The Standing Committee on Foreign Affairs and International Development is undertaking a study on Canadian sovereignty in the Arctic, including Russian militarization of its northern territories, China's plans to develop a Polar Silk Road and decisions that will be issued on the continental shelf based on the United Nations Convention on the Law of the Sea.

Report submitted to the Standing Committee on Foreign Affairs and International Development

The Influence of Russian and Chinese Strategies on Issues in Canadian Sovereignty in the Arctic

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The issue of Canadian sovereignty is not breaking news. It was a preoccupation of the Canadian government even before the 1950s, following the significant deployment of US troops and logistical resources in the Boreal and Arctic zones during the Second World War and then again in the construction of the Distant Early Warning (DEW) Line in the 1950s (Lasserre 2010; Lajeunesse 2016). The Canadian government had to set out a policy to defend its specific positions, including sovereignty over the Northwest Passage in the face of, but basically at odds with, a non-hostile US ally as well as fairly sensitive public opinion when strong reactions sometimes took the government by surprise, particularly during the Northwest Passage transit of the *Manhattan* (1969) and the *Polar Sea* (1985) (Lajeunesse 2016, Burke 2018).

Although briefly forgotten following the Canadian marine's abandonment of the plan to purchase nuclear submarines and the settlement of the dispute with Washington with the Canada-US Agreement on Arctic Cooperation signed in 1988, the issue of Canadian sovereignty has become news again with the visible impact of climate change on the rapidly melting polar icecap and the question of potential development and control of commercial transit through the Northwest Passage (Huebert 2001, 2011), even though this disconcerting analysis is not shared by all analysts (Griffiths 2003). In fact, as long as commercial transit traffic remained nil or very light, the political issue of its control and

thus the status of the Northwest Passage (NWP), was minor. With the potential development of maritime traffic, the possibility of reconsidering Canada's position on the NWP is back even if maritime traffic does not seem to be taking that route.

In the context of climate change, the idea of a possible push to the Arctic has since developed in Canada and been supported by political analysts (Borgerson 2008, 2009), which will again raise the question of Canadian sovereignty over its Arctic space (Huebert 2005; Byers 2010). The idea of needing to counter constant, insidious pressure on Canadian sovereignty over its Arctic space, largely backed by Prime Minister Stephen Harper's slogan "Use it or lose it" is, however, politically and legally disputable (Bartenstein 2010). The disputable nature of this slogan is undoubtedly what led the Conservative government to moderate its use in the legislature in the last few years.

There have been several variations on this idea of a threat to Canadian sovereignty since it re-emerged. Added to the possible US relaunch of the dispute of Canadian sovereignty over the NWP are concerns over the potential impact of Russian rearmament in its Arctic space, or the emergence of China's interest in this region, or the perpetual Canadian claim of an extended continental shelf in the Arctic Ocean, almost submitted in 2013 but held back *in extremis* for review by the Harper government in December 2013.

These questions are certainly relevant. To what extent do they impact the soundness of Canadian claims?

1. Is Russian military policy a threat to Canada in the Arctic?

1.1. Development of the idea of Russia's aggressive rearmament in the Arctic.

Russia has been pursuing a policy reaffirming its interests and military presence in the Arctic since 2007. Combined with an actual decline in diplomatic relations between Moscow and NATO countries following the 2014 Ukraine crisis, a real increase in Russian military activity in the Baltic and Scandinavian countries (more on this later), Russian military deployment in Syria (2015), proliferation of cyberattacks frequently attributed to Russian hackers, or the attempted assassination of former Russian spy Sergei Skripal on British territory in March 2018, this Russian policy in the Arctic aroused several reactions in political circles and the media as well as in the university community, with several interpreting this policy as a threat to Canada's security and sovereignty in the Arctic.

First of all, as reprehensible as the annexation of Crimea and the probable role of Moscow in the war in eastern Ukraine, cyberattacks (if they were actually backed by the Russian government) or the attempted assassination of former Russian spy Sergei Skripal on British soil may be, these actions, like the Russian intervention in Syria or the recurrence of Russian military activity in the Baltic region, have nothing to do with the Arctic and should not be confused with the issue.

Secondly, until the Russian flag was planted on the seabed at the North Pole in August 2007, an action that had no legal repercussions but aroused a very strong reaction from then-Foreign Affairs Minister Peter MacKay¹, Canada-Russia relations on Arctic matters could be described as cordial, even cooperative, because of the convergent points of view on the matter of Arctic passage. Just as Ottawa claimed Canadian sovereignty over the NWP, Moscow claimed sovereignty over several segments of the Northeast Passage and had every intention of controlling the movement of all ships on the Northern Sea Route, and the two governments were constantly confronted with disputes from the US. This convergence of Russian and Canadian interests on the matter of Arctic passages was highlighted in 2004 by several diplomatic visits, including those of Canadian Foreign Affairs Minister Bill Graham in 2002, Prime Minister Paul Martin in 2004 and Bill Graham again in 2005, as Minister of Defence (Lasserre 2017).

Nevertheless, Russia resumed long-range bomber patrol across the Arctic Basin in 2007, and maritime patrol in 2008, several years after the economic and financial slump and the fall of the USSR. Russia's clear will to regain military might by defending a zone defined as strategic emerged in the Arctic Strategy (2008)². President Putin also described the Arctic in 2004 as a "disputed territory, rich in natural resources", where "a serious fight of interests between rivals' is taking place"³, and promised an unprecedented rearmament program for Russia on February 20, 2012⁴. This concern for a consequential military rearmament led to the 2007 announcement by Russian senior marine officials of their objective to procure five or six aircraft carriers between then and 2025, as well as 2060⁵. It was an untenable objective, and the staff had to acknowledge subsequently that it had neither the construction capacity nor the finances for so many aircraft carrier battle groups (Lasserre et al, 2012).

Since then, the media have regularly reported on this Russian military reinvestment, particularly in the Arctic, revolving around the following:

¹ Reacting to this action and the bravado of Mr Chiligarov, a Russian expedition official who stated that "the Arctic is Russian" (*The Guardian*, August 2, 2007), Mr MacKay apparently replied by stating that "This isn't the 15th century. You can't go around the world and just plant flags and say: 'We're claiming this territory' ". However, he immediately carried on, in a sentence clearly less often cited by the media, "There is no threat to Canadian sovereignty in the Arctic ... we're not at all concerned about this mission — basically it's just a show by Russia," (UK Reuters, August 2, 2017, https://uk.reuters.com/article/uk-russia-arctic-canada-

idUKN0246498520070802).

² 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 2008, http://government.ru/info/18359/

³ *Izvestia*, September 27, 2004, cited by Zysk, K. (2008). Russian Military Power and the Arctic, *EU-Russia Center Review*, 8, p.84.

⁴ Poutine promised an "unprecedented" Russian rearmament. Mer & Marine, March 5, 2012.

⁵ Russia plans to deploy six carrier battlegroups by 2025, *Defense Update*, July 15, 2007; Russia to have 5-6 aircraft carriers by 2060 – Navy commander, *RIA Novosti*, April 4, 2008.

- The Russian marine has launched several new surface units such as submarines and will continue to receive large numbers of them over the next few years⁶.
- Russia has developed several new Arctic military bases, with strong logistic support: "In recent years [sic], Russia unveiled a new Arctic command, four new Arctic brigade combat teams, 14 new operational airfields, 16 deepwater ports, and 40 icebreakers with an additional 11 in development" (Gramer 2017). Maps identifying all of the Russian bases in the Arctic are frequently mobilized to emphasize the extent of Russian reinvestment and, on the other hand, the dispersion of Canadian and American bases in the Arctic⁷.
- The Russian army has modernized its Arctic unit equipment, particularly by integrating new T-80BVM battle tanks and new ground-air missiles⁸. These air defence batteries were notably deployed at new Arctic bases⁹.
- The Russian army deployed guided missiles in the Arctic zone. A demonstration was organized, obviously for the benefit of the media, since videos were filmed from all angles and quickly broadcast over the internet¹⁰.

1.2. From the dream of Russian military grandeur to reality

1.2.1 What fleet renewal?

If the Russian government truly regrets the powerful Soviet past and regularly reaffirms that we should include Russia (Giusti and Penkova, 2008), this is attested by the Russian Admiralty's dream to have five carrier groups by 2025, and again in 2060, before abandoning the project for a more modest option of one new aircraft carrier (Samus 2018).

These ups and downs reveal the dynamics of the Russian marine and Arctic rearmament: the real political will to curb the decline of military apparatus, as opposed to the hard reality of public finances and loss of know-how in the Russian naval shipyards.

Thus, in 2013, there was no longer talk of anything but a single new aircraft carrier in the foreseeable future, the 100,000-t *Shtorm*, which was to be launched in 2025; this project was subsequently abandoned in 2015 for a more modest, 70,000-t project which is scheduled to be completed in 10 years' time, not before 2025. Motorization issues with the

⁶ *Sputnik*, La Marine russe sera dotée de près de 50 nouveaux bâtiments d'ici 2020, March 31, 2018, https://fr.sputniknews.com/international/201803311035743268-marine-russe-nouveaux-navires/

⁷ Including Gramer (op. cit) and particularly the one published by Business Insider and widely disseminated over the Internet since then: M. Nudelman and J. Bender, This map shows Russia's dominant militarization of the Arctic, *Business Insider*, August 7, 2015, https://www.businessinsider.com/chart-of-russias-militarization-of-arctic-2015-8

⁸ Sukhankin, S. (2018). Russia's Push for Militarization of the Arctic Continues, June 18, *Eurasia Daily Monitor* 15(93).

⁹ Korpela, A. (2016). Of Fire and Ice: Russia's Militarization of the Arctic. NAOCC, NATO Association of Canada, February 4, http://natoassociation.ca/of-fire-and-ice-russias-militarization-of-the-arctic/

¹⁰ For example, *Euronews*, Watch: Russian military tests newly deployed coastal defence system in Arctic, September 26, 2018, https://www.euronews.com/2018/09/26/watch-russian-military-tests-newly-deployed-coastal-defence-system-in-arctic.

only active Russian aircraft carrier, the *Kuznetsov*, led to its decommissioning for major repairs so that it will be out of service until 2021. Despite its age, it will likely remain active beyond 2030 due to the uncertain commissioning of the new aircraft carrier (Samus 2018).

In 2013, Lasserre et al recalled that the Russian marine was in significant decline, in terms of tonnage as well as number of units; the attrition rate (decommissioning due to obsolescence) was much higher than the commissioning of new units.

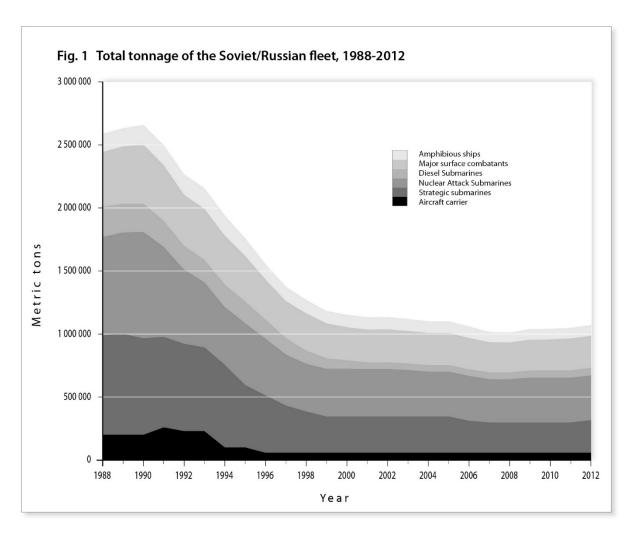
Over the past few years, the Russian fleet has thus actually received several new units: three *Borei* ballistic missile submarines (SSBN) (2013-2014); two *Yasen* nuclear-powered submarines (SSN), 2014 and 2018; six SSK diesel-powered attack submarines (2014-2016); one assault ship (2018); two frigates (2012, 2018); and twelve corvettes (2012-2018).

A noticeable effort is being made to boost submarine construction as attested by the docking table (Table 1).

Table 1. Estimated docking and commissioning of future Russian nuclear submarines to 2023.

	Docking	Estimated
		commissioning
Yasen SSN		
Novosibirsk	2013	2019
Krasnoyarsk	2014	2020
Arkhangelsk	2015	2021
Perm	2016	2022
Ulyanovk	2017	2023
Borei SSBN		
Knyaz Vladimir	2012	2019
Knyaz Oleg	2014	2019
Suvorov	2014	2020
Alexandr III	2015	2020
Knyaz Pozharskyi	2016	2021

However, these new units do not compensate for the decommissioning (see Fig. 1 and Table 2) especially with the likely decommissioning of old nuclear submarines. The SSBN Delta III *Ryazan*, in service since 1982, should be decommissioned in 2018. The Typhoon *Dmitriy Donskov* has effectively been decommissioned since it is being used as a testing platform for the Bulava missile. The six *Delta IV* SSBNs were commissioned from 1984 to 1990 and should soon reach their age limits. As for the SSNs, seven builds were commissioned in 1990 or earlier and are therefore over 28 years old.



Source: Lasserre et al, 2013.

Table 2. Soviet/Russian military fleet, 1983-2018, by class of ship

	1983	1991	2008	2018
Nuclear attack submarines (SSN)	70	65	35	18
Nuclear ballistic submarines (SSBN)	67	60	19	11
Nuclear missile submarines (SSGN)	40	43	11	8
Diesel submarines (SSK)	174	130	19	22
Aircraft carriers	3	5	1	1
Assault ships	0	0	0	1
Cruisers	45	30	7	5
Destroyers	105	37	19	12
Frigates	99	44	6	10
Corvettes	158	101	83	78

Source: Lasserre et al, 2013; Jane's Fighting Ships; Prézelin, B., Flottes de combat.; List of active Russian Navy ships, Wikipedia.

This illustrates the following:

- The rapid, very significant ebb of the Russian marine after the fall of the Soviet Union in 1991. New units were commissioned but this could not erase the decline due to massive decommissioning. It is therefore very far from the size of the marine in the Soviet era.
- Certain classes, such as the cruisers, have virtually disappeared; only one aircraft carrier will have been in service in the Russian marine for several decades.
- Although they have also been declining in number, the relative influence of small area units allocated to coastal defence, frigates and corvettes, is increasing. This is a defensive, rather than an offshore posturing.
- Diesel submarines (SSK) increased in activity with the commissioning of six Improved Kilo/Varshavyanka builds from 2014 to 2016, reinforcing the yet defensive nature of the Russian marine.
- The same is true for nuclear submarines, particularly the SSN and SSBN¹¹, which remain the support structure of the Russian fleet. They are a reminder that the foundation of the Russian naval strategy is still nuclear dissuasion far from home bases rather than world intervention capability.

This decline in the Russian fleet, due in large part to an excessively rapid decommissioning in relation to the construction of new units, has structural causes. Russia had budgetary issues despite the upturn with high oil prices from about 2006 to 2013. The fall of oil prices and imposition of western sanctions following the Ukraine crisis strongly impacted the Russian budget as well as the country's capacity to pay for and continue with the naval unit construction program. This long-term financial constraint reinforced another issue: the gradual loss of skills and capacity of Russian shipyards. Insufficient orders over several years meant that several engineers were lost, and insufficient investment was made to modernize production capacity, forcing a limited pace of construction. Major investments that were beyond the scope of the current Russian budget would be required to regain a construction capacity tailored to the naval equipment program (Sheldon-Duplaix, 2015).

As for the forty new icebreakers recently commissioned, presented by Gramer (2017) as implicitly under military command, some clarification is in order. Russia has not received any nuclear icebreakers since 2012; the 50 Let Pobedy was commissioned in 2007, as well as five diesel icebreakers, including one for marine war; two should be completed in 2018. The estimated forty new units built over the "past few years" would have had to include multipurpose ships, patrol vessels, tugboats, search-and-rescue vessels and platform supply vessels with a substantial ice capacity (not icebreakers). Since 2012, I counted thirteen new units of this type, primarily allocated to port operations or oil exploration. Several of these units and recent icebreakers belong to civil administrations

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¹¹ SNA and SNLE in French.

(Ministry of Transport; RosMorPort) or shipping (Sovcomflot) or oil companies (Rosneft). As for the sixteen new ports, they quite simply do not exist; there is a concrete effort to rebuild Arctic port infrastructures on the Siberian coast, some of which were built several decades ago (e.g., Tiksi in 1933; Pevek around 1934; Dudinka in 1937) and have largely become obsolete for lack of maintenance and investment. Rebuilding them would not mean building new ports. Sabetta on the Yamal Peninsula, a new LNG project, is an exception.

1.2.2. What new Russian bases in the Arctic?

Since about 2013, the Western media have echoed the Russian ambition to reestablish Russian military bases in the Arctic. This essentially involved restoring bases abandoned after the fall of the USSR in 1991¹².

The Russian government undertook the reestablishment of aerodromes such as Nagurskoye (1,500-m runway in 2016¹³), Alexandra Land in the François Joseph archipelago; Temp on Kotelny Island where an initial Trefoil infrastructure had been erected since 2015 to accommodate 250 men¹⁴; Rogachevo in Novaya Zemlia; Tiksi (3,000-m runway, 1,300 m of parking), Vorkuta (2,200 m), Alykel (3,450 m), Anadyr/Ugolny (3,500 m) and Mys Shmidta (2,450 m, planned extension to 3,000 m) (Conley and Rohloff, 2015). Certain aerodromes, such as Aspidnoye, Chekurovka and Ostrov Bolshevik, are still abandoned. Construction camps such as Temp or Nagurskoye on Alexandra Land and Sredny Ostrov, Rogachevo, Wrangel Island and Mys Shmidta are planned and will accommodate 150 - 250 men¹⁵. However, several western analysts have insisted on the construction of new bases and proposed an assessment of their strategic reach. Foxall described the new Trefoil base, built on Alexandra Land in the Franz Josef archipelago, as a "major" base (Foxall 2017, p.8). But this base actually constitutes a new facility in the archipelago and can accommodate 150 men¹⁶, so is it a major base? According to what criteria?

The Rogachevo airbase (south of Novaya Zemlya) has a 2,500-m runway and 800 m of parking allowing for the positioning of about a dozen fighter bombers. The base itself is equipped with a four-storey control tower, which would provide enough room for a fighter squadron. There are a few old, concrete buildings for the staff, a new three-point

¹² The Guardian, Russia to boost military presence in Arctic as Canada plots North pole claim, 10 December 2013, www.theguardian.com/world/2013/dec/10/russia-military-arctic-canada-north-pole

¹³ Therefore much too short for Tu-160 strategic bombers which require 3,050 m (*Air Force Technology*, <u>Tu-160 Balckjack Strategic Bomber</u>, <u>www.airforce-technology.com/projects/tu160/</u>) or Tu-95 which require about 2,500 m.

AllSource Analysis, Russian Activity in the Arctic, Kotelny Island, April 17, 2015, https://allsourceanalysis.com/wp-content/uploads/2015/03/Discovery-Russia-Kotelny-Report-Sample.pdf
 Radio Free Europe, Russia Builds Second Military Base To Support Arctic Ambitions, October 21, 2015, https://www.rferl.org/a/russia-builds-second-military-base-support-arctic-ambitions/27317698.html

¹⁶ BBC News, Russia's new Arctic Trefoil military base unveiled with virtual tour, April 18, 2017, www.bbc.com/news/world-europe-39629819.

barracks was under construction in 2017¹⁷. But none of that is enough to position the many valuable, high-maintenance Tu-160s or Tu-95s that are heavy users of spare parts and fuel.

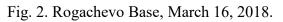




Fig. 3. Tiksi Base, September 3, 2016.

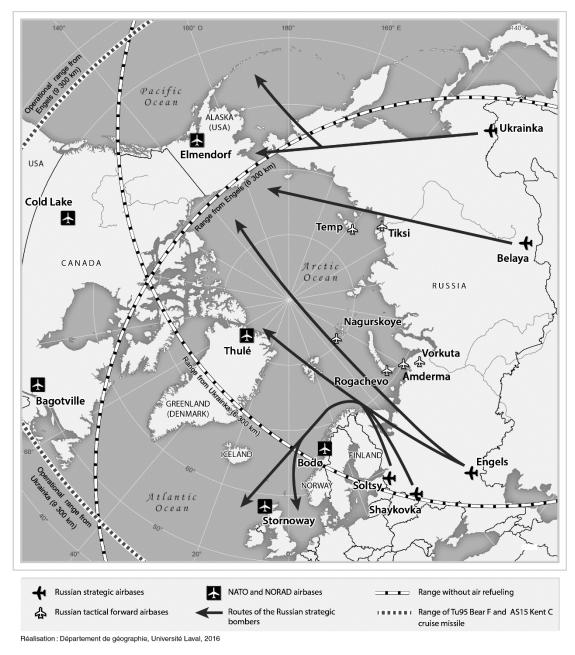
17



One turboprop plane and several helicopters were parked there.

Although rebuilding several aerodromes and constructing new construction camps provides Russia with greater military flexibility, here again consideration must be given to the strategic reach of these reactivated infrastructures: how much apparatus can be accommodated? What anti-aircraft defences are installed, knowing that this was one of the factors during the Cold War that led the Soviets to prefer deep bases (such as Engels and Belaya) for strategic bombers, rather than close sites in the Arctic or Europe (fig. 4)?

Fig. 4. Location of Russian strategic airbases and bomber routes to the Arctic.



Produced by the Department of Geography, Laval University, 2016 Source: Lasserre and Têtu 2016.

What devices will be positioned, given the relative vulnerability of these bases, the very high cost of permanent parking for fighter squadrons and bombers on these advanced bases, and that the doctrine for using strategic bombers is to park them out of reach of enemy strikes? It seems that these bases are points of support positioning a limited number of patrol and fighter planes (MiG 29, MiG-31, Su-27, Su-35) or tactical bombers (Su-34), to better control approaches from the Siberian coast, rather than trans-Arctic offensive bases.

1.3. Very aggressive Russian air patrols?

Several analysts complete this picture by indicating that Russian military aviation has regularly violated the airspace of western countries. "Russia is regularly *invading the sovereign airspace* of other Arctic countries. For example, in 2014, Norway intercepted 74 Russian warplanes conducting air patrols on its coast – up from 58 interceptions in 2013"¹⁸ (Foxall 2017).

This has been a recurrent theme in the Western or Japanese press for several years. Certain Western analysts have considered bomber patrols unfriendly, particularly after patrols approached Canada, Alaska, the UK and Norwegian central command at Bodø, Norway. The resumption of Arctic patrols since 2007 is a fact, as is real Russian aerial pressure on the borders of the Baltic, Scandinavian or Central European countries, with a level of intercepted patrols completely different from what has been observed in the Arctic. Following are a few figures to 2015 (Tables 3 and 4).

These figures show that:

- The number of Russian patrol interceptions in the North American Arctic has certainly increased, from zero before 2006 to five per year on average until 2013, then ten in 2014.
- These figures seem to have hardly increased since 2014, with no interception in Alaskan airspace from July 2015 to April 2017¹⁹, or from NORAD in 2016 (Thorne 2017). These interceptions are completely different from the pressure exerted on Canadian allies in other theatres: 18 in the North Sea; 49 near the Norwegian coast; 160 in the Baltic²⁰; 245 in Europe²¹; 473 in 2014 near Japan... This military pressure was otherwise more intense than the all-in-all moderate pressure of the Russian patrol in the Arctic.
- From this point of view, it would be wise to ask whether the pressure of air patrol off the Norwegian coast is the result of Russian tactics in the Baltics and Scandinavia, or could be considered as coming from the Arctic. The close proximity of Russia, the rare but real breach of national airspace in this region by Russian fighter planes (Lasserre and Têtu, 2016), and the European dynamic of Russian aviation in this region since the Ukraine crisis argue for an analysis

¹⁹ RC International, Eye on the Arctic. F-22s intercept Russian bombers outside Alaska for first time since 2015, April 19, 2017, www.rcinet.ca/eye-on-the-arctic/2017/04/19/f-22s-intercept-russian-bombers-outside-alaska-for-first-time-since-2015/

The Independent, NATO intercepting highest number of Russian military planes since the Cold War as 780 incidents recorded in 2016, April 22, 2017, https://www.independent.co.uk/news/world/europe/nato-russian-planes-intercepted-eu-europe-fighter-jets-scrambled-bombers-raf-typhoons-alaska-putin-a7696561.html.

¹⁸ Emphasis is mine.

Then 110 in 2016 and 130 in 2017 on the Baltic front to defend the airspaces of Estonia, Latvia and Lithuania. *Baltic Times*, NATO's intercepts of Russian aircraft increased in 2017 from 2016, January 6, 2018, www.baltictimes.com/nato_s_intercepts_of_russian_aircraft_increased_in_2017_from_2016/,

²¹ In 2015, 410 interceptions by NATO instruments targeted Russian instruments from European bases, then 780 in 2016.

dissociating the behaviour of Russian aviation in relation to Norway and the North American Arctic.

In addition, what these figures do not show, but must also be borne in mind, is that in no case did Russian patrols breach the airspace of the North American countries, Norway or the UK. As mentioned, there were a few exceptions in Lithuania or Finland, but these incursions were very brief.

"But in all the years that Soviet and, later, Russian aircraft have embarked on such missions, they've never breached Canadian or American airspace, said Major Jennifer Stadnyk, a spokeswoman at North American Aerospace Defence Command (NORAD) headquarters in Colorado... Every incident was conducted, by both Russia and NORAD fighters, in a safe and professional manner," said Stadnyk. Norad aircraft have intercepted and visually identified Russian aircraft off North America about 60 times since 2007, for an average of about seven times annually. The numbers have varied each year from as high as 15 to as low as none." (Thorne, 2017).

The media and analysts regularly confuse national airspaces and traffic control zones (ADIZ or Air Defense Identification Zone), the buffer zones where air traffic is monitored. Penetrating an ADIZ without permission is not illegal since these airspaces are not subject to conventions. Thus, the US does not recognize the ADIZ proclaimed by China in the South and East China seas. However, according to international law, penetrating the airspace (which extends over twelve nautical miles, 20 km from the coasts) is an act of war authorizing immediate riposte. It is therefore unlikely that Russian military apparatus would have deliberately breached the airspace of a NATO or NORAD country (Lasserre and Têtu 2016).

These bombers might be armed; although they do not carry missiles under their wings, they could have them in their cargo hold. If that were the case, Russian Kh-55 Kent long-range missiles could cruise about 1,700 km. Launched outside of Canadian airspace from the Beaufort Sea, for example, they could reach Whitehorse or Resolute Bay; certainly a threat, but quite unlikely to affect the security of major Canadian urban centres.

More recently, Russia developed the Kh-101, apparently with a range of 4,500 km²², which from the coast of the Beaufort Sea could reach Vancouver, Calgary or Toronto, if the bomber got to this point. For reasons of security, NORAD has never communicated at what distance from the Arctic coasts Russian patrols have been detected. The military is aware of the existence of this weapon, which could be considered by its range as much a threat as strategic weapons launched from submarines, and they are organizing in-depth surveillance of the airspace well beyond the coastline. That said, why would Russia launch a conventional 500 kg load on Vancouver or Toronto? The possibility of this is one thing, which planners have taken into account; implementing it is another.

²² On the inside of the Blackjack Tu-160, and outside, thus clearly visible, on the Bear Tu-95 (Bosbotinis 2018). Such missiles have never been reported to date on Tu-95 flying toward NORAD space.

Finally, these Arctic patrols of Russian bombers were frequently planned far ahead, and NORAD was warned; Russian equipment often flies at high altitudes, which makes them easy to detect. The threatening nature of these air activities therefore remains to be demonstrated; and it is not in the Arctic that the Russian military equipment is exercising its pressure on NATO in relations that have deteriorated significantly since the Ukraine crisis in 2014.

Table 3. Number of interceptions of Russian military planes by NATO apparatus, according to various sources, 1992-2014

Period, region and source				19	90s			2000s														
		92	93	94	95	96	97	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NORAD Arctic 2007-2010 Peter MacKay	North American Arctic														"NORAD fighters have intercepted between 12 and 18 bombers annually since 2007"							
1992-2011 Rob Huebert	Canadian Arctic	5	3	2	0	0	0	0	0	0	1	0	0	1	15	8	16	9	9			
	North American Arctic													1	4		2	3		1	1	8
2000-2014	Europe														10	2		2	4	1	1	6
Simon Viel (2014)	Baltic																		1		1	11
	Black Sea																			1	1	7
	Japan							2						1		1				1	2	3
NORAD 2009-2014	North American Arctic																25 interceptions 2009-2014, 5 on average per year.				10	
NORAD 2006-2011	North American Arctic	20	16.0	1										45 interceptions 2006-2011, 9 on average per year.								

Lasserre and Têtu, 2016. 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 gave figures for the number of bombers intercepted, not for the frequency of interceptions (regardless of the number of Russian planes in their group), which constitutes the methodological basis of calculation 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, Advanced International Studies, Laval University, Quebec City. Analytical work on media titles, October 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.

Table 4. Number of interceptions of Russian warplanes by Japanese, Western or NATO combat aircraft, 1992-2015

Region and	1990'							2000'														
period	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									
Baltic by NATO 2013-2015																				30	140	160
Europe by NATO 2013-2015																				180	442	410
Bulgaria 2007-2014														2 - 3 interceptions a year on average						2 - 3 per week		
Norway 2007-2014														47			36	34	41	41	49	
North Sea, interceptions by the UK 2010-2015																20	11	10	8		2	18
Japan 2010-2015															193	197	264	247	248	359	473	288

Lasserre and Têtu, 2016. Sources by region:

Lithuania: number of airspace violations. "Lithuania Concerned Over Russian Air Incursions and Attempts To Divide NATO", 04VILNIUS1353_a, October 29, 2004, cable from the US Embassy in Vilnius, https://wikileaks.org/plusd/cables/04VILNIUS1353 a.html, c. March 2, 2016.

Baltique: 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,

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1.4. What NATO vulnerability?

Andrew Foxall reckons that "Russia has spent the last decade intensively militarising the Arctic. It has made considerable investments to improve its capacity and capabilities in the region, including establishing new Arctic brigades, re-opening Soviet-era military bases and building new facilities... This has far outstripped Western efforts over the same period and has left the West vulnerable". This analysis summarizes common explanations of Russia's behaviour: desire to reinvest in the navy; re-establishment of Siberian military bases; resumption of Arctic air patrol. Note that Foxall uses "the West" to focus on the cold war viewpoint. Why the West? Why not use "western" which was used in frequently during the cold war and is therefore more neutral?

However, analysts do not frequently emphasize the following points, which are just as relevant for the purposes of analyzing Russian military strategy in the Arctic:

- Russian air patrol, often driven at high altitudes without fighter escorts, is weak in the Arctic.
- Russian air patrol have rarely breached western airspace.
- Despite Moscow's reinvestment efforts, the Russian marine continues to decline, increasingly assuming the profile of a coastal defence marine with a strong nuclear submarine dissuasion component. Images of missile launches from mobile coastal batteries, widely broadcast in the fall of 2018, attest to this defensive posturing: such batteries can serve to prohibit access to Siberian bases or waters, but not to attack adverse positions. In addition, the need to reinforce the coastal defence attests to a perceived threat that cannot be effectively countered by the marine or air force; it would therefore give credence to Russian recognition that its own marine is inadequate to defend its bases in the Arctic.
- It is difficult to speak of rapid investment and the resulting increase of Russian military capacity when this occurs after two decades of continuous decline in terms of equipment as well as funding and a consequential lack of training. In fact, certainly for the past few years, real effort has been made in terms of Russian military apparatus, but it is too early to say whether that will only slow the decline of the marine, or actually give it a significant advantage in Siberia. In addition, Russian military training and the organization of maneuvers in the Arctic would be considered normal for an army; it is the absence of training that would be surprising. That these exercises could constitute political messages, what political scientists sometimes call posturing to draw attention, is also likely (Lasserre et al, 2012; Lasserre and Têtu 2016).
- "The West" has not reinvested at the same pace as Russia over the past few years, but, at the same time, it has not experienced a comparable decline in capacity. From 1991 to 2012, Norwegian marine tonnage increased 62%; Danish marine tonnage increased 45%. The size of the US fleet certainly decreased, from 87 SSN in 1991 to 54 in 2015, with an estimate of 45 for 2040; six aircraft carriers (AC) and 8 NAC (nuclear aircraft carriers) in 1991, 11 NAC in 2015 and 11 estimated for 2040.

- The representations and perceptions are highly subjective. Moscow's intended message in these important Arctic manoeuvres is questionable – they are likely intended to highlight Russia's determination to defend this zone considered strategic in a space that Moscow considers as Russian. Moscow has not displayed an expansionist strategy – the case of extended continental shelves is discussed later. Finally, it would be useful to recall that the rhetoric of the Canadian conservative government (2006-2015), military reinvestment, and the significant increase in Canadian military manoeuvres in the Arctic have also contributed to the perception in Europe that Canada is particularly aggressive in the Arctic zone²³.

1.5. What is the projected military capacity of Russia in the Arctic?

The Russian marine is but a shadow of what it was in 1991 with the fall of the USSR, and the same is true of the air force, the projected long-distance capacities of which have decreased considerably with the attrition of the Tu-160 and Tu-95 strategic bombers²⁴, as well as the light supply of inflight refuelled airplanes (Lasserre et al, 2013).

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²³ Olivier Truc, "Of the five countries in the Arctic region, Canada is surely the one that has the most aggressive Arctic policy" [translation]. *Le Monde – Bilan géostratégique*, 2010, p. 90.

Neil Hamilton, "Canada disqualified itself [from a leadership role in the Arctic] by turning the Arctic into a nationalist and populist political theme" [translation]; in "Les défis de la gouvernance de l'Arctique", P. Jacquet et al (ed.), *Regards sur la Terre 2011*, Armand Colin, Paris, 2011, p.327.

Jean-Marie Collin, "Under Prime Minister Harper, Canada is the most aggressive and demanding in its desire to affirm sovereignty in the Arctic" [translation]. "Arctique, un territoire en recherche de souveraineté", *Cahiers de la Revue Défense Nationale*, Special issue *L'Arctique*, théâtre stratégique, Oct. 2011, p.17.

²⁴ The Tu-95s were the old turboprop bombers of the 1950s, continually maintained, attesting to their endurance but also to Russia's inability to replace them due to inadequate financial means (Lasserre and Têtu, 2016).



Fig. 5. CF-18 Hornet fighter intercepts a Tu-95 bomber near Canadian Arctic territory. Source: DND, with permission.

The dual profile of the marine is increasingly seen as a significant strategic submarine force, a nuclear dissuasion tool; and an increasingly coastal marine, although intervention is still possible mid-distance from its bases as during its Syrian campaign – knowing that the Port of Tartous could also be used as a support point, greatly facilitating logistics. But the Russian marine has little means for long-range amphibious assault; its only aircraft carrier has been drydocked since 2018; it has fewer and fewer large surface units (cruisers and destroyers) and none of its large units has an ice classification.

The relatively small reactivated military bases in Siberia are subject to a strong logistic constraint; fuel, equipment and ammunition must be transported on site, and there is a certain vulnerability due to potential air strikes or sea-to-ground missiles. Their size also makes them poorly suited to mounting a major assault operation against the North American Arctic, requiring bombers, escort fighter aircraft and support equipment. Their role seems to be more defensive, political (given Russia's determination to defend this territory) and intended to support search-and-rescue operations.

In addition, Russia has few disputes with the US, Canada or even the Scandinavian countries *in the Arctic*. The 2010 treaty settled the dispute between Russia and Norway over the Barents Sea; the Russian claim on the Lomonossov Ridge does not seem excessive, at least no more so than Canada's, and in any case much smaller than Denmark's.

Thus, as Lackenbauer and Lajeunesse, state, "whatever Putin's global intentions may be, the vague but provocative forecasts of Russian military adventurism in the Arctic are simply unrealistic. They also tend to overstate Russia's conventional expeditionary capabilities in the region, playing into Putin's hands as he attempts to depict his country as an Arctic hegemon." (Lajeunesse and Lackenbauer, 2017).

If the posture of the Canadian air force was to be adapted to counter this potential threat, long-range apparatus should be considered in the short term, as it would be capable of ensuring surveillance monitoring in the event of tension and rapidly intercepting approaching squadrons, as well as reliable motorization due to the wide spaces without bases. Consideration should therefore be given to bioreactors such as the CF-18 Super Hornet (2,100 km), Typhoon (1,850 km) or Rafale (1,750 km) which have a wider range than F-35 monoreactors (only 1, 000 km and better suited to dense, highly technological theatres of operation). This would require the purchase of only a few patrollers to support their reaction capacity.

1.6. Remaining watchful in the European Arctic and the Baltic Sea.

That said, although Russia has a small, long-distance projection capacity and little interest in setting off a conflict against NATO, it is important to remain watchful. As emphasized previously, the pressure on the Eastern European, Baltic and Scandinavian theatres is completely different from what NORAD observes in the North American Arctic. It is undoubtedly political posturing and translation of Russia's discontent with western sanctions in the Ukraine crisis. The multiple, more aggressive air patrols (low altitude, dark responders, no warnings, brief but repeated breaches of Baltic, Finnish and Swedish airspaces; radar lock-on...) underline the high density of military assets in the region and the short distances at play. The Enclave of Kaliningrad encompasses several major Russian military bases and it is a very short distance from the Russian borders with the Baltic countries or Finland: 165 km from Helsinki; 180 km from Tallin...

If one were to imagine a zone where the vulnerability of NATO countries or western countries in general was greatest, it would be this one. The short distances previously mentioned and the large military staff make the possibility of a power grab, such as Russia's annexation of Crimea in 2014, more plausible. The takeover of the island of Gotland is a scenario seriously envisaged by Swedish armed forces and is undoubtedly the reason for its remilitarization by Stockholm: It is easier to dissuade Moscow with the prospect of a pitched battle than if there was no force on the island. A strong Russian military presence on Gotland would lock the eastern and northern Baltic Sea (Montel, 2017). Nothing currently indicates that this prospect is being seriously considered by Moscow, but the scenario demonstrates that the European Arctic and Baltic space, not Canada, is somewhat vulnerable to Russian armed forces.

2. China's Arctic policy.

China showed an interest in the Arctic region by submitting its application for Arctic Council observer status in April 2007 prior to the planting of the Russian flag at the North Pole. Does the passage of the first ship to travel the Northeast Passage north of the Siberian coast in August 2013, a Chinese merchant ship, the Yongsheng from the state company Cosco, illustrate the Arctic ambitions of Peking? China's diplomatic efforts with the Arctic Council or economic efforts with mining, gas or maritime transport projects have been arousing negative reactions since around 2009 from the media or certain western analysts, who often paint a portrait of an ambitious, arrogant China that is prepared to shake up the established legal order to defend its interests in the Arctic and that would not hesitate to shake up the sovereignty of countries in the region (see, for example, Edmonton Journal, 2007; New York Times 2012; for analyses underlining the potential threat of China in the Arctic, see Wright DC 2011, 2011b, 2013; Wright TC, 2013; Beck, 2014). However, if China had a real international, political ambition, it has never yet sought to challenge the sovereignty of the Arctic States; it even undertook to respect these claims during its admission as an observer in the Arctic Council in 2013 (Alexeeva and Lasserre, 2012, 2015; Peng and Wegge, 2014).

Recent studies (Lasserre et al, 2016; Lackenbauer et al, 2018) have emphasized the role of representations in this idea of a China potentially threatening the sovereignty of the Arctic States, as well as a sometimes-ambiguous attitude on the part of Beijing. China also apparently delayed in clarifying its position on sovereign spaces in the Arctic, with respect to Arctic passages and its economic ambitions, particularly its interest in the exploitation of natural resources and the development of active shipping routes (Huang et al, 2014; Alexeeva and Lasserre 2015).

2.1. A policy published to reassure?

China published *China's Arctic Policy* (State Council Information Office, 2018), its white paper on its Arctic policy in order to remove these ambiguities. This document filled a gap since there was no official text specifying China's Arctic ambitions, but the perception of this lack, especially by the western public, flowed from the premise that the Arctic necessarily occupied an important place and that a consistent policy was required to structure it, but it remained hidden. The order of priority of the Arctic in China's international policy was not, however, as high as the Arctic countries would have liked to believe²⁵, even though China was a player with notable political and economic weight and its projects could therefore have a real impact. Another factor entertained by this idea of lack of Chinese transparency resided in the fact that South Korea (2013) and Japan (2015) had published their own official Arctic policies.

Since the publication of China's Arctic policy, certain researchers such as Wright (Wright 2018) have emphasized the ongoing threat of China, accusing China of revisionism

²⁵ For example, did Canada publish a white paper on its policy in Latin America? Being able to identify the priorities of active diplomacy does not necessarily involve writing a formal policy paper.

and being hawkish. Others, such as Rodman (2018), are more qualified, but still emphasize the risk posed by China. Finally, others (Dolata 2018) point out the cooperation that China seems to have wanted to develop. What does China say in this Arctic policy?

This document, likely written for the public in the Arctic States, echoes the real or supposed ambiguity that several western observers lend to the Chinese posturing in the Arctic. It seems to seek to reassure; its 14 pages include 45 references to the concept of cooperation, 22 references to the concept of China's respect toward Arctic and international States, corporations and Arctic and international institutions, a nuance developed in the following section; four references to the concept of sustainability, and three references to the concept of win-win. China will participate "in Arctic affairs in accordance with the basic principles of "respect, cooperation, win-win result and sustainability".

2.2. A statement riddled with ambiguities

Once again, however, the document is not free of ambiguities.

Thus, China explicitly recognizes the sovereignty of the Arctic States: "The continental and insular land territories in the Arctic cover an area of about 8 million square kilometers, with sovereignty over them belonging to Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States [...]. These coastal States have within their jurisdiction internal waters, territorial seas, contiguous zones, exclusive economic zones, and continental shelves in the Arctic Ocean." But it remains silent on sticking points such as the Arctic passages. China might have chosen to remain silent on this matter because of the dispute which specifically pits the Arctic States against one another on the status of the Northeast and Northwest passages in the Arctic, since the US remains opposed to Canadian and Russian claims. The European Arctic States remain neutral. But this silence gives way to some ambiguity: what is China's position on the Arctic passages?

The next part of the document addresses this ambiguity: "States from outside the Arctic region do not have territorial sovereignty in the Arctic, but they do have rights in respect of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines in the high seas and other relevant sea areas in the Arctic Ocean, and rights to resource exploration and exploitation in the Area, pursuant to treaties such as UNCLOS and general international law." All of this is accurate, and is intended to provide reassurance of the spatial ambitions sometimes attributed to China but, here again, the juxtaposition of the two paragraphs seems to emphasize the rights of the non-Arctic States in the region, as if these rights were disputed – perhaps this is China's perception. China states, in fact, that it is "an important stakeholder in Arctic affairs. Geographically, China is a "Near-Arctic State" one of the continental States that is closest to the Arctic Circle": why is this

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²⁶ Note that the UK has adopted a similar expression since 2013, emphasizing in its Arctic policy that "the United Kingdom is not an Arctic State, but we are the Arctic's nearest neighbour." *Adapting to Change. UK policy towards the Arctic.* Polar Regions Department, Foreign and Commonwealth Office, London, 2013. The expression remains unchanged in the 2018 policy, *Beyond the Ice. UK policy towards the Arctic.*

mentioned, since proximity has no legal value? Is it to emphasize the legitimacy of China's interest in the Arctic, which the States in the region do not dispute; or to imply that China can legitimately play a particular role in Arctic governance – what role?

In addition, in a section intended to specify how China intends to participate in Arctic governance, the text states immediately that "Respect" is the key basis for China's participation in Arctic affairs. Respect should be reciprocal. It means all States should abide by international treaties such as the UN Charter and the UNCLOS, as well as general international law. They should respect the sovereignty, sovereign rights, and jurisdiction enjoyed by the Arctic States in this region, respect the tradition and culture of the indigenous peoples, as well as respect the rights and freedom of non-Arctic States to carry out activities in this region in accordance with the law, and respect the overall interests of the international community in the Arctic." China ranks international law as a fundamental principle of Arctic governance²⁷, emphasizing that, if it respects the Arctic States, the Arctic States must also respect the principles of international law. Without specifying the particular aspects that China has in mind, this formulation, which echoes the reminder of the "rights" of the non-Arctic States, is, still ambiguous. No Arctic State can dispute the legitimacy of the argument – all Arctic States cite the fundamental nature of international law – but this reminder and insistence on the rights of third States is puzzling: Does China feel that an attempt is being made to exclude it from the Arctic? Or does it have particular views on certain points of law, such as the status of the Arctic passages, a point that is dear in the eyes of Canada as well as Russia?

China also seeks to emphasize its place in the agreement of the Arctic States. Thus, "through global, regional, multilateral and bilateral channels, all stakeholders — including States from both inside and outside the Arctic, intergovernmental organizations, and nonstate entities — are encouraged to take part in cooperation on climate change, scientific research, environmental protection, shipping route development, resource utilization and cultural activities". Since China considers itself a stakeholder, this applies to it. True, no one can be against virtue, but in what policy framework must cooperation in the area of resource development and shipping routes be included? If it is clear in China's view that this cooperation is subordinate to sovereignty and the sovereign rights of the Arctic States, then the reflection mentioned in the document can be understood, but the preceding paragraph in the official document precisely put a damper on the sovereignty of the Arctic States. In addition, this view of China's perspective of cooperation banalizes the role of the Arctic Council, a fundamental institution in the eyes of the Arctic States, since this cooperation that China is hoping for must be ranked globally, regionally multilaterally and bilaterally, even if China "as an accredited observer to the Arctic Council, highly values

²⁷ Which is not without irony since China rejects the application of international law in other regions. Thus, China is rejecting the judgment of the Permanent Court of Arbitration rendered on July 12, 2016 on the matter of the sovereignty of the South China Sea islands. Permanent Court of Arbitration, Arbitration on the matter of the South China Sea (Republic of the Philippines v. People's Republic of China), July 12, 2016, https://pcacpa.org/en/news/pca-press-release-the-south-china-sea-arbitration-the-republic-of-the-philippines-v-the-peoples-republic-of-china/.

the Council's positive role in Arctic affairs, and recognizes it as the main intergovernmental forum on issues regarding the environment and sustainable development of the Arctic".

China's white paper actually seeks to reassure and emphasize China's willingness to cooperate. However, it also emphasizes China's concern for seeing its place respected in the concerted action of the States in order to develop the governance of the region. It is therefore legitimate to ask the following question: Does Beijing feel that the Arctic States are refusing to cooperate with China? Or does China have another interpretation of international law on certain points, such as the status of the Arctic passages or the appropriate institutional framework for this governance? This is not clear. This ambiguity is not necessarily a danger, as we have seen, since China's silence can be partially explained by its unwillingness to become involved in the disputes of the Arctic States.

2.3. The voyage of *Xuelong*: a missed opportunity?

In this regard, the recent transiting of the Chinese icebreaker *Xuelong* through the Northwest Passage in 2017 could have been the opportunity to validate the Chinese position. The build had already transited through the Northeast Passage several times and China likely would have confirmed that it had Moscow's permission, which would constitute a precedent. However, the transiting of *Xuelong* in the Canadian Arctic Archipelago never did take place. In order to remain neutral in the Canada-US dispute, or keep its options open (since the precedent had been set with Russia) China presented its ship's voyage as "marine scientific research", which had a different status; it assumed the consent of the coastal state, actually requested from Canada, but did not include the possible transiting of commercial ships. Thus, "dubbing their transit a science expedition allowed China to keep everyone happy without giving away its own position on whether it should be allowed to transit without Canada's consent for commercial or other purposes" (Rodman 2018, p.63).

Chinese blunder? Or legitimate interpretation on the part of Beijing, since the Xuelong was actually on a scientific mission, but one with a certain bitter after-taste as far as Canada was concerned? Deliberate game by China? We must be wary of hasty interpretations. The literature has long been reporting that the *Xuelong* had illegally approached the Canadian coasts in 1999 at Tuktoyaktuk, attesting to China's hidden intentions according to several analysts (see in particular Teeple, 2010). As it turned out, the Chinese government had actually warned Ottawa and that Canadian red tape was the reason that Tuktoyaktuk authorities had been misinformed (Pelletier and Lasserre, 2015).

This ambiguity of the Chinese white paper calls for a dialogue with China, bearing in mind that the Arctic is not a priority of China's policy (Lasserre et al, 2016; $Tunjsø^{28}$, in Shek, 2018).

²⁸ The Arctic is the last thing on Chinese President Xi Jinping's mind when he wakes up in the morning," Ø. Tunjsø, Professeur of international policy, Norwegian Institute for Defence Studies (Shek, 2018).

3. Extended continental shelf issues

In early December 2013, the Government of Canada submitted a partial application on an extended continental shelf in the Atlantic region to the United Nations Commission on the Limits of the Continental Shelf (CLCS), the organization responsible for evaluating claims for extension of the sovereign rights of coastal states on potential seabed resources based on geological and geomorphological data. According to the 1982 Convention on the Law of the Sea, the States had ten years following the ratification date to submit this document to the CLCS. Ottawa ratified the Convention in December 2003. Canada thus benefited, de facto, from the CLCS's tolerance of the States which submitted only partial applications since the maximum deadline was suspended with the submission of a partial application.

It seems that the Canadian government had a file ready for submission for the Arctic region, however, and that it was a policy decision of Prime Minister Stephen Harper that led the government to suspend the submission of its Arctic claim. The reason frequently cited by the media, and implicitly confirmed by the government, was to extend the claim of an extended continental shelf up to the North Pole²⁹.

Under international law as set out by the United Nations Convention on the Law of the Sea, the extended continental shelf is a marine area beyond the 200-nautical-mile limit forming the outside envelope of the Exclusive Economic Zone (EEZ). A coastal State does not have sovereignty over the EEZ or the extended continental shelf; it has sovereign rights over the exploitation of seabed and fishery resources in the EEZ, the only seabed resources in the continental shelf. This may appear to be a subtle nuance, but it is significant; the coastal State does not govern third-party activities in the EEZ or the extended continental shelf outside of these areas of control. It is therefore unconscionable to speak of Canadian sovereignty over the extended continental shelf; it is preferable to speak of Canadian interests or sovereign rights.

The EEZ is defined geometrically; its outer limit is located 200 nautical miles (320 km) from the coastal base line. The extended continental shelf is determined by the limit of the continental slope, that is, the line where the continental shelf ends and the deep-sea bottom of the oceanic plate begins. It is thus a limit to be determined through geomorphological and geological research, and the States must include their evidence in their submission to the CLCS. The Commission reviews only geomorphological arguments; it does not trace the border and does not become involved in possible crossclaims. It should also be noted that a continental shelf right is non-prescriptive; any Coastal State has the right, regardless of the order of submission of claims. Thus, extended continental shelf claims are not settled on a "first come, first served", basis. There is no

²⁹ Chase, S., Arctic claim will include North Pole, Baird pledges as Canada delays full seabed bid. *The Globe and Mail*, December 9, 2013, https://www.theglobeandmail.com/news/politics/ottawa-delays-full-bid-for-claim-to-north-pole/article15824139/.

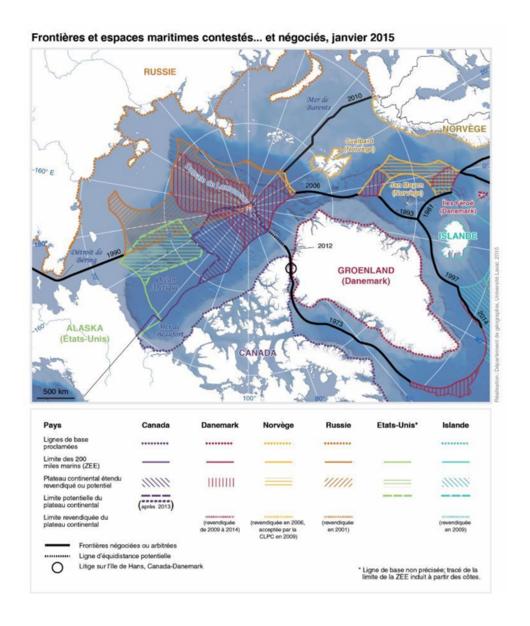
race to the Arctic zones, only a race against the clock, since the States must submit their initial files less than ten years after ratification.

In the specific case of the Arctic Ocean, the States are at various stages in their claims (Table 5).

Table 5. Status of Arctic extended continental shelf claims.

	Russia	Norway	Denmark	Canada	É-U
Ratification date	March 12, 1997	June 24, 1996	Nov. 16, 2004	Dec. 7, 2003	Not ratified
Cut-off date	May 13, 2009	May 13, 2009	Nov. 16, 2014	Dec. 7, 2013	-
Claim submissions	Dec. 20, 2001 New submission, August 3, 2015	Nov. 27, 2006	Partial submissions: - North Faroe Islands, April 29, 2009 - South of Greenland, June 23, 2012 - East of Greenland. 27, 2013 - North of Greenland, Dec. 11, 2014	Dec. 6, 2013, partial (Atlantic)	-
Commission's opinion	Request for specifics, June 14, 2002	Claims accepted, Nov. 27, 2009	Claim north of Faroe Islands accepted, March 25, 2014.	-	-

Russia's claim was the first to have been made public. It aroused numerous reactions because it included the Lomonossov Ridge up to the North Pole. Canada appeared to have decided to do the same, while in 2014 Denmark revealed a much more extensive claim, beyond the North Pole, up to the limit of the Russian EEZ (see Fig. 6).



Source: compilation, F. Lasserre

Fig. 6. Claims on extended continental shelves and maritime boundaries in the Arctic

Maritime boundaries and spaces disputed... and negotiated, January 2015

RUSSIA

Barents Sea NORWAY

Faroe Islands
(Denmark)

Bering Strait Lomonossov Ridge

GREENLAND (Denmark)

ALASKA (U.S.A.)

Country	Canada	Denmark	Norway	Russia	United States'	Iceland
Baselines declared			·			
200-nautical-mile limit						
(EEZ)						
Claimed or potential extended continental shelf						
Potential continental shelf limit	(after 2013)	(claimed 2009-2014)	(claimed in 2006, accepted by the CLCS in 2009)	(claimed in 2001)		(claimed in 2009)
Continental shelf limit claimed			-,,			

Arbitrated or negotiated borders
Potential equidistance line
Canada-Denmark dispute over Hans
Island

Source: compilation, F. Lasserre

Base line not specified; EEZ delineation inferred from the coasts

Note that, contrary to one idea received, several maritime boundary lines have been traced and mutually agreed upon by States; we are far from the state of heightened tension painted by some analysts and media in the region.

In this context, it is actually surprising that the Russian claim would be systematically described as a threat to Canadian interests when potential overlaps are minimal, and that both the Canadian and Russian claims are based on the North Pole, likely because of the symbolic role of this point which has no strategic value (Burke 2018). However, Denmark's claim is much more extensive, since it crosses the ocean basin up to the Russian EEZ, and extensively oversteps the potential claims of Canada (and vice versa).

Everything actually depends on the CLCS experts' interpretation of the scientific evidence provided by Canada, Russia and Denmark. There are several possible scenarios:

- The Lomonossov Ridge is an extension of the Eurasian continental shelf and only the Russian claim is legitimate in this case;
- The Lomonossov Ridge is attached to the North American continental shelf, so Denmark's and Canada's claims are legitimate, and they are responsible for splitting up their maritime space. Since the North Pole is located on the European slope of the Ridge, it is unlikely that Canada can keep Santa's workshop in its maritime space.
- The Lomonossov Ridge is separate from the continental shelves and therefore cannot be claimed; in this case, the three claims on this Ridge are invalid;
- The Lomonossov Ridge is a piece of the continental crust that can be traced to the Eurasian or North American continents, in which case all three claims would be legitimate. The three States would be responsible for splitting up the maritime space at issue and identify maritime borders. The CLCS does not have this mandate.

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