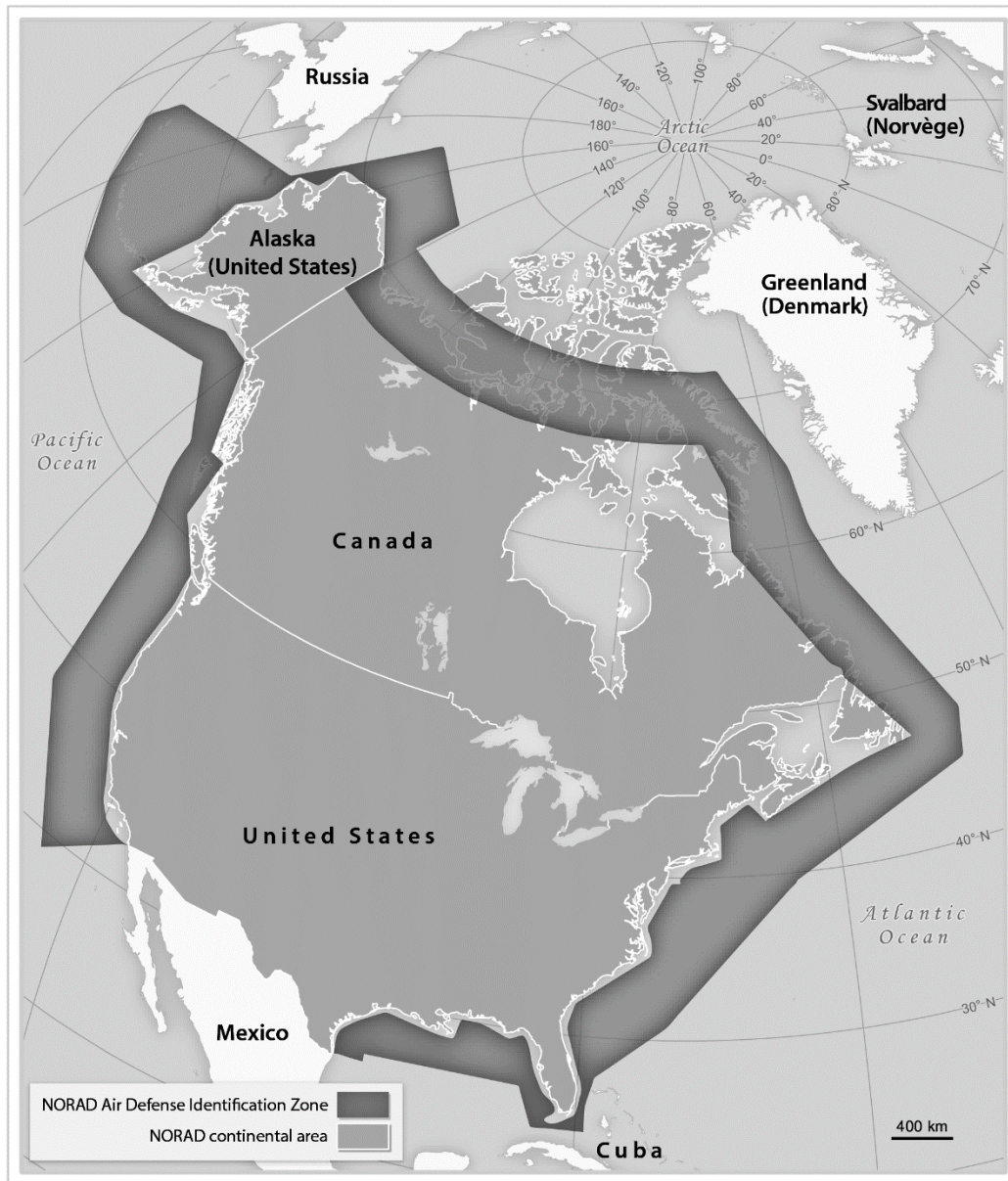
The Russian airbases used for these patrols are usually former bases that were abandoned in the years following the collapse of the Soviet Union in 1991, part of the eleven forward bases the USSR had built in the High Arctic (Åtland, 2011). Moscow does not intend to open new bases but to repair, and make operational, airstrips from these old airbases (*Air International*, 2013) (Fig. 3). The Russian government intended to create a stir when, in September 2012, the media reported that Russia was deploying MiG-31 squadrons to such an airfield in Novaya Zemlya (*Barents Observer*, 2012). However, news quickly emerged that Russia had hesitated because the permanent forward deployment of such planes was likely to be costly (*Barents Observer*, 2013). It is not yet clear if these bases are going to be used year-round.

Regehr hinted in 2013 that a hidden motive of the Canadian fighter dispatches to the Arctic is to wave the flag. He quotes a Canadian Defence Department's description of an April 2006 flight of two CF-18 fighter aircraft dispatched on an Arctic patrol; an objective was for the planes to be seen by as many northerners as possible, and the aircraft were flown over as many settlements as possible (Regehr, 2013). Dispatching powerful fighter jets to fly in Arctic areas was part of the government narrative in defending their decision in favor of the F-35, and in promoting the general idea that the government was strong in the defense of a threatened Canadian sovereignty (Roussel & Perreault, 2009; Lasserre et al., 2013; Regehr, 2013; Genest & Lasserre 2015), as the jets would prove to be "an extremely effective deterrent against challenges to Canadian sovereignty" (Government of Canada, 2010). However, the Canadian ADIZ does not extend over the Canadian Arctic Archipelago (Fig. 4). The official reason for this is that the Canadian ADIZ is part of the continental ADIZ, an "area encircling the continental land mass of Canada and the U.S., established to facilitate NORAD's efforts to monitor the approaches to North America. It is primarily within this zone that the identification, location and control of [...] unauthorized aircraft are performed in the interest of national security" (Duval, 2009). The map however conveys the idea that the threat level for Canadian sovereignty is low. Indeed, there is little air surveillance in this remote part of Canada's territory. The contrast between the light monitoring of military movements over the Canadian archipelago and the strong rhetoric of the need to quickly dispatch powerful fighter jets to defend a much threatened Canadian sovereignty is intriguing.

Notwithstanding Canada's Conservative Prime Minister's, his Foreign Minister's, and his Defense Minister's, energetic promises to stand up to Russian bombers, in 2010 the House of Commons Standing Committee on National Defence underlined in its report on Canada's Arctic Sovereignty that "there is no immediate military threat to Canadian territories either in or 'through' the Arctic" (Parliament of Canada, 2010). In 2011 the Senate Defence Committee came to the same conclusion: "The question remains, is there a military threat to Canada in the Arctic? The consensus of witnesses was that there is not, in the sense of an imminent or even foreseeable peril" (28). The head of the Joint Task Force (North) told the Committee: "There is no conventional threat and therefore we are not arming ourselves in

preparation for an attack from any country. The likelihood of an attack in the High Arctic is as likely as an attack in downtown Toronto” (Senate of Canada, 2011: 28). This analysis was confirmed in 2016 by Rear Admiral Bishop in 2016: “While the geographic and geopolitical landscape is complex and rapidly evolving, there is currently no military threat to Canada in the Arctic” (Standing Committee on National Defence, 2016).

Figure 4: American and Canadian ADIZ under NORAD coordination



Credit: Pierre-Louis Têtu. Sources: United States: <https://www.gpo.gov/fdsys/pkg/CFR-2003-title14-vol2/pdf/CFR-2003-title14-vol2-chapI-subchapF.pdf>; Canada: www.navcanada.ca/EN/products-and-services/Documents/DAH_Current_EN.pdf

The Russians are doing what they have done for decades, and that is flying in international airspace near Canadian and American airspace to show their presence, train their pilots, and test North American reactions. The Canadians and Americans military also “scramble” their fighter jets, displaying Canada’s and the U.S. presence, thus training their own pilots, and testing response times, with a view towards not giving too much information away on their own speed of reaction (Regehr, 2015). A NORAD spokesperson confirmed in fact that while the incidents of flights had indeed increased, they remained “in keeping with the mission of routine training and exercises” (Kreft, 2014; Regehr, 2015), even after the 2014 Ukrainian crisis as most of the increased air activity is taking place in Europe. For the United States, the Arctic is under U.S. NORTHCOM’s area of responsibility but it is not a priority (Charron, 2015). As NORAD underlined in 2010, “both Russia and NORAD routinely exercise their capability to operate in the North. These exercises are important to both NORAD and Russia and are not cause for alarm” (CBC News, 2010b).

Attesting to the low level of threat attached to the Russian bomber patrols close to the NORAD area, a few papers even hint at the idea that the American or Canadian air forces do not even systematically scramble fighter aircrafts to intercept them. In May 2015, a media account mentioned that in 2014, “only 6 out of 10 incursions saw U.S. or Canadian aircraft intercept Moscow’s long-range attack aircraft”. In April 2015, similarly, “two Russian Tu-95 Bear H bombers flew into the U.S. ADIZ, in what was the first such incursions since the beginning of the year: pretty routine, except that no U.S. or Canadian fighter jet were launched to intercept” them (Aviationist, 2015). CNN also mentioned the Pentagon considered the idea of “stopping routine intercepts of Russian military aircraft flying off the coast of Alaska” (CNN, 2015).

Conclusion

Since 2007, with the resumption of Russian air and marine patrols in the Arctic, as well as the planting of a Russian flag at the North Pole, a rigorous rhetoric from the Canadian government emerged through Canada’s national media. The official message emphasized that the presence of these Russian bomber patrols in the Arctic were tantamount to a direct threat to Canadian security and sovereignty. This discourse was all the more credible since other accounts emanating from other regions, especially in Europe, also mentioned an increase in Russian air activity, and in recurrent airspace violations.

It turns out that actual airspace violations are extremely scarce, although their number has increased since the Ukrainian crisis in 2014. Moreover, none took place in the Arctic, but rather in the Sea of Japan or in the Baltics. Since no such violation ever occurred in Canadian airspace, the very notion that Canadian security or sovereignty could be threatened seems quite exaggerated. Besides, the behavior of Russian planes seems much more aggressive in other areas. Finally, the sheer number of interceptions in the North American Arctic is quite small when compared with figures from other areas, especially the Black Sea, the Baltics, the Sea of Japan or even the Barents Sea. If Russia is indeed probing the air

defenses of its neighbors, for political or for military reasons, it is not doing so in the North American Arctic.

Notes

1. Presidential Decree, President Dmitri Medvedev, *Основы государственной политики Российской Федерации в Арктике на период до 2020 года и дальнейшую перспективу* [Fundamentals of the State policy of the Russian Federation in the Arctic in the period up to 2020 and beyond], September 18, 2008, www.scrf.gov.ru/documents/98.html, c. June 8, 2016.
2. Canada never claimed a 300-nautical mile zone.
3. A few media examples: “Harper warns Russians after two bombers intercepted”, *National Post*, Feb. 29, 2009; “‘Back off and stay out of our airspace,’ Russia”, *The Star* (Toronto), Feb. 28, 2009; “Canadian jets repel Russian bombers”, *Toronto Sun*, July 30, 2010. Official declarations include for example: “We react so strongly when other countries show disrespect for our sovereignty over the Arctic” (PM Harper, *CTV News*, August 10, 2007); “I have expressed [...] the deep concern our government has with increasingly aggressive Russian actions around the globe and Russian intrusions into our airspace” (PM Harper, *National Post*, Feb. 28, 2009).
4. Katarzyna Zysk, Senior Analyst and Associate Professor, Department of Norwegian Security Policy, Norwegian Institute for Defence Studies, personal communication, September 5, 2014 in Oslo; Barbro Hugaas, Assistant Director General, Department of Security Policy, Norwegian Ministry of Defence, personal communication, June 6, 2012 in Oslo.

References

- Air International (2013). Russian Bases Upgraded, December, p.19.
- Akin, D. (2008). Harper vows to assert Arctic sovereignty: Economic help promised for North as Russia challenges Canada’s claims, *Times-Colonist*, Victoria, Sept. 21, 2008, p. A7.
- Åtland, K. (2011). Russia’s armed forces and the Arctic: All quiet on the northern front? *Contemporary Security Policy*, 32(2): 267-285.
- Aviationist (2013, June 13). Finland’s airspace violated by Russian bombers. Retrieved from <http://theaviationist.com/2013/06/13/finland-tu-22/>.
- Aviationist, (2015, May 5). Russian bombers intrude into the U.S. air defense zone, no interceptor scrambled after them. Retrieved from <http://theaviationist.com/2015/05/04/russian-tu-95-inside-northamerican-adiz/>.
- Baev, P. (2009). Troublemaking and Risk-taking: the north in Russian Military Activities. In Elana Wilson Rowe (ed.). *Russia and the North* (pp. 17-36). Ottawa: University of Ottawa Press.

- Barents Observer. (2012, September 25). Russia sends Mig-31 interceptors to the Arctic. Retrieved from <http://barentsobserver.com/en/security/russia-sends-mig-31-interceptors-arctic-25-09>.
- Barents Observer. (2013, February 4). Russia drops Arctic air force plans. Retrieved from <http://barentsobserver.com/en/security/2013/02/russia-drops-arctic-air-force-plans-04-02>.
- Barents Observer. (2013b, October 30). Russia re-opens Arctic cold war era air base. <http://barentsobserver.com/en/security/2013/10/russia-re-opens-arctic-cold-war-era-air-base-30-10>.
- Barents Observer. (2015, February 1). Russian bomber intercepted by Norwegian F-16s carried nuclear warhead. Retrieved from <http://barentsobserver.com/en/security/2015/02/russian-bomber-intercepted-norwegian-f-16s-carried-nuclear-warhead-01-02>.
- Cannon, L. (2009, November 23). Address by Minister Cannon to the Economic Club of Canada, No. 2009/58 - Toronto, Ontario - *Government of Canada*. Retrieved from <http://news.gc.ca/web/article-en.do?mthd=tp&crtr.page=94&nid=5099999&crtr.tp1D=970>.
- CASR. (2014, September). Russian military bases in the High Arctic – Re-opening a Cold War- era Airbase on the New Siberian Islands on the Northern Sea Route. *Canadian American Strategic Review*. Retrieved from www.casr.ca/doc-news-new-siberian-islands.htm.
- CBC News. (2009, February 27). Russia denies plane approached Canadian airspace. Retrieved from www.cbc.ca/news/canada/story/2009/02/27/arctic-russia.html.
- CBC News. (2010, July 30). Russian planes intercepted near N.L. Retrieved from www.cbc.ca/news/canada/newfoundland-labrador/russian-planes-intercepted-near-n-l-1.971551.
- CBC News. (2010b, August 25). NORAD downplays Russian bomber interception. Retrieved from www.cbc.ca/news/politics/norad-downplays-russian-bomber-interception-1.929222.
- CBC News. (2014, September 19). Canadian fighter jets intercept Russian bombers in Arctic. Retrieved from www.cbc.ca/news/canada/canadian-fighter-jets-intercept-russian-bombers-in-arctic-1.2772440.
- Chase, S. (2009, February 28). Ottawa rebukes Russia for military flights in Arctic. *The Globe & Mail*. Retrieved from www.theglobeandmail.com/news/national/ottawa-rebukes-russia-for-military-flights-in-arctic/article1154748/.
- Charron, A. (2015). Canada, the Arctic, and NORAD: Status quo or new ball game? *International Journal*. 70(2): 215-231.
- CNN. (2008, March 26). U.S. jets escort Russian bombers off Alaska coast. Retrieved from www.cnn.com/2008/US/03/26/us.russian.planes/index.html?eref=rss_us.
- CNN. (2015, May 6). Pentagon considered stopping intercepts of Russian aircraft. Retrieved from www.cnn.com/2015/05/06/politics/pentagon-intercepts-russian-aircraft/.

- Cohen, A. (2011). Russia in the Arctic: Challenges to U.S. Energy and Geopolitics in the High North. In Blank, S. (ed.), *Russia in the Arctic* (pp. 1-42). Washington, DC: Strategic Studies Institute.
- Conley, H. and C. Rohloff. (2015, August). The New Ice Curtain. Russia's Strategic Reach to the Arctic. *CSIS Reports*. Washington, DC. Retrieved from <http://csis.org/publication/new-ice-curtain>.
- Défens-Aéro (2013, June 13). La Finlande accuse la Russie de violer son espace aérien. Retrieved from www.defens-aero.com/la-finlande-accuse-la-russie-de-violer-son-espace-a%C3%A9rien.
- Deutsche Welle. (2014, September 20). US fighter planes intercept Russian combat jets off Alaska, Sweden protests 'violation.' Retrieved from www.dw.com/en/us-fighter-planes-intercept-russian-combat-jets-off-alaska-sweden-protests-violation/a-17936231.
- Duval, MGen. (2009, April 1). Communication at the Standing Committee on National Defence. Parliament of Canada. Retrieved from www.parl.gc.ca/HousePublications/Publication.aspx?Language=e&Mode=1&Parl=40&Ses=2&DocId=3796236.
- Euronews (2015, January 30). 'Only Russia' dangerously probes British airspace, says source. Retrieved from www.euronews.com/2015/01/30/only-russia-dangerously-probes-british-airspace-says-source/.
- Financial Times. (2015, July 30). NATO fighter jets intercept Russian aircraft. Retrieved from www.ft.com/cms/s/214bf25e-36ca-11e5-b05b-b01debd57852.
- Genest, P. and F. Lasserre. (2015). Souveraineté, sécurité, identité: éléments-clés du discours du gouvernement canadien sur l'Arctique. *Canadian Foreign Policy Journal*. 21(1): 64-84.
- Gordy, K. C. (2010). Dire Straits: The Necessity for Canadian Sovereignty in the Arctic Waterways. *Fordham Environmental Law Review*. 20: 551-596.
- Government of Canada. (2010, July 16). Canada's Next Generation Fighter Capability – The Joint Strike Fighter F-35 Lightning II. National Defence, Ottawa, BG-10.018. Retrieved from <http://news.gc.ca/web/article-eng.do?m=/index&nid=548059>.
- Henrotin, J. (2011, April/May). La dissuasion de Moscou comme manœuvre stratégique. *Défense & Sécurité Internationale*. (Special Issue) n°17.
- Hickley M. and D. Williams. (2007, August 22). RAF fighter jets scrambled to intercept Russian bombers. *Daily Mail*. Retrieved from www.dailymail.co.uk/news/article-476751/RAF-fighter-jets-scrambled-intercept-Russian-bombers.html.
- Huberdeau, E. (2015). Le lent réveil de l'Ours. *Air & Cosmos*. 2467: 16-19.
- Huebert, R. (2009). Canadian Arctic sovereignty and security in a transforming circumpolar world. *Foreign Policy for Canada's Tomorrow*. Issue 4, Canadian International Council.
- Ibbitson, J. (2010, August 25). Harper's Arctic Ice Show: Political Stagecraft Masks Cold Reality, Toronto: *The Globe and Mail*. Retrieved from <http://www.theglobeandmail.com/news/politics/john-ibbitson/harpers-arctic-ice-show-political-stagecraft-masks-cold-reality/article1685471/>.

- ICAO, International Convention on Civil Aviation (1944, December 7). *Convention on International Civil Aviation*, Chicago. Retrieved from www.icao.int/publications/Documents/7300_orig.pdf.
- Japanese Ministry of Defense. (2015, 22 May). Statistics on scrambles through fiscal year 2014. *Joint Staff Press Release*. Tokyo.
- Kefferpütz, R. (2010, February). On thin ice? (Mis)interpreting Russian Policy in the high North, *CEPS Policy Brief* n°205. Centre for European Policy Studies, Brussels.
- Kimberly, G. (2010). Dire Straits: the Necessity for Canadian Sovereignty in the Arctic Waterways, *Fordham Environmental Law Review*. 20: 551-596.
- Kish, J. and D. Turns. (1995). *International law and espionage*. The Hague: Martinus Nijhoff Publishers.
- Konyshov, V. & A. Sergunin (2014). Is Russia a revisionist military power in the Arctic? *Defense Security Analysis*. 30(4):323–335, <http://dx.doi.org/10.1080/14751798.2014.948276>
- Kraska, J. (2009). International Security and International Law in the Northwest Passage. *Vanderbilt Journal of Transnat'l Law*. 42: 1109-1132.
- Kreft, E. (2014, August 7). NORAD Confirms 'Spike in Activity' Regarding Russian Bombers and US Air Defence Zones. *The Blaze*. Retrieved from www.theblaze.com/stories/2014/08/07/norad-confirms-spike-in-activity-regarding-russian-bombers-and-u-s-air-defense-zones-guess-how-close-theyre-coming/.
- Lackenbauer, P. W. and A. Lajeunesse (2016). The Canadian Armed Forces in the Arctic: building appropriate capabilities. *Journal of Military and Strategic Studies*. 16(4): 7-66.
- Landriault, M. (2013). *La sécurité arctique 2000-2010: une décennie turbulente?* PhD thesis in Political Science, University of Ottawa. Retrieved from https://www.ruor.uottawa.ca/bitstream/10393/24353/1/Landriault_Mathieu_2013_these.pdf.
- Lasserre, F., J. Le Roy and R. Garon. (2013). Is there an arms race in the Arctic?, *Journal of Military and Strategic Studies*. 14(3-4): 1-15.
- Le Monde (2015, February 8). Les provocations calculées des vols militaires russes. P.3.
- Le Roy, J. (2010). L'activisme militaire russe dans l'Arctique: nouvelle guerre froide ou volonté d'exister?. In F. Lasserre (ed.). *Passages et mers arctiques. Géopolitique d'une région en mutation* (pp. 99-118). Québec, Presses de l'Université du Québec.
- Libération. (2014, August 28). La Russie viole trois fois l'espace aérien finlandais en six jours. Retrieved from www.liberation.fr/planete/2014/08/28/la-russie-viole-trois-fois-l-espace-aerien-finlandais-en-six-jours 1088848.
- Lilley, B. (2010, July 30). Canadian jets repel Russian bombers. *Toronto Sun*. Retrieved from www.torontosun.com/news/canada/2010/07/30/14874221.html.
- McDermot, R. (2013, December 3). Russian Airpower Skydives to New Depths. *Eurasia Daily Monitor* 10(216). *Jamestown Foundation*. [www.jamestown.org/single/?tx_ttnews\[tt_news\]=41709&no_cache=1#.Vzx3seSnyaQ](http://www.jamestown.org/single/?tx_ttnews[tt_news]=41709&no_cache=1#.Vzx3seSnyaQ).

- National Post. (2009, February 28). Harper warns Russians after two bombers intercepted. www.nationalpost.com/most-popular/story.html?id=1335735.
- National Post (2015, March 3). Commercial planes forced to dodge 'cloaked' Russian bombers flying in Irish airspace: report. Retrieved from <http://news.nationalpost.com/news/world/commercial-planes-forced-to-dodge-cloaked-russian-bombers-flying-in-irish-airspace-report>.
- NATO. (2014, 29 October). NATO tracks large-scale Russian air activity in Europe. www.nato.int/cps/en/natohq/news_114274.htm.
- Nishihara, M. (1987). The Security of North-East Asia (Part I). In R. O'Neill, R. (ed.). *East Asia, the West and International Security* (pp. 161-171). London: Macmillan and International Institute for Strategic Studies.
- Parliament of Canada. (2010, June). Canada's Arctic Sovereignty. 40th Parliament (3rd Session). Retrieved from www.parl.gc.ca/HousePublications/Publication.aspx?Language=E&Mode=1&Parl=40&Ses=3&DocId=4486644&File=21.
- Pepin, E. (1956). Legal Status of the Airspace in the Light of Progress in Aviation and Astronautics. *McGill Law Journal*. 3(1): 70-77.
- Pugliese, D. (2010, September 5). Russian Planes Don't Often Fly Into Canadian Territory: Documents, Ottawa: *Ottawa Citizen*. Retrieved from www.ottawacitizen.com/technology/Russian+planes+often+into+Canadian+territory+Documents/3480401/story.html.
- RAF (Royal Air Force) (2015, January 29). Fighters Scrambled. Jan. 29. Retrieved from www.raf.mod.uk/news/archive/fighters-scrambled-29012015.
- Regehr, E. (2013, May 14). Fighter aircraft and Arctic sovereignty. Disarming Arctic Security. *The Simons Foundation*. Retrieved from www.thesimonsfoundation.ca/sites/all/files/Fighter%20aircraft%20and%20Arctic%20sovereignty%20-%20DAS,%20May%2014%202013_0.pdf.
- Regehr, E. (2015, June 18). Fighter Aircraft (2): Defence at Home and Abroad. Disarming Arctic Security. *The Simons Foundation*. Retrieved from www.thesimonsfoundation.ca/sites/all/files/Fighter%20Aircraft%20%282%29%20-%20Defence%20at%20Home%20and%20Abroad%20-%20DAS,%20June%2018%202015_1.pdf.
- RNZ (Radio New Zealand) (2015, April 16). Japan's jets fend off foreign aircraft. Retrieved from www.radionz.co.nz/news/world/271388/japan's-jets-fend-off-foreign-aircraft.
- Roberts, K. (2010). Jets, Flags, and a New Cold War?: Demystifying Russia's Arctic Intentions. *International Journal*. 65(4): 957-976.
- Roberts, K. (2015) Why Russia will play by the rules in the Arctic. *Canadian Foreign Policy Journal*. 21(2): 112-128.
- Robertson, M. (1988). *Soviet Policy Towards Japan: An Analysis of Trends in the 1970s and 1980s*. Cambridge, U.K.: Cambridge University Press.

- Roussel, S. & F. Perreault. (2009). Le retour du Canada dans l'Arctique ou le parfait alignement des logiques stratégiques, politiques et idéologiques. In M. Fahmy (dir.). *L'état du Québec 2009* (pp. 574-579). Montréal: Fidès.
- RT News. (2014, August 27). Canada to Russia: 'We will defend our sovereignty in the Arctic'. Retrieved from <https://www.rt.com/news/182992-canada-sovereignty-arctic-russia/>.
- RT News. (2015, March 4). Russian bombers disrupted commercial airline flights – Irish authorities. Retrieved from <https://www.rt.com/news/237533-russian-bombers-ireland-disruption/>.
- Scotsman. (2010, March 24). RAF catches Russian bombers in UK airspace. www.scotsman.com/news/raf-catches-russian-bombers-in-uk-airspace-1-796434.
- Senate of Canada. (2011, March). Sovereignty and Security in Canada's Arctic: Interim Report. *Standing Senate Committee on National Security and Defence*. Ottawa. Retrieved from www.parl.gc.ca/Content/SEN/Committee/403/defe/rep/rep07mar11-e.pdf.
- Sergunin, A., (2015, September 21). Russia and the U.S. in the Arctic: A New Confrontation or Damage Limitation? *Valdai Discussion Club*. Retrieved from <http://valdaiclub.com/opinion/highlights/RussiaandtheUSintheArcticANewConfrontationorDamageLimitation/>.
- Sergunin, A. and V. Konyshchev (2015). *Russia in the Arctic: Hard Or Soft Power?* New York: Columbia University Press.
- Sergunin, A. and V. Konyshchev (2015b). Russian Military Activities in the Arctic: Myths & Realities. Commentary. In L. Heininen, H. Exner-Pirot and J. Plouffe (eds.) *Arctic Yearbook 2015* (pp. 404-407). Akureyri, Iceland. Northern Research Forum. Retrieved from <https://www.joomag.com/magazine/arctic-yearbook-2015/0357456001446028961?short>.
- Sky News (2014, April 24). RAF Jet Chases Russian Planes Away From UK. Retrieved from <http://news.sky.com/story/1247985/raf-jet-chases-russian-planes-away-from-uk>.
- Sky News 2015 (September 11). RAF Intercepts Russian Jets Near UK Airspace. Retrieved from <http://news.sky.com/story/1550997/raf-intercepts-russian-jets-near-uk-airspace>.
- Stadnyk, J. (2015, November 9). Major, Public Affairs Advisor to the NORAD Deputy Commander NORAD and USNORTHCOM. Personal Communication.
- Standing Committee on National Defence. (2016, March 22). Audition of RAdm Scott Bishop (Director General, International Security Policy, Department of National Defence). Retrieved from www.parl.gc.ca/HousePublications/Publication.aspx?Language=e&Mode=1&Parl=42&Ses=1&DocId=8166596.
- STV News. (2010, n/a). RAF Leuchars jets intercept Russian bombers near Stornoway, <http://news.stv.tv/highlands-islands/165643-raf-leuchars-jets-intercept-russian-bombers-naer-stornoway/>.

- Tayloe, S. (2015). Projecting power in the Arctic: the Russian scramble for energy, power, and prestige in the High North. *Pepperdine Policy Rev.* 8(1). Retrieved from <http://digitalcommons.pepperdine.edu/ppr/vol8/iss1/4>.
- Teeple, N. (2010, Winter). A Brief History of Intrusions into the Canadian Arctic. *Canadian Army Journal*. 12(3): 45-68.
- U.S. Northern Command. (2015, July 5). Russia – Long Range Aviation Intercept. Reply to a Freedom of Information request. Peterson AFB, CO.
- USNI News. (2014, December 17). Russian Air Force Chief: U.S. Surveillance Flights Monitor Russia Daily. Retrieved from <http://news.usni.org/2014/12/17/russian-air-force-chief-u-s-surveillance-flights-monitor-russia-daily>.
- USNI News. (2015, February 10). West: NORAD Head Says Russia Increasing Arctic Long Range Air Patrols. Retrieved from <http://news.usni.org/2015/02/10/west-norad-head-says-russia-increasing-arctic-long-range-air-patrols>.
- Vancouver Sun. (2008, August 19). Canada to keep watch on Russia's Arctic activities. www.canada.com/vancouversun/story.html?id=a1f76815-b29e-492a-850b-b95bdd75492e.
- WSJ – Wall Street Journal (2014, December 24). Russia Denounces Increased NATO Air Patrols. Retrieved from www.wsj.com/articles/russia-denounces-increased-nato-air-patrols-1419446913.
- Wilson Rowe, E. & H. Blakkisrud. (2014) A New Kind of Arctic Power? Russia's Policy Discourses and Diplomatic Practices in the Circumpolar North. *Geopolitics*. 19(1): 66-85.
- Zysk, K. (2011, July). The Evolving Arctic Security environment: an assessment. In S. Blank (ed.). *Russia in the Arctic. Strategic Studies Institute Monograph* (pp. 91-141). Retrieved from www.strategicstudiesinstitute.army.mil/pdffiles/PUB1073.pdf.
- Zysk, K. (2011b). Military Aspects of Russia's Arctic Policy: Hard Power and Natural Resources. In J. Kraska (ed.), *Arctic Security in an Age of Climate Change* (pp. 85-107). Cambridge: Cambridge University Press.