

The Rise of the Snow Dragon : Assessing the impact of China's increasing role in the Arctic

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Abstract

The Arctic is heating up in more ways than one. With the loss of its ice comes a rise in states' national interests in the Far North, but whether the region will develop the governance required to effectively address its growing transnational challenges remains unclear. This research considers *'In what ways will China's increasing role in the Arctic impact on the future development of its regional governance regimes?'* As a rising global superpower with increasing influence and ambitions in the Arctic, China's presence is one of the main drivers behind change in the regional status quo. Situational-structural regime theory is used to explore China's potential impact on the Arctic's overarching and interconnected *'Environmental'*, *'Security'* and *'Economic'* regimes. This interest-based regime theory exposes how different degrees of cooperation evolve in each regime depending on the perceived national interests in developing transnational governance mechanisms. China's role is cross-examined against a series of regime-specific indicators of governance. They mainly investigate the impact this will have on the United States' and Russia's perceptions, and thus reactions, to Beijing's influence in these regimes. This research demonstrates that China, despite some potentially significant contributions, will mostly detriment development across the governance regimes, largely due to medium-term economic interests. However, it is the United States' perceptions of China's rising role, almost exclusively as a geopolitical threat, that is most likely to prevent regime development towards a governance capable of managing an increasingly contested Arctic; a warning for the future of global governance beyond the Far North.

Introduction

The Arctic is a rapidly changing region. Climate change leaves it with the world's fastest rate of ice-melt (Tilling et.al., 2017) at twice the global average (Wang and Overland, 2012). It hosts some of the world's greatest powers within the circumpolar 'Arctic Eight' states (Keskitalo, 2004, p.45), such as the United States of America (US) and Russian Federation (Russia). It has long-drawn fluctuating levels of non-Arctic state interest, based on its environmental, scientific, geopolitical and most recently, natural resource and shipping potential. As its strategic value rises, the region 'heats up' in more ways than one (Chen, 2012, p.361) and yet 'for the first time in human history we have the opportunity to put in place effective governance mechanisms before there is massive development of a region' (Eichbaum, 2017, p.6).

China is a rising superpower with increasingly explicit polar ambitions since its Arctic white paper and Polar Silk Road initiative (SCIO, 2018; Ibold, 2018). Their increasing role in Arctic affairs, especially in relation to its great powers, is going to have considerable impacts on the development of the *Environmental, Security and Economic* regimes that constitute the key issue-areas of its governance. Chapter One contextualises present Arctic governance against its history of transitions. Chapter Two explores the development of the existing environmental regime through Beijing's impact on the various criteria that constitute its governance. Chapter Three tests whether China's increasing role will herald the return of great power politics by assessing their impact on positive and negative measures of security governance regime development. Chapter Four lastly investigates China's impact on the development of an effective economic governance regime through the Polar Silk Road and its Arctic shipping and resource interests.

This region of 'frontiers' behaves like no other, increasingly reflecting a 'subsystem' of wider global politics (Wegge, 2011, p.166). Arctic developments are neither delimited to intra-regional affairs, nor necessarily still insulated from extra-regional spill-over. As such, understanding the ways that China's increasing role will impact on the development of the *Environmental*, *Security* or *Economic* regimes is crucial for predicting future trends of Arctic regional governance, as well as acts as a 'bell-weather' (Huebert and Exner-Pirot, 2012) indication for how Beijing's rising influence could impact the development of global governance more broadly.

Literature Review

Whether under international relations, international economy, strategic studies, environmental politics, climate science, area studies or beyond, the academic lenses through which the Arctic is discussed are extensive, as are the publications producing Arctic-focused content. Of recent, increasing numbers of Arctic-specific literature has emerged through: news agencies such as BarentsObserver (2002), Arctic Today (2012) and High North News (2014); think tanks, research groups and academic institutions such as the UArctic (2001), Arctic Institute (2011) and most recently, Polar Connection (2016); and regular publications and journals in the Arctic Review on Law and Politics (2010), the Polar Journal (2011) and the Arctic Yearbook (2012).

Literature interpretations of the Arctic are divided along the lines of traditional international relations theory. Historically, post-Cold War analysis centred on the hope for multilateral cooperation through environmentalism and scientific research (Young, 1985; Clive, 1988; Stokke, 1990; Roginko et.al., 1992; Caron, 1993; Hønneland, 1998; Scrivener, 1999). Young, Hønneland and Stokke are keys proponents of the

institutionalist approach (Young, 2002, 2005, 2009; Hønneland, 2012; Østerud and Hønneland, 2014; Hønneland and Stokke 2007; Stokke, 2006, 2011; 2014a; Young and Stokke, 2020), though from differing constructivist and liberal perspectives. This school of thought emphasises the Arctic as a 'zone of peace' through the development of governance, regionalism and institutions around low politics (Neumann, 1994; Browning, 2010; Koivurova, 2011; Laruelle 2011; Byers, 2013). These scholarly 'reaffirmers' (Olesen, 2014, p.6) contend that even as the regions institutions are faced with increasingly complex governance needs, 'Arctic exceptionalism' will continue by reworking and extending them to overcome their increasingly difficult – yet largely mutual – challenges (Young, 2019; Byers, 2013; Rosamond, 2011; Hough, 2013; Brosnan et.al. 2011; Ebinger and Zambetakis, 2009).

This contrasts with the 'warners' (Olesen, 2014, p.6), 'alarmists' or 'Conflict School' (Macdonald, 2019) that argue that great power conflict will dominate at the expense of Arctic governance. Spurred by Russia's North Pole seabed flag plant in 2007 and epitomised by Borgerson's 'Arctic Meltdown' seminal Foreign Affairs piece (2008), these scholars support a realist perspective around the 'great game' of inevitable geostrategic competition and potential conflict erupting through a 'scramble for the Arctic' or 'Arctic Goldrush' for economic gains and geopolitical hegemony (Posner, 2007; Cohen et.al., 2008; Younkyoo and Blank, 2011; Blunden 2009; 2012; Anderson, 2009; Borgerson, 2009; Howard, 2009; Zellen, 2009; Sale and Potapov, 2010; Keil, 2014; Johnson, 2015; Spohr, 2018, Duxbury, 2020). Led by the likes of Huebert, they maintain cooperation was built on lack of strategic value and claim its re-emergence will inspire regional power competition, though not necessarily leading to inter-state military conflict (Huebert, 2010; 2019a; 2019b; Huebert and Exner-Pirot, 2012; Huebert et.al., 2012).

Literature recognising elements of truth in both approaches remains 'scarce' (Ohnishi, 2014, p.83), but is not without advocates. These 'inbetweeners' (Olesen, 2014, p.12) recognise the risk of geostrategic competition and spill-over from global issues that could hinder development of regional governance, yet in parallel observe that Arctic instability, competition and in particular conflict would be a lose-lose to even its most contentious actors (Miere and Mazo, 2013, pp.97-98; Zysk, 2011, p.108). This middle ground of 'negotiated exceptionalism' (Macdonald, 2019) acknowledges how shared national interests in environmental protection, trade, tourism, shipping safety etc. all produce selective cooperation, but that this is not a definitive safeguard against the 'great game' of geopolitics reaching the Far North (Petersen 2009; Wegge, 2011; Lackenbauer, 2011; Conley, 2012; Østhagen, 2017; Regehr, 2018; Elgsaas, 2019). Whilst this position requires 'giving up some degree of theoretical parsimony and ontological clarity' (Olesen, 2014, p.12), in doing so it avoids the 'series of false dichotomies' from traditional theoretically-driven approaches (Dunne, 2008, p.271) and places empirical usefulness and 'explanatory power' (Olesen, 2014, p.12) as central.

Literature interpretations of China's rise, in both global and Arctic affairs, is similarly divided. The 'Idealist' view perceives China in pursuit of 'win-win' collaboration for mutual benefits through international cooperation and the status quo, underpinned by liberal institutionalist logics (Johnston, 2003; Nye, 2006; Alexeeva, and Lasserre, 2012; Liu, 2017). The 'China Threat Theory' perceives China's rise as revisionist pursuit of hegemony and power, driven by realist logic (Gertz, 2000; Brzezinski and Mearsheimer, 2005; Mearsheimer 2001; 2010). A fairer reflection of China emerges outside of dogmatic schools of thought, with the 'Pragmatist' view recognising China as a rational, interest-based actor pursuing varying levels of cooperation, competition

and conflict depending on perceived situational gains (Al-Rodhan, 2007; Wright, 2011; Li and Bertelsen, 2013; Carpenter, 2013).

It is from this 'middle ground' that the impact of China's increasing role in Arctic affairs will be assessed. This pragmatism allows for analysis through an interest-based regime theory, which is a less explored analytic lens for Arctic governance (Young, 2012; Wegge, 2011). This facilitates multi-dimensional analysis of the numerous – and sometimes seemingly conflicting – parallel pursuits of state regional national interests under different regimes, and thus for more nuanced and policy-practical research into the impact of China's increasing role in the Arctic.

Methodology

Definitions

The research question presents terminology that must be defined if they are to guide analysis. The increasing 'role' of China refers to their rising regional presence – whether physically, diplomatically, economically, politically or institutionally – and the influence and responsibilities that follow. The 'impact' of this role refers to the change that can be expected because of China's role in the region and the actions or reactions it will prompt from existing Arctic actors and institutions. This period of 'impact' spans from China getting 'ad hoc Observership' in 2007 (Jakobsen and Peng, 2012, p.13) over the short-medium term future to 2040, as by then we can expect the manifestation of the resources and shipping potential that is now only just beginning to change the status quo (Breene, 2017). 'Development of regional governance regimes' refers to how far China's role in the Arctic's enhances states' ability to manage shared challenges within the '*Environmental*', '*Security*' and '*Economic*' regimes (Underdal

1992; Young 1994), and integrate all three towards an Arctic regime complex of effective governance that upholds collective problem-solving, management of differences and produces outcomes of regional-global goods (Young, 2012, p.395).

Analytical Framework

Interest-based Regime Theory

Traditional schools of International Relations theory are too ontology-focused to credibly explain the ever-changing phases of the Arctic (Dunne, 2008, p.271; Østerud and Hønneland, 2014, pp.166-8). Offensive realists may explain Cold War Arctic classical geopolitics; defensive or structural realists have a case for US reaction to China's present hegemonic challenge; liberal institutionalists may come closest to explaining the development of cooperation and 'Arctic exceptionalism' through the advent of multilateralism and international organisations, but over-emphasise the influence of institutions and fail to explain issue-areas of non-cooperation even when they would in theory benefit states (Østerud and Hønneland, 2014, p.157). Constructivists or post-structuralists lose their salience in recommending practical policy by over-emphasis on the interpretivist implications of language, constructions and representations (Ó Tuathail, 1996). Instead, drawing on aspects of both liberal institutionalism and realist logic, Arctic governance is understood through interest-based, situation-structuralist regime complex theory. Regime complex theory refers to a set of distinct essential elements (regimes) of a 'the same issue domain or spatially defined area [the Arctic], that are related to each other in a non-hierarchical manner, and that interact with one another in the sense that the operation of each affects the performance of the others' (Young, 2012, p.394). It assumes states are rational actors pursuing their perceived national interests by participating to lesser or greater degrees

in different regimes (Hasenclever et.al., 1996, pp.183-5). The situation-structuralist approach recognises the 'strategic nature of the situations in which states make choices about cooperation' (Oye 1986; Zurn 1992, 1993; Martin 1993), drawing from more realist state-logic to explain when states decide to create, maintain or develop different regimes based on game-theoretic reasoning of 'likelihood of [a] regime formation' that benefits the national interest (Stein, 1983, p.127-132; Snidal, 1985a, pp.936-939, 1985b).

The *Environment*, *Security* and *Economic* governance regimes have distinct memberships, issue-focuses and are at different stages of formation; combined they reflect the effectiveness of overall Arctic regional governance (Young, 2012, p.395). As China increases its role in Far Northern affairs, analysis of its impact on these distinct regimes individually and in sum will enable conclusions on its overall impact on the development of Arctic regional governance.

Regional-Global Governance

Traditional measures of top-down regionalism or bottom-up regionalisation such as close trading relationships, geographical proximity, shared history, homogeneity and cultural ties (Knecht, 2013, p.3; Griffiths, 1988, p.10) remain largely unmet in the Arctic. Whilst recent emergence of indigenous Arctic unity (Zellen, 2010) and institution-building illustrate potential shifts towards traditional regionalism (Knecht, 2013; Sale, 2008), the unique and vast territorial expanse of the Arctic as a 'region of peripheries' (Young, 2005, p.9) renders it best understood through the 'international region' lens (Keskitalo, 2004).

Whilst the global governance concept remains 'amorphous' (Zurn, 2012), literature definitions can be synthesised to: *the complex series of trans-national multi-*

actor interactions, decisions and cooperative processes that facilitate a multi-level order that can manage collective problems (see Domínguez and Velázquez, 2018, pp.3-5). The combination of the Arctic as a space with multi-faceted interdependent issue-based regimes with global implications; a multi-levelled polycentricity of relevant actors and institutions (see Heininen, 2015); yet one still 'largely intergovernmental' in authority (Ingimundarson, 2014, p.190) makes for difficult analysis. This complexity represents a 'microcosm' or 'subsystem of [the] larger global political system', and in turn analysis of regional governance is best served through a global governance approach (Wegge, 2011; Ohnishi, 2014, p.96), but doing so whilst still acknowledging the Arctic's distinct regional characteristics. Arctic governance remains largely 'state-led' (Abbot, 2012) and in the 'shadow of hierarchical state action' (Ludwig and Kok, 2018, p.4), best understood as unidirectional 'top-down governance' (Kacowicz, 2012, p.7). Resultantly, the following analysis focuses on the impact of the region's great powers on the distinct but interwoven and interplaying *Environmental, Security and Economic* regimes that underpin the overall regime complex that constitutes Arctic governance.

Research Methods:

The research methods chosen feature both primary and secondary sources. States are my main referent object for analysis, so I will explore national white papers and policy positions; speeches and statements by political leaders, and inputs into forums, summits and conferences of multi-lateral institutions to substantiate my analysis. This will be supplemented by a range of secondary literature that contributes to theoretical and empirical understandings of the Arctic, its actors and their role in shaping regional governance patterns. Select data and statistics such as foreign direct

investment, Arctic research funding or militarisation investments all will give credence to the arguments made on China's impact on the different regimes.

This analysis prioritises the actions and reactions of the tri-powers now operating in the Arctic: the US, Russia and China (Huebert, 2019a; 2019b). Whilst investigation of Arctic governance will be augmented by the plethora of other actors (whether other Arctic or non-Arctic states, non-state actors or multilateral institutions), these great power states possess the most ability to shape how regional governance develops in the Arctic by their positions vis-à-vis one another.

In this research, the evidence and data from these sources is cross-examined against the following criteria to assess how China's role will impact the development of regional governance regimes.

1. Chapter One establishes the historic phases of Arctic governance and the current governance context to which China's increasing role will make an impact.

2. Chapter Two combines an adapted version of Bennett and Satterfield's four environmental governance criteria of *effectiveness*, *equitability*, *responsiveness*, and *robustness* (2018, pp.3-6). Table 1 explains how each are used to assess the potential impact of China on the development of the Arctic environmental governance regime.

3. Chapter Three examines the dynamics of changing regional security governance in light of China's increasing role through a selective version of Schroeder's security governance criteria of *war and violent conflict*, *militarisation* (2010) as well as measuring preventive security governance through *Confidence- and Security-Building Measures* (Schaller, 2014). Combined, these criteria and

the datasets used to support them, shown in Table 2, gauges both positive developments towards a cooperative regime and negative developments towards competition or potential conflict.

4. Chapter Four investigates the nascent economic governance in the Arctic and the impact of China's Polar Silk Road Initiative on its development through the *Shipping and Trade Routes* and *Arctic Resources* that will constitute the core elements of any potential future economic regime development.

1. The History of Arctic Governance

To coherently analyse and draw predictions on the impact of China on the development of the Arctic's governance, we must understand its history.

The Arctic was long considered a vast unknown, with only sporadic polar naval exploration or scientific expeditions (Sale, 2008). The 19th-20th centuries gave it geopolitical importance, being central to MacKinder's 'heartland theory' (Sloan, 1999) and then in World War Two for transferring supplies, territorial annexation and conflict (White, 2007; Herring, 1973). In the Cold War, strategic importance meant even 'low politics' was pursued towards geopolitical ends (Østerud and Hønneland, 2014, pp.158-9). The 1973 Agreement on the Conservation of Polar Bears was a 'single-issue' success of Cold War cooperation, laying the foundation for future regional cooperation (Fikkan et.al., 1993), de facto establishing the 'Arctic Five' (Canada, Denmark, Norway, Russia, US) and demonstrating that governance could be achieved despite hostile geopolitical contexts.

The end of the Cold War saw Gorbachev's Murmansk Initiatives de-escalate the Arctic towards governance around common issue-areas (Åtland, 2008), such as

the International Arctic Science Committee (IASC) (Rogne et.al., 2015) which added Iceland, Sweden, and Finland as legitimate 'Arctic states' because of their Arctic Circle location, constituting today's Arctic Eight (Keskitalo, 2004, p.45). Negotiation towards dual IASC boards, with one for all members and another for Arctic states' exclusively (Smieszek, 2015), encapsulated the now reoccurring tension between regional and extra-regional powers in Arctic governance. Driven by smaller states, the Finland Initiative (Heikkilä, 2016) began institutionalisation of cooperation towards holistic 'governance', such as including indigenous groups in collective environmental working groups (Mayer, 2018). This culminated in the Ottawa Declaration and the Arctic Council (1996, 1997, 1998), the now central institution in an Arctic governance characterised by a polycentricity of authority, institutions and actors (Heininen et.al., 2015).

The history of Arctic governance is a history of 'paradigm shifts'; varying levels and focuses of state (dis)interests changing with the zeitgeist of the time (Heininen and Exner-Pirot, 2019). The success of low politics governance in recent years faces another 'transition' due to its heightening environmental, security and economic importance, especially from extra-regional superpowers like China (Hara, 2014a). The impact of China on these governance regimes individually will significantly shape the future of Far Northern governance in sum.

2. China's Impact on Environmental Governance Regime Development

The Arctic's current governance is centred around the environmental regime, with the Arctic Council, IASC and International Arctic Social Sciences Association examples of well-developed, environmentally focused cooperation. China's re-

engagement has largely been on environmental grounds (Jakobson and Lee, 2013, p.4) given the knock-on impacts of Arctic climate change on China, such as repeated ‘airpocalypses’ (Zou et.al., 2017) and flooding (Kimmelman, 2017) threatening domestic political stability. By cross-examining their increasing role against the criteria of *effectiveness, equitability, responsiveness, and robustness* (2018, pp.3-6). China’s short-term impact will widen the regime through internationalisation and deepen although resource commitment, but will detriment it in the medium-term due to the contestation, deadlocks, economic self-interest and potential informalisation they encourage.

2.1 Effectiveness

Effectiveness refers to how far something ‘supports the maintenance of system integrity and functioning’ (see Table 1) and is the criteria in which the Chinese role could have the most sustained impact, given its potential resource contributions and support towards the existing Arctic environmental regional governance regime (SCIO, 2018; Kong, 2018, p.3).

Capacity and Information

In line with their white paper commitment to ‘scientific expedition and research’ (SCIO, 2018), Beijing’s increasing role has included significant contributions in Arctic capacity and information. The Polar Research Institute of China has developed capacity to investigate ‘sea ice, glacial monitoring, and the atmosphere’ (Arctic Institute, 2020). China used their Svalbard legacy to create the Arctic Yellow River Station research centre in 2003 (ibid), whilst funding numerous collaborative centres such as the China-Nordic Arctic Research Centre (2013), the China-Iceland Joint Arctic Science Observatory (Schreiber, 2018), and for a future China-Russia Arctic

Research Centre agreed in 2019 (Devyatkin, 2019). Since 2007 China have conducted various expeditions for 'multidisciplinary comprehensive surveys' (Wei et.al., 2020), adapted or built their own 'Xuelong' (Snow Dragon) nuclear icebreakers (Eiterjord, 2018a; Digges, 2019) and partnered with Russian Pacific Ocean Research Institute (Eiterjord, 2018b), all boosting collective research information available. China's research spending increasingly 'far exceeds the contribution' of even major Arctic states such as the US (Ingimundarson, 2014, p.191, Humpert and Raspotnik, 2012), who have failed to maintain significant Arctic research capacity (Prine, 2018). As scientific cooperation is one of the 'best ways' to reduce shared costs (Huebert, 2013) and crucial for funding research under the 'haphazardly funded' voluntary Arctic Council structures (Bloom, 1999, p.712; Wodiske, 2014), China are filling the relative investment and interest vacuum left by Arctic powers (Dodds, 2012, pp.163-64). Their role will be a key driver in the development of the capacity and information available towards an effective environmental governance regime.

Coordination and Direction

China's increasing influence in 'intermediary institutions' as an indirect governance 'orchestrator' (Abbott et.al., 2014a) will develop coordination and to some extent direction within the Arctic environmental governance regime (Abbott and Bernstein, 2014, p.3; Abbott et.al., 2014b). In the International Maritime Organisation (IMO), China has increasingly leveraged its influence as a 'Class A' policy-making member (Brady, 2017, p.177) towards its 'enthusiasm for environmental protection' (Bai, 2015, p.687; SCIO, 2018), such as the Polar Code (2017) clauses on vessel environmental standards and pollution limits (IMO, 2020). Likewise, Beijing's significant 'influence' (Moynihan, 2018) in the negotiation of the 'Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean' (CAO) (2018)

guaranteed coordination on sustainable use of Arctic fisheries for at the least the next 15 years (Liu, 2018) and extended environmental governance responsibility beyond intra-Arctic states (Moynihan, 2018). The hosting of roundtables around emerging issues in Arctic international environmental law is indicative of Beijing's future 'active role' in legal coordination (Chatham House, 2018). China's increasing role across different intermediary institutions within the environmental governance regime places them in the 'driver's seat' of governance in the Arctic spaces which are not yet highly regulated (Koivurova, 2018; Wye, 2017; Bai, 2015, p.687). Their initiatives so far suggest China's increasing role in coordination and direction will bring partners together towards more a more effective environmental governance regime; prioritising more the international over regional problem-solving mechanisms.

Limitations remain, however, on China's ability to coordinate or direct governance intermediaries that are already in place. Whilst having 'respect' for indigenous groups in principle (SCIO, 2018), there is little impact that China's increasing role will have directly on the likes of the Inuit Circumpolar Council, nor are they likely to recognise Indigenous calls for banning non-consensual fossil fuel extraction (Schertow, 2012) ahead of their bilateral governmental economic relationships (see Chapter Four). Likewise, despite representation there by Heilongjiang Province, China's is unlikely to significantly coordinate or direct the Northern Forum towards better sub-national environmental governance (Brady, 2017, p.178). Despite observer status and keenness to contribute towards Working Groups and Task Forces, US Secretary of State Pompeo's 'doubts about the intentions' of China's environmental endeavours (2019a; Pentagon, 2019) demonstrates how the 'national interest' will impede Beijing's 'overreach' (Moynihan, 2018). A concerted US challenge to China's environmental governance role will hinder regime development

as subsequent political divisions prevent coherent transnational Arctic environmental strategy (Lackenbauer et.al., 2018, pp.69-71; Jakobson, 2010). Whilst not all Arctic states see China's role as threatening (Lasserre, 2010; Campbell, 2014, p.4; Sørensen and Klimenko, 2017) and Arctic Council mechanisms exist to prevent funding and environmental project dominance (Arctic Council, 2013b, Para 6; Moe and Stokke, 2019a, p.43), US misgivings could prevent the development of existing institutions towards a more effective environmental governance regime, though in more unregulated spaces China's role can deliver significant developments.

Accountability and Efficiency

The impact of China's increasing role to develop the *accountability* or *efficiency* of the environmental governance regime remains far less significant. Due to their extra-regional character and commitment not to be 'overstepping' in the Arctic (SCIO, 2018), China cannot act as a direct Arctic enforcer of rules or standards. It relies upon its ability to shape international or regional laws and agreements to develop accountability or efficiency in the regime. This, as discussed, largely depends on the intermediary actor it operates within and on its alignment or contestation with the perceived interests of the US, who act as 'regulatory power' over the direction and shape of Arctic governance (Ohnishi, 2014, p.97).

2.2 Equitability

Equitability refers to environmental governance that 'employs inclusive processes and produces fair outcomes' (Table 1). China's potential impact on these developments are varied; facilitating more extra-regional *recognition* and to some extent wider *participation* within the environmental governance regime, though not necessarily towards *fairer* or more *just* representation of actors within this.

Recognition and Participation

In terms of developments towards improved *recognition* and to some extent *participation*, China's role as a non-Arctic state now granted 'Observer Status' in the Arctic Council (Myers, 2013) is crucial. China's increasing role short-term will impact the environmental regime to develop towards more international and extra-regional 'stakeholder saliency' within Arctic governance (Wodiske, 2014, p.306; Stokke, 2014b; Chircop, 2011, p.14). Whilst unlikely to ever fully 'participate' as equals to Arctic states (Chater, 2016, p.173; Young, 2012, pp.280-282), China's influence in 'setting future agendas' should lead to further development of a more transnational environmental regime (Kong, 2018, p.2), especially with development of an Arctic East Asian tri-lateral agreement with Japan and South Korea (McGwin, 2018; Lanteigne, 2017, p.126; Gong, 2015).

Beijing's initial boost for recognition risks rising amounts of 'deadlock', especially if their rising influence culminates in more substantial powers for extra-regional states in the Arctic Council (Wodiske, 2014, p.326; Willis and Depledge, 2014). Fragmentation of traditional power structures (Young, 2009) risks informalisation towards platforms like the 'Arctic Five', driven by the USA as it defends its 'claims of pre-eminence' and resists China's increasing equitability in regional (Kuersten, 2016) – and to some extent global (Hamilton, 2014; World Economic Forum, 2019) – governance, which it sees at best as 'concerning' and at worst 'aggressive' proactivity (Pompeo, 2019b, Pentagon, 2019). Informalisation towards the Arctic Five (Kuersten, 2015) would detriment all non-Arctic states; the wider Arctic Eight, the indigenous Permanent Participants and the Arctic institutions (Kuersten, 2016; Pedersen, 2012) ability to influence the regime. Their Ilussiat (2008), Chelsea (2010) and Oslo (2015) meetings and two significant yet non-binding agreements

suggests concerns over informalisation 'undermining' the Arctic Council are not unfounded (Nielsson and Magnusson, 2015; Steinburg et.al, 2014, p.10). Even if the US reconciles its concerns over China (Ma, 2019; Hayes, 2017, pp.3-5), the increasing great power logic underpinning the 'Arctic Five-plus-Five' CAO Agreement (Morishita, 2019) still threatens the development of an equitable and representative environmental governance regime.

Justness and Fairness

Regarding *justness* and *fairness*, it is unlikely that China will possess a huge degree of structural impact on the fair distribution of either Arctic legal rights or socio-economic conditions. With the current system allowing selective voluntary contributions towards their national interests, China is unlikely to promote more institutionalised fairness in governance contributions (Bloom, 1999, p.712; Wilson, 2015, p.56,63). They will reinforce the soft law and 'general international law' (SCIO, 2018) status quo reaffirmed in the Ilulissat Declaration (AOC, 2008), rather than promote an Arctic Treaty or legal innovations, as this best serves their interests in internationalisation of the Arctic. Beijing's selective investment in resource rich areas will unevenly distribute socio-economic benefits (Lucht, 2018; Jiang, 2018), often also at the expense of environmental priorities. China's increasing role will worsen equitability in the environmental regime (Rahbek-Clemmensen and Thomasen, 2018, p.29), as selective national – oftentimes economic – interests dictate Beijing perceiving minimal situational-structural value in regime innovations towards justness or fairness (Young, 2009, p.423; Koivurova, and Molenaar, 2010; Young, 2016).

2.3 Responsive

The impact of China on 'Responsiveness' refers to how far they enable development of an environmental regime capable of 'adaptation to diverse contexts and changing conditions' (Table 1). The potential for China's capacity to contribute to the *learning, anticipatory* and *innovative* capacities of the regime starkly contrasts to their role in the fragmentation and limitation of existing institutions *flexibility* and *adaptation*.

Flexible and Adaptable

Whilst without procedural votes, the significant 'pressure' and draw that China offers politically and economically (Rahbek-Clemmensen and Thomasen, 2018, p.10; Henriksen and Rahbek-Clemmensen, 2017) limits the development of a *flexible* or *adaptive* regime due to states increasingly taking China's position into account, rather than the interests of the Arctic environmental regime. Whilst fragmentation towards different forums and governance institutions creates more flexible and adaptive 'dynamic governance' in the short-term (Stokke, 2011), this will detriment the equitability of outcomes in the medium-term, with the interests of great powers like Beijing – as opposed to key stakeholders – shaping the environmental governance regime.

Learning, Anticipatory and Innovation

China's significant resource commitment has considerable scope to develop the *learning, anticipatory* and *innovative* capacity of its environmental governance regime. For example, they have constructed the world's first 5-foot icebreaker able to work in two directions and thus conduct more comprehensive research journeys (SCMP, 2018), begun 'standardisation' of Arctic research technology (Eiterjord, 2018b) through 'a myriad of long- and short-term unmanned research stations'

(Eiterjord, 2019) and are actively sharing their atmospheric and oceanographic monitoring data (ibid). This increasing contribution to Arctic 'knowledge-building' (Koivurov et.al., 2019; Bertelsen, 2018) will be an invaluable 'win-win' (SCIO, 2018) towards *anticipating, learning* and *innovation* in the regime to prepare it to cope with coming environmental changes.

However, the restructuring of China's Arctic activity under their Ministry of Natural Resources is indicative of the hollowness of their development of the environmental governance regime (Eiterjord, 2018b). Beijing's synonymy between environmental and economic research (Digges, 2019; Li and Bertelsen, 2013) may hinder the regime by deprioritising the environment towards its own definitions of 'rational use' (SCIO, 2018) of the Arctic for its medium-term economic interests (Kopra, 2019). Chapter Four explores their rising fossil fuel extraction (Filimonova, 2017); pursuit of minerals (Rosen and Thuringer, 2017, pp.54-56) and 'shipping and seismic exploration' (WWF, 2018, p.3), all of which drive 'Arctic amplification' (Mark and King, 2013) towards environmental degradation. Beijing's 'opportunistic adaptation' (Kristoffersen, 2014; 2015) prioritises the potential 'economic benefits of climate change' (Kristoffersen and Langhelle, 2016, p.34) and will worsen Arctic pollution, ecological impact and ice-melting trends. China's impact on the environmental governance regime will thus be as a significant contributor to the detrimental 'changing conditions' that require increasing environmental 'responsiveness' in the first place.

2.4 Robust

The 'Robustness' of the environmental governance regime refers to whether its 'functioning institutions persist, maintain performance and cope with crises' (Table 1). In this sense, China's broad status quo support should contribute significantly to

regime legitimacy and polycentricity at an international level, but to the detriment of regime subsidiarity.

Legitimate

Reflecting global governance patterns, China's role is not 'revisionist' (Koivurova et.al., 2019, p.11; Morse and Keohane, 2014) but pursues mutual 'respect' (SCIO, 2018; Grieger, 2018, p.4) vis-à-vis the status quo (Stephen, 2017, pp.490-491). China's accession to Observer in the pre-eminent governance institution of the Arctic Council (Myers, 2013) – accompanied by criteria recognising sovereignty rights and compliance with the existing institutional and legal frameworks already in place (von Uexküll, 2012) – gives credence to the white paper position that it 'highly values' the Council as the 'main intergovernmental forum in Arctic affairs' (SCIO, 2018). China not pursuing an Arctic Treaty (McGwin, 2020), conceding in UNCLOS to the right of Arctic states to administer the Arctic Ocean (Rainwater, 2015, p.144) and relying on revote approval for observer status every four years (Arctic Council, 2013a, p.13) all suggest China's role will continue legitimacy-building for the international laws and soft law customs that have been cultivated in previous decades towards environmental cooperation and protection across the regime (Exner-Pirot and Murray, 2017; Wilson, 2015, pp.56-59).

However, recent US-antagonism could exclude both China and climate change from Arctic environmental governance agendas, which risks China and other states to starting 'another club' (Koivurova, 2020; Eide, 2013), such as strengthening the 'Arctic Circle' forum which Beijing has already hosted (Brady, 2017, p.22), further institutionalising the Polar Silk Road (Kuo, 2019) or more bilateral agreements - to the detriment of a robust and effective environmental regime. The US perception of its

wider national interest to be in continuing this 'strategic competition' with China on a regional basis (Koivurova, 2019) is the only stumbling-block preventing short-medium term substantial gains in the regime legitimacy and robustness that should be delivered by China's increasing role.

Nested

In terms of nested decision-making, China's increasing role will limit the development of governance subsidiarity. China's national interest in the short-medium term is regime internationalisation (Jiang, 2014; Rainwater, 2015), and in turn will use their influence to promote the international-level legislation, institutions and agreements around environmental matters (Kong, 2018, pp.7-8). The global implications of the Arctic environment are its own source of legitimacy (SCIO, 2018), and to allow prioritisation of lower levels of problem-solving – even if more effective for the environment – would undermine its credibility and orchestration within the environmental governance regime (Moynihan, 2018; Arctic Institute, 2018).

Polycentric and Connected

In terms of the regime's polycentricity and connectivity, China is a committed participant across various forums, institutions and agreements in environmental governance such as UNCLOS, the various Seabed groups, the International Maritime Organisation or Arctic Circle Assembly and Arctic Council (Brady, 2017, pp.16-32; Magnusson, 2015). This diversifies the centres of governance authority, preventing reliance on one institution to provide environmental order. This avoids total regime deadlock should one forum have difficulty and deepens the states' interconnectedness through duplicity of cooperation. However, US scepticism to China's involvement in regional forums jeopardises the 'Rovaniemi Spirit' of 'negotiated exceptionalism'

(Koivurova, 2019; Exner-Pirot and Murray, 2017) continuing to govern the environmental regime, with the perception of China through a competitive great power lens (Pence, 2018; DoD, 2018, p.2) damaging connectivity and driving polycentricity towards ineffectiveness, bilateralism or diverging priorities, rather than shared environmental problem-solving.

Summary

Trends emerge across ways in which China's increasing role will impact on the environmental governance regime. Their ability to improve effectiveness and robustness largely depends upon the reaction of the US, as resistance is likely to undermine the depth of the contributions China's beyond recent initial advancements. Medium-term risks of informalisation and fragmentation will emerge if the US continues to perceive China's increasing environmental role as a threat, whilst Russia is less relevant to the environmental case as largely a status-quo and China-favourable environmental governance partner (Ohnishi, 2014, p.97). Environmental governance is likely to become increasingly internationalised because of China, creating more equitable extra-regional representation as the region becomes increasingly global, at the expense of the existing intra-regional forums, smaller states and non-state actors' ability to shape the environmental governance regime. China's economic prioritisation will paradoxically drive demand for more responsiveness and resilience in the medium-term. Whilst in some ways their investment will boost environmental governance capabilities, their role is likewise one of the major catalysts for why these improvements are required in the first place due to de-prioritisation of the long-held environmental-focused Arctic governance for more 'business-orientated' goals (ibid; Holroyd, 2014).

3. The Arctic Security Governance Regime and Re-emerging Multi-polar Power Politics?

Whilst wider interpretations, such as human or environmental security, have become increasingly popular (Kalliojärvi, 2019; Heininen, 2019), the Arctic debate concentrates on whether traditional state-led '[geo]politics is back' (Stephen, 2017, p.498). As 'high politics' national interests rise (Brutschin and Schubert, 2016), the 'New Arctic Strategic Triangle Environment (NASTE)' (Huebert, 2019b) between China-Russia-USA sits 'between militarisation and disarmament' (Exner-Pirot, 2019). The Arctic sits on a precipice that will either manifest in a security governance regime capable of managing rising armament peacefully or a deterioration towards traditional security dilemmas and balancing acts (Young, 2011; Åtland, 2014).

Chinese commitment to 'not be absent' from Arctic affairs and 'to participate' in the development of Arctic governance indicates they will influence the security governance regime. Despite the white paper not directly referencing security (SCIO, 2018), Chinese national laws, military leaders and commentators are increasingly recognising the need for a security role (Yang, 2018; MoND PRC, 2017; Li et.al., 2014) to uphold and protect its medium-term regional economic interests (see Chapter Four; Havnes and Seland, 2019). Assessing the impact of Beijing's increasing role against the criteria of: *Confidence and Security Building Measures, Militarisation, and War and Conflict* suggests that they will contribute to rising East-West tensions that will prevent regime development, but in a minor way compared to the US and Russia.

3.1 Confidence and Security Building Measures

'Confidence and Security Building Measures' (CSBMs) are preventive diplomacy tools that minimise 'military arbitrariness [...] misleading threat perceptions [and] military driven tensions and accidents' through transparency, openness and communication (Schaller, 2014, pp.1-2). Subsequent 'mutual confidence' [reduces] the likelihood of violent confrontation' (Maiese, 2003) and 'pave[s] the way for more peaceful relations' through organisations, agreements, treaties or codes of conduct (ibid). CSBMs in *disarmament, information sharing and joint military exercises* (Heininen et.al., 2019, p.3) are key gauges of security governance regime development and will demonstrate how China's role is likely to impact upon it.

Disarmament

For the most part, disarmament in the Arctic has referred to denuclearisation (Schaller, 2014, p.2), due to its historic inaccessibility, low conventional weapons prevalence (Hara, 2014b, p.10) and strategic importance for nuclear weaponry (Wezeman, 2012, p.8). The US and Russia possess 90% of the world's nuclear weapons and the Arctic is key for hosting general nuclear-powered submarines (SSNs) and those carrying strategic range ballistic missiles (SSBNs). Russia's Kola Peninsula hosts the bulk of its arsenal and its Northern Fleet bearing seven SSBNs, whilst almost all nuclear attacks on the US would need to pass through the Arctic (DoD, 2018a; Exner-Pirot, 2019; Regehr, 2019, p.276). Denuclearisation through a 'nuclear weapons free zone' (NWFZ) would begin confidence-building towards demilitarisation, facilitating security governance regime development through trust-building (Axworthy 2012; Buckley 2013; Prawitz 2011). Yet NWFZ initiatives by Iceland (Perry and Anderson, 2012); indigenous groups (Regehr, 2018, p.279) and civil society (Avery, 2013; Wallace and Stephen, 2010) have been fruitless, and Russian

is modernising its Arctic nuclear capacity whilst the US continues bi-annual Arctic nuclear exercises (ibid, p.278-81).

China's increasing role maintains or even extends nuclear armament trends, rapidly growing its nuclear capacity, currently owning six SSBNs (Patrick, 2018), constructing 'two new classes of nuclear-powered submarines' (Kristensen and Norris, 2018, O'Rourke, 2017) and investing in nuclear weapons innovations (Talmadge, 2019). CSBMs rely on the reduction of private information. Recent Chinese naval Arctic tours potentially transporting unannounced nuclear armaments, combined with long-term commitment to pursue their rightful interests (SCIO, 2018), risk deepening threat perceptions towards Chinese Arctic marine activity (Tiezzi, 2015; Huebert, 2019b) from the US (Stewart and Ali, 2019) and even Russia (Guo and Wilson, 2020). China is also disinterested in any NWFZ that risks more nuclear threat closer to their Pacific national priorities (Regehr, 2019, p.282). Resultantly, both Beijing's disinterest and regional Chinese nuclear threat perceptions – whether real or perceived – combine to undermine security governance regime development built on disarmament.

Information Sharing

Key to CSBMs as structural preventative diplomacy is the development of information sharing. In the Arctic, this would include location-specific information on military equipment or forces, prior warning for manoeuvres and exercises and 'person-to-person' military command meetings (Schaller, 2014, p.8). This manages threat perceptions through transparency and is consistent with interest-based bargaining principles (Levy and Thompson, 2010, p.68; Mitzen and Schweller 2011, p.12; Fearon, 1995, p.386). The Arctic powers, until recently, avoided developing hard security

governance to maintain 'soft' cooperation success (Elegaas, 2018; Koivurova, 2010, p.153). The Northern Chiefs of Defence Conference (NCDC, 2012) began institutionalising information sharing to manage Arctic Eight military-security disagreements (Strader, 2012; Klimenko, 2019, p.13), whilst the Arctic Security Forces Roundtable (ASFR) hosts the military commanders of the Arctic Eight, France, Germany, the Netherlands and the United Kingdom to discuss common security issues (Stephen, 2016).

Since the 2014 Crimea crisis, West-Russia hostility has undermined nascent information sharing developments due to 'ever-growing mistrust and confrontation', with both pursuing Arctic conflict simulations, GPS signal jamming and 'snap' military exercises (Depledge et.al., 2019; Tingstad, 2020). China's increasing role risks only encouraging further 'spill-over' of international security issues, to the detriment of its potential CSBMs and regime development (Rahbek-Clemmensen, 2017). Their increasing partnership with Russia post-2014, even if based on weak Sino-Russian foundations (Stronski and Ng, 2018), is increasingly espoused as a 'dual threat' (Havnes and Seland, 2019; Guo and Wilson, 2020) not only by the US (DoD, 2019), but by numerous other Arctic states such as 'Denmark, Sweden, Norway' (see Havnes and Seland, 2019). With Russia's expulsion, the NCDC has become an information sharing just regarding the threats posed by Russia and, increasingly, China (Vandiver, 2019). This builds East-West antagonism and undermines the development of an inclusive Arctic security governance regime capable of managing distrust and disputes.

Whilst China threat theory presents a short-term hinderance to information sharing, Beijing's 'scepticism' towards Russia's Arctic militarisation (Havnes and Seland, 2019); Sino-US shared interests in freedom of navigation (ibid) and medium-

term interests in an effective security governance regime (SCIO, 2018; Arctic Institute, 2018) could see the Sino-Russian partnership erode, to the benefit of Arctic CSBMs. If China leverages its increasing Arctic appropriate military resources to secure a place alongside other non-Arctic (but Arctic capable), non-Western powers into the ASFR, this would significantly develop the security governance regime towards a more stable 'division of authority, strategic alignments, and state coherence' (Tingstad, 2020; Macdonald, 2019, pp.1-2; Myers, 2016) through a widening of multi-lateral security governance beyond the West-Russia dichotomy (van der Toft, 2019; Rahbek-Clemmensen, 2017). The precedent for China and other non-Arctic states is set by the UK's membership and Arctic military exercises (Harris, 2016). A best case scenario would be information sharing culminating in an 'Arctic Military Code of Conduct' built on a the 'Arctic Five-plus-Five' model (Morishita, 2019), as this would institutionalise a 'dialogue mechanism' for open communication and collectively define 'unacceptable' military behaviour in the Far North (Depledge et.al., 2019). This would build confidence and ease threat perceptions even if the Arctic continues armament (ibid).

Yet, this relies on the US as regional 'regulatory power' reassessing its Arctic national interests (Ohnishi, 2014, p.97) because many Arctic-interested states rely on the US security-umbrella (Hara, 2014b, p.9), so will not contribute to a security regime development which is not aligned to Washington's interests. The US perceives their Arctic interests in its 'managed instability', because a stricter security governance regime would further limit their regional influence and unrestricted pursuit of national security interests (ibid). Combined with 'America First' anti-multilateralism (Pompeo, 2019b); perceptions of the Arctic as an 'arena of global power and competition' (DoD, 2018b, p.2; US Coast Guard, 2019; Sengupta, 2019) and commitment to an 'Arctic [...] governed by the actual nations of the Arctic' (Trump, 2019) suggest China's

increasing role will not lead to innovative developments in the regime. Instead, it will worsen existing US distrust by adding a new military power into the Arctic 'arena' (van der Togt, 2019; Hara, 2014a, p.39), risking entrenchment into 'East versus West' sub-regional arrangements (Macdonald, 2019, p.1) due fundamentally to US national interests directly contrasting to the development of a China-inclusive Arctic security governance regime.

Joint Military Exercises

Joint military exercises (JMEs) are CSBMs that build crucial mutual 'trust' through military-military cooperation and simulating scenarios (Roud and Gausdal, 2019). Historically, the Arctic has had successful search and rescue (SAR) and emergency response JMEs (Exner-Pirot, 2012) between its 'two camps' of Russia and the West, such as various renditions of 'Pomor' and 'Northern Eagle' (Elgsaas, 2019, pp.28-30; Conley et.al., 2012). Recent efforts have institutionalised JMEs into the semi-military Arctic Coast Guard Forum (ACGF) which was established 'to foster safe, secure, and environmentally responsible maritime activity' between the Arctic Eight (Elgsaas, 2019, p.29; ACGF, 2017, 2020) and the Arctic Search and Rescue Agreement (2011) legally-binding states to certain SAR standards - the first hard law development of the Arctic Council (Luszczuk, 2014). However post-Crimea, military exercises conducted by both Russia and NATO are increasingly antagonistic (Depledge et.al., 2019) rather than joint or cooperative. China's role is unlikely to have much impact on intra-regional military cooperation/agreements such as on SAR or the ACGF. However, whilst not yet deployed in the Arctic, the repeated involvement of thousands of Chinese military personnel in JMEs with Russia may represent a Sino-Russian CSBM, but demonstrations of genuine military partnership will only worsen

the 'East-West' Arctic divide towards US-led regional distrust (Weitz, 2015; Dibb, 2019) and derail the development of the security governance regime.

3.2 Militarisation

Traditional measures of 'militarisation' in security governance are 'a state's military expenditure [and] its military capabilities'; gauging propensity or aptitude for 'military conflict and escalation' (Schroeder, 2010, p.18). The development of the Arctic security governance regime depends on how far China's attributes in both military expenditure and region-specific capabilities are perceived to coincide or compete with the regional great powers' national interests.

Military Expenditure and Capabilities

The Arctic does not feature on most assessments of region-specific militarisation due to its unique 'rimland' characteristics (Østerud and Hønneland 2014, p.172). However, military expenditure is a useful barometer of the risks Arctic militarisation presents to the development of a security governance regime. The USA has the world's highest military expenditure, increasing 14% from 2007 to 2018, whilst Russia's increased 29% across the same period to rank 4th (SIPRI, 2019). In the more holistic 'Global Militarization Index' (GMI), their rankings – combining *Military Expenditure Index*, *Military Personal Index* and *Heavy Weapons Index* scores – are consistently high across the same period, with Russia particularly militarised at 4th to then 6th highest (BICC, 2019) compared to the US's 33rd to 31st. Both are exposed as considerably military-prone and capable actors by their relative positions, hence tension over armament is expected. China, by comparison, shows significantly more military expenditure growth at 173% to reach 2nd place (SIPRI, 2019), though its GMI scores of 91st to 94th shows this change minimally impacts its overall militarisation as

a nation (BICC, 2019). Its military growth is instead consistent with what one might expect for the world's rising economic superpower rather than of a nation with particularly aggressive military ambitions (Sonmez Atesoglu. 2013). Even for alarmist critics, this bodes well for the Arctic security regime; China is unlikely to present a revisionist military power threat (Huebert, 2019b). As of yet, 'there are no signs that China's military presence in the region has in any way increased' (Kopra, 2019); Arctic capacity was not mentioned in its latest military modernisation strategy (PRC, 2019), nor its Arctic white paper (SCIO, 2018). At face value, China's considerable expenditure and capabilities should not present significant regional threat to the development of the security regime.

Dual-use Military-Civilian Capabilities

Yet, narratives over the 'Chinese dream' and 'newly assertive foreign policy' (Zhang, 2015, p.9) as well as China flagrantly ignoring the South China Sea resolutions which were bound by the same legal logic as the Arctic (Peng and Wegge, 2014, SCIO, 2018) has engendered threat perceptions among Arctic actors around China's true intentions. Its South China Sea claims were justified by supposed environmental national interests (Johnson, 2015, p.107), yet Beijing have since constructed artificial islands to control strategic border locations and potentially 'billions of barrels of oil' (ibid). Whilst it would be an overestimate to assume China's approach would apply similarly to the Arctic, (Østhagen, 2017, p..240-1), the dual-logic behind developing civilian capabilities for long-term military interests will damage the development of not just the security regime but Arctic governance more broadly. Distrust emerges over China's increasing civilian role; its investments in Swedish satellite data (FOI, 2019), its increasing number of scientific nuclear icebreakers (Huebert, 2019b, p.84) and its mapping and remote monitoring for environmental

research (Havnes and Seland, 2019), all present a 'dual-use' threat that could be turned against Arctic powers (Humpert, 2019; Laskai, 2018). Whether well-founded or not, US-led assumptions that 'China's pattern of aggressive behavior elsewhere will inform how it treats the Arctic' (Pompeo, 2019b; ISAB, 2016) means China's increasing role impedes the development of a more spill-over resilient multi-lateral security governance regime, undermining the positive impacts it could have on the development of the environmental regime.

3.3 War and Violent Conflict

Traditional indicators for an actor's propensity for *war and violent conflict* include involvement in internal and external military crises and how they respond to and how often they are involved in foreign and military policy crises (Schroeder, 2010, p.12). In the Arctic, this is a gauge of the likelihood of Arctic powers to turn to the use of war and conflict in the resolution of crises or tensions as the region 'heats up' (Hara, 2014b).

Since 2007 in Global Peace Index (GPI) scores, both the USA and Russia have deteriorated from 96th to 128th and 118th to 154th respectively (IfEP, 2019). From the UCDP dataset we can see Russia has been the first or secondary actor in 21 separate conflicts, compared to the US' 95 (Pettersson et.al., 2019), notably in the ICB dataset up to 2015 on foreign policy and military crises, Russia's 3 incidents have all prompted major responses of '*multiple including non-violent military acts*' to '*multiple including violent military act*', as did the 4 out of 5 of the US major crises responses (Brecher et.al., 2017). Combined, they demonstrate two actors with a tendency towards major reactions to crises and regular involvement in war and violent conflict. Yet much of these tendencies play a secondary role in existing conflicts, almost completely

excluding 'Great Power' or 'Superpower' sources of threat (Pettersson, et.al., 2019); important because regional peace relies on the two Cold War powers. This is likely why the perceived regional risk of direct war and conflict 'remains low' for both the US (USGAO, 2018) and Russia (Heininen et.al., 2014) even as geopolitical tensions rise.

The rise of China for some presents a conflict-risk over their growing need for limited natural resources, for non-US controlled 'sea lines of communication' (SLOC) (Lanteigne, 2016, pp.153-5) or for its pursuit of geopolitical hegemony (Huebert, 2019b). Yet, since 2007 China has been and remains more peaceful than the Cold War powers despite its rank falling from 60th to 110th in the GPI (IfEP, 2019); other than minor UN multi-lateral secondary involvements in Mali, in the UCDP only registered one conflict as the primary actor (Pettersson et.al., 2019); whilst its singular foreign policy crisis only prompted a '*verbal act*' as its major response (Brecher et.al., 2017). Whilst China's increasing presence might intensify tensions toward a NASTE (Huebert, 2019b), war and violent conflict would be a 'nightmare scenario' for China (Lanteigne, 2016, p.155) because securing stable peace and a better security governance regime facilitates pursuit of their environmental and particularly economic Arctic national interests (SCIO, 2018). Thus, the likelihood of war and violent conflict is unlikely to be significantly increased by China and for the most part is unlikely at all given long-standing interest-based avoidance of direct great power conflict.

Summary

The increasing role of China in Arctic affairs is going to have a marginal, though largely negative, impact on the development of the security governance regime. They are unlikely to encourage or react to tensions with violent conflict, and their militarisation appears appropriate rather than particularly threatening or in pursuit of

regional hegemony. However, in building their military partnership with Russia, the lack of transparency over their Arctic-capable vessels, and dual-use civilian-military Arctic capabilities build a threat perception for the US and hinder the potential for positive CSBMs. With the US perceiving 'managed instability' as in its national interests (Hara, 2014b, p.1) and Russia pursuing militarisation as part of its great power 'status-seeking' (Grajewski, 2017), China's rising but considerably lesser security role is only likely to deepen existing East-West security trends of the Arctic rather than impact it towards effective regime development. .

4. The Polar Silk Road and the Arctic Economic Governance Regime

As an 'international region', traditional criteria of economic regional integration do not apply, yet due to regional focus, nor do traditional indicators of global governance (Albert and Vasilache, 2018). Yet, this is not to say the Arctic economic regime does not have key issue-areas upon which China has an increasing influence and through which its impact on governance development can be assessed. Both *Shipping and Trade Routes* as well as *Arctic Resources* are key facets of the Arctic international economic governance regime, where development of cooperation and collective problem-solving is embryonic but has potential to grow as global national economic interests in the region rise (Frederiksen, 2019). They are likewise two of the main foundations of China's 'Polar Silk Road' (PSR), with 'Arctic-related cooperation under the Belt and Road Initiative' (SCIO, 2018) – a key ambition because of the region's self-confessed potentially 'huge impact on the energy strategy and economic development of China' (ibid). Whilst important, issue-areas such as tourism and agriculture are not included due to their more intra-regional nature and less pre-

eminence in Chinese strategy and influence, whilst their overlapping constructive role towards Arctic environmental-economic governance of fisheries resources has been covered in Chapter 2.

4.1 Shipping and Trade Routes

Arctic Shipping Governance

Governance of shipping across Arctic waters as crucial to the changing nature and needs of Arctic governance has been touched upon previously (Stokke, 2012), with key developments such as the Polar Code (2017), SAR (2011) and ongoing seabed and EEZ dispute resolution through UNCLOS (Carlson et.al., 2013). By 2040 there is expected to be consistently viable commercial shipping across the Northern Sea Route (NSR), and to a lesser extent the wider North-west and -east Passages (NWP/NEP) (see Figure 1). Whilst future trans-polar shipping potential goes beyond this study, it represents a long-term pull for China's Arctic interests (Melia et.al., 2016; Bennett, 2019). The development of the economic regime relies on successful cooperation around accessibility to shipping lane governance (Stokke, 2013). Yet sovereignty and maritime borders present long-standing tensions over freedom of navigation, the US-Canada dispute over the Beaufort Sea, US-Russia over the Bering and Chukchi Seas and continued disagreements over the legal status of the NWP/NEP (Rothwell, 1996).

Beijing's proactivity in developing governance in Arctic waters can largely be attributed to medium-term Arctic shipping interests (SCIO, 2018; Monyihan, 2018) as short-term shipping viability remains limited (Moe and Stokke, 2019b). As the largest and increasingly 'polar capable' maritime nation in the world, they have the indirect economic soft power and national interests in developing better Arctic shipping

governance in the medium-term (Menon and DNV GL, 2018; Huebert, 2019b, p.84). International shipping constitutes 46% of GDP and China's short-medium term economy will continue to be heavily export-orientated (Kuo, 2019; Gosnell, 2018). Diverse and secure shipping is paramount to their national interests, especially given US military dominance or rampant piracy in other SLOCs such as the Suez and Panama Canals, the Strait of Malacca and the Gulf of Aden (ibid; Sun, 2014). The Arctic offers shorter shipping distances, cutting trip times by at least 40% from China to Europe and the US East Coast (Chen, 2012, p.361; Chircop, 2014, pp.270-2; Jakobson, 2010). China will not attempt to directly influence intra-Arctic state disputes, explicitly agreeing to 'not be over-stepping' in Arctic affairs and having little interest in doing so (SCIO, 2018; Kong, 2018). Yet their white paper emphasis on international law and agreements (SCIO, 2018) makes them unlikely bedfellows with the US over freedom of navigation, particularly in their dispute over the NWP with Canada (Lajeunesse and Huebert, 2019). Furthermore, despite Russia encouragement of Sino-Russian collaboration on the NSR/NEP to boost their Arctic trade prospects (MNRR, 2019), China's lack of reference to Russia when using these shipping lanes (Li, et.al., 2014) – increasingly outside of Russia's EEZ – to deliver heavy industrial goods and energy resources in summer should concern their Eastern counterparts (Goble, 2019; Bennett, 2015). Due to increasingly asymmetrical Arctic economic relations (Jaffe et.al., 2015), reliance on Beijing for its crucial Arctic energy extraction interests (Laruelle 2014, p.254) and continued sanctions from the West (CRS, 2020), Russia could be coalesced towards less dominant claims over the NSR if they are to achieve their Arctic trade ambitions (Sun, 2018; Bennett, 2017; Klimenko, 2014). Thus China's increasing role will indirectly pressure – alongside the US and other East Asian Arctic-interested powers (Moe and Stokke, 2019a; Holroyd, 2014) – Arctic shipping

governance in the medium-term towards convergence at an international level, such as the IMO (Huebert, 2018; Lajeunesse and Huebert, 2019). It is only through constructing a mutual international agreement, such as over shipping reporting requirements in both passages accompanying an acceptance of international rights to access (ibid), that the economic potential of Arctic commercial shipping will be unlocked for the best interests of both its littoral and non-Arctic interested parties (Lackenbauer et.al., 2018; Hara, 2014b, p.11; Gosnell, 2018).

Investment and Infrastructure Projects

Yet, parallel to potentially driving the multilateral development of maritime cooperation in the economic governance regime, the PSR is simultaneously developing bilateral relationships between China and some specific Arctic state partners through investment and infrastructure. China's white paper explicitly states this dual-track pursuit of Arctic 'multilateral and bilateral channels' as in its national interests (SCIO, 2018), with the latter largely pursued by 'economic diplomacy' with strategic partners in the Far North including and beyond the aforementioned Sino-Russian relationship (Lanteigne, 2014, p.13). From 2012 to 2017, China invested \$89.2 billion in Arctic projects, a substantial amount considering the Arctic economy in total is worth around \$450 billion, much of this concentrated to certain investment partners and associated infrastructure projects (Rosen and Thuringer, 2017). Finland have agreed to their part in the 'Finnish Polar Silk Road': co-operating on expertise in shipping, geothermal energy and the construction of icebreaker *Xuelong II*; reciprocal Presidential visits; considerable plans for co-investment in infrastructure such as the Arctic Railway, the Helsinki-Tallinn tunnel (Chen, 2020; Koivurova et.al., 2019) and 'Arctic Connect' submarine communication cables; this only worsens fears over the China's 'military-civilian fusion' as it risks giving them intelligence gathering capabilities

across the Arctic (Nilsen, 2019a; Juris, 2020). Greenland has had numerous proposals for infrastructure projects such as airports and old naval bases; extensive development of Chinese investment in resource extraction and mining projects; and received \$4 billion in Chinese investment, some 185% of their GDP (Matzen, 2017; Jiang, 2018). This has led to market-orientated emergence of deepening diplomatic ties (Shi and Lanteigne, 2018), prompting interjection against Beijing's commercial advances on defence and foreign policy grounds from the Kingdom of Denmark (DDIS, 2017) and the US attempting to 'buy' Greenland from Denmark for its strategic value, as it hosts the US' and NATO's last Arctic base presence at Thule (Kopra, 2019). Perhaps most crucial is their increasingly close geopolitical and economic relationship with Iceland, their 'northern entry' to Europe and the Atlantic (Gudjonsson and Nielsson, 2015). Iceland was the first Arctic state to enter into a free trade agreement with China in 2013; has held discussions over a Chinese-funded Asia-Europe logistics hub and major transshipment port (Guschin, 2015); received a \$500 million currency swap in 2010 (Ward and Hook, 2011) and has been a proactive actor in Iceland inclusive 'Arctic Circle Assembly' initiative (Nilsen, 2019b).

Akin to Western fears around potential 'debt-trap' or 'dependence' diplomacy in China's policies elsewhere (White House, 2018; Pence, 2018; Carmody, 2019), the US is incredibly wary of the increasing 'political pressure' China can place on strategic smaller states (Kopra, 2019). '[P]olitical sovereignty' risks being jeopardised due to economic leverage over Arctic investment recipients making decisions based on Beijing's national interests (Rosen and Slayton, 2017, p.53). The 'divide and rule' power of China's 'bilateral diplomacy' (Peng and Wegge, 2015) will prevent development of a cooperative Arctic economic governance regime. It will undermine US trust in multilateralism because the smaller Arctic powers will be increasingly

caught between divergent security-economy allegiances to Washington-Beijing respectively. Nascent regime developments such as the Arctic Economic Council (2014) risk being interpreted as a vehicle for 'the PRC's foreign ambitions' through their considerable investment role (Gushin, 2015). It is also unlikely Beijing would subscribe to full transparency over its Arctic investment intentions as this would limit the pursuit of its national interests, preventing crucial medium-term regime innovation towards an 'Arctic Development Code' or 'Arctic Development Bank' (Rosen and Thuringer, 2017, pp.69-72). With the US having 'few, if any, core interests in the high north', the obstruction of Chinese influence represents a more important interest than the development of a cooperative Arctic economic governance regime (Rahbek-Clemmensen, 2017, pp.6-8; Koivurova, 2020; Orttung and Weingartner, 2019).

4.2 Arctic Resources

Oil and Gas Exploration

The Arctic contains significant amounts of the global undiscovered crude oil (13%) and natural gas (30%) reserves (see Figure 2; USGS, 2008). Most reserves reside offshore but within states EEZs (ibid), whilst most continental shelf limits have been addressed (Jares, 2009) and varying – largely difficult – commercial feasibility of extraction will remain due to the harsh conditions of the Arctic (Gulas, 2016). This leaves little substance behind the apparent 'scramble for the Arctic' posing a major threat to the development of its governance regimes, even for conflict school scholars (Huebert, 2019b, p.81).

The economic growth of China – and the Chinese Communist Party's political stability and longevity – is 'deeply dependent on energy imports and [is] expected to become more dependent in the future' (Li and Bertelsen, 2013), already being the

largest global energy consumer (Kong, 2018, p.10) and one seeking to move its energy transportation away from vulnerable SLOCs (Tata, 2017). The political and economic costs of climate change shifts China's 'economic priority from a war against poverty to a war against pollution' (Zhong, 2016; Crane and Mao, 2015), turning Beijing towards cleaner natural gas. The restructuring of its Arctic activity under the Ministry of National Resources (MNR) reiterates how oil and gas underpins its Arctic endeavours (Eiterjord, 2018b). China's hedging strategy avoids over-reliance on one energy partner (Jaffe et.al., 2015), so whilst the Sino-Russian partnership may have major projects i.e. Yamal-LNG and Arctic-LNG 2 (Kong, 2018, p.1), China pursues other Arctic energy relationships such as with Canada (Daly, 2014), Iceland (Hallsson, 2019) and, prior to the US-initiated 'trade war' that damaged LNG relations (Johnson, 2018), the US (Jaffe et.al., 2015). China's increasing role should promote regime developments around the safety and consistency of offshore energy trading between Arctic-exporters and non-Arctic importers due to mutual national interests in future Arctic extraction, which may become 'politically unacceptable' and commercially avoided if emergencies or spills damage marine resources (Berkman and Vylegzhanin, 2013, p.25). This could culminate in furthering 'hard law' towards Arctic harmonisation on offshore oil and gas regulatory efforts such as *strategic environmental assessments, same-season relief wells and emergency preparedness* (Pelaudeix and Basse, 2017, pp.55-6; Ebinger et.al., 2014, p.36-40). However, these regime developments will depend on the Sino-American re-prioritisation of their considerable potential LNG relationship (Ma, 2019) over extra-regional trade war principles that are bringing 'resource diplomacy' into the Arctic (Herberg, 2017) and jeopardising potential for developments in the economic governance regime.

Mining and Mineral Resources

The Arctic is home to significant reserves of mineral resources, including 'strategic mineral deposits' that are rare or crucial to the manufacture of goods in the global economy (Krivovichev, 2019, pp.192-6; Bortnikov et.al., 2015). The Arctic mines high concentrations of some of these mineral resources, and they constitute a considerable feature of the Arctic regional economy (Tolvanen et.al., 2019). Large reserves remain untapped and more will become available as the ice retreats, though with considerable extraction costs (MiningExaminer, 2014). China's export-orientated economy continuing its trajectory towards being the largest mineral consumer within five to ten years, combined with considerable domestic environmental concerns, will lead to a deepening reliance on international imports for certain Arctic-abundant minerals such as nickel, zinc, iron ore and copper (Farooki, 2018, pp.3-4; Lindholt, 2006, pp.30-34). The uneven distribution of these resources (see Figure 2) has prompted a heavily bilateral pursuit of their 'right' to lawful mining (SCIO, 2018), using government owned, affiliated semi-private, or directed private companies to mine in Greenland (Andersson et.al., 2018), Canada (Friedman, 2018) and in future, Russia (Fedorinova, 2019). Beijing's competition over 11 key minerals with the US (Gulley et.al., 2017) will deepen competitive Arctic bilateralism, to the detriment of economic regime development and wider governance cooperation (Ohnishi, 2014, pp.96-7). The commercial benefits to lower environmental mining standards (Farooki, 2018) mean China's increasing role is unlikely to promote harmonisation or enforcement of higher Arctic regulatory mining standards, resulting in significant negative implications for its indigenous communities, sustainability and environmental governance regime (Tiainen et.al., 2015).

Summary

The impact of China and its PSR on economic regime development parallels its white paper commitment to both multilateralism and bilateralism (SCIO, 2018). China's impact towards positive economic regime development is delimited to areas where multilateral cooperation is necessary for their medium-term economic interests, such as in shipping and to some extent oil and gas. Beijing's pursuit of its competitive Arctic economic interests is leading to increasing examples of asymmetric partnerships between China and Arctic powers, even regional great powers such as Russia. The perceived threat of their regional economic soft power entrenches US distrust of China's role and limits development of an effective multilateral governance regime capable of managing the region's key economic issue-areas.

Conclusion

The increasing role of China in Arctic affairs will have considerable impacts on all the *Environmental*, *Security* and *Economic* governance regimes. The complexity of the region's future, neither inherently an exceptional zone of peace nor region destined for military security dilemmas or conflict, becomes self-evident.

China's short-term impact will initially boost the environmental governance regime through additional resources and investment, yet its economic national self-interests and increasing US distrust will prevent further development in the medium-term. Traditional security governance is unlikely to deteriorate into direct conflict, though Beijing's minor role through its Sino-Russian JMEs, nuclear capabilities and dual military-civilian potential all will deepen pre-existing East-West divides away from security regime development. Most crucially, China's role in the medium-term will undermine the current multilateral environmental regime largely towards a more

competitive, bilateral 'business-orientated' Arctic (Ohnishi, 2014, p.97), with only selective development of aspects of an economic governance regime. Combined, it becomes clear that China's impact will not lead to the integration of the Arctic regimes towards a cohesive Arctic governance capable of solving the region's mounting shared problems. These regimes will largely remain separate and to some extent limit one another, leading to 'political inertia' (Heininen et.al., 2019, p.6) as the great polar powers of the USA and Russia are constantly caught between competition and interdependence with China; aligned to the former and the latter end of that spectrum respectively.

In many ways, Arctic governance is a regional embodiment of global governance trends (Stephen, 2017, pp.491-7). The rise of China's role will maintain the status quo in its short-term legitimacy and effectiveness, at the cost of gradual adaptation towards Beijing's interests. China's presence risks increasing multilateral deadlock or disinterest and in turn driving the fragmentation, informalisation and bilateralisation away from common objectives towards great power interests, at the expense of smaller Arctic states, non-state actors and wider needs of the increasingly fragile region. For national policymakers, this means recognising the need to maintain some economic independence and manage China's proportional regional influence, whilst simultaneously including them in multilateral governance-building to ensure they remain a responsible Arctic power. Ultimately, the US perceives China's increasing regional role as a geopolitical threat as opposed to the multi-dynamic and manageable opportunity it could be. This remains the biggest obstacle to the development of the effective Arctic, and global, governance required to solve the collective issues faced by states that none could possibly address alone.

Whilst this analysis has given an overview of China's impact on the development of these regimes, further research is required on the potential impact of other Arctic governance actors. Other new observer states, private business interests and other Arctic states could all significantly and uniquely impact the future development of these regimes; research into this would contribute to a better understanding of the future of Far Northern governance trends beyond the analysis of great power dynamics explored here.

Examples Provided by JK Essay

Bibliography

Abbott K.W, Genschel P, Snidal D and Zangl B. 2014b. Orchestration: Global Governance Through Intermediaries. In: Abbott K.W., Genschel, P., Snidal, D. and Zangl, B. (Eds.). *International Organizations as Orchestrators*. Cambridge: Cambridge University Press. Pp.3-36

Abbott K.W., Genschel, P., Snidal, D. and Zangl, B. 2014a. Orchestrating Global Governance: from Empirical Results to Theoretical Implications. In: Abbott K.W., Genschel, P., Snidal, D. and Zangl, B. (Eds.). *International Organizations as Orchestrators*. Cambridge: Cambridge University Press. Pp.349-379.

Abbott, K.W. 2012. The transnational regime complex for climate change. *Environment and Planning C: Government and Policy*. **30**(4). Pp.571–590.

Affolder, N. 2011. Why study large projects? Environmental Regulation's Neglected Frontier. *U.B.C. Law Review*. **44**(3). Pp.521–555.

Albert, M. and Vasilache, A. 2018. Governmentality of the Arctic as an international region. *Cooperation and Conflict*. **53**(1). Pp.3–22.

Alexeeva, O. and Lasserre, F. 2012. China and the Arctic. In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.) *Arctic Yearbook 2012*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 28 October 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2012/2012-scholarly-papers/9-china-and-the-arctic>. Pp.80-90.

Al-Rodhan, K.R. 2007. A Critique of the China Threat Theory: A Systematic Analysis. *Asian Perspective*. **31**(3). Pp.41-66.

Anderson, A. 2009. *After the Ice: Life, Death and Politics in the New Arctic*. London: Virgin Books.

Andersson, P., Zeuthen, J. and Kalvig, P. 2018. Chinese Mining in Greenland: Arctic Access or Access to Minerals?. In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.) *Arctic Yearbook 2018*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 07 March 2020]. Available from: <https://arcticyearbook.com/arctic-yearbook/2012/2012-scholarly-papers/9-china-and-the-arctic>. Pp.1-15.

Archer, C. 1988. General Features of Political Development and Possibilities for Cooperation in the Arctic. *Current Research on Peace and Violence*. **11**(4). Pp.137–45.

Arctic Coast Guard Forum. 2020. *About the ACGF*. [Online]. [Accessed 02 March 2020]. Available from: <https://www.arcticcoastguardforum.com/about-acgf>.

Arctic Council. 1996. *Ottawa Declaration*. [Online]. [Accessed 15 November 2019]. Available from: <http://www.arctic-council.org/index.php/en/document-archive/category/5-declarations>.

Arctic Council. 1997. *Environmental protection of the Arctic – a short history*. [Online]. [Accessed 15 November 2019]. Available from: https://oaarchive.arctic-council.org/bitstream/handle/11374/923/SOAER97_01.PDF.pdf?sequence=1&isAllowed=y

Arctic Council. 1998. *Arctic Council Rules of Procedure: As Adopted by the Arctic Council at the First Arctic Council Ministerial Meeting*. [Online]. [Accessed 17 November 2019]. Available from: https://oaarchive.arctic-council.org/bitstream/handle/11374/1783/EDOCS-3688-v2-ACMMUS02_BARROW_2000_6_SAO_Report_to_Ministers_Annex1_Rules_of_Procedure.pdf?sequence=1.

Arctic Council. 2011. *Agreement on cooperation on aeronautical and maritime search and rescue in the Arctic*. [Online]. [Accessed 20 December 2019]. Available from: <https://oaarchive.arctic-council.org/handle/11374/531>

Arctic Council. 2013a. *Arctic Council Observer Manual*. [Online]. [Accessed 05 February 2020]. Available from: <https://oaarchive.arctic-council.org/handle/11374/939>.

Arctic Council. 2013b. *Arctic Council Rules of Procedure*. [Online]. [Accessed 15 November 2019]. Available from: https://www.sdwg.org/wp-content/uploads/2015/11/2015-09-01_Rules_of_Procedure_website_version.pdf

Arctic Economic Council (AEC). 2014. *About Us*. [Online]. [Accessed on 27 October 2019]. Available from: <https://arcticeconomiccouncil.com/about-us/>

Arctic Ocean Conference (AOC). 2008. *Ilulissat Declaration*. [Online]. [Accessed 10 November 2019]. Available from: <https://cil.nus.edu.sg/wp-content/uploads/2017/07/2008-Ilulissat-Declaration.pdf>

Arctic Today. 2012. *About us*. [Online]. [Accessed 16 November 2019]. Available from: <https://www.arctictoday.com/about-us/>.

Arctic Yearbook. 2012. *About the Arctic Yearbook*. [Online]. [Accessed 18 November 2019]. Available from: <https://arcticyearbook.com/about>.

Åtland, K. 2008. Mikhail Gorbachev, the Murmansk Initiative, and the Desecuritization of Interstate: Relations in the Arctic. *Cooperation and Conflict*. **43**(3). Pp.289-311.

Åtland, K. 2014. Interstate relations in the Arctic: an emerging security dilemma?. *Comparative Strategy*. **33**(2). Pp.145–166.

Avery, J. S. 2013. *Towards an Arctic Nuclear Weapon Free Zone*. [Online]. Copenhagen: Christiansborg Palace. [Accessed 12 March 2020]. Available from: www.arnehansen.net/130403reportclosedMeeting.pdf.

Axworthy, T. S. 2012. *A Proposal for an Arctic Nuclear Weapon-Free Zone*. [Online]. [Accessed 12 March 2020]. Available from <https://www.interactioncouncil.org/publications/proposal-arctic-nuclear-weapon-free-zone>

Bai, J. 2015. The IMO Polar Code: The Emerging Rules of Arctic Shipping Governance. *The International Journal of Marine and Coastal Law*. **30**(1). Pp.674–699.

BarentsObserver. 2002. *History of BarentsObserver.com*. [Online]. [Accessed 17 November 2019]. Available from <https://barentsobserver.com/en/history-barentsobservercom>

Barrett, K. 2011. *Melting Boundaries: Rethinking Arctic Governance*. [Online]. Washington, D.C.: The School of International Studies, University of Washington. [Accessed 27 January 2020]. Available from: <https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/16482/Task%20Force%20A%202011.pdf?sequence=1>.

Bennett, M. 2014. North by Northeast: Toward an Asian-Arctic Region. *Eurasian Geography and Economics*. **55**(1). Pp.71-93.

Bennett, M. 2015. How China Sees the Arctic: Reading between Extra-regional and Intra-regional Narratives. *Geopolitics*. **20**(3). Pp.645-668.

Bennett, M. 2016. The Silk Road goes North: Russia's role within China's Belt and Road Initiative. *Area Development and Policy*. **1**(3). Pp.341-351.

Bennett, M. 2017. *China's Belt and Road Initiative Moves into the Arctic*. [Online]. [Accessed 27 February 2020]. Available from: <https://www.arctictoday.com/chinas-beltandroadinitiativemovesintotheartic/>.

Bennett, M. 2019. *The Arctic Shipping Route No One's Talking About*. [Online]. [Accessed 20 March 2020]. Available from: <https://www.maritime-executive.com/editorials/the-arctic-shipping-route-no-one-s-talking-about>

Bennett, N.J. and Satterfield, T. 2018. Environmental governance: A practical framework to guide design, evaluation, and analysis. *A Journal of the Society for Conservation Biology*. *Conservation Letters*. **11**. Pp.1-13.

Berkman P. and Vylegzhanin A. 2013. The Challenges of Oil Spill Response in the Arctic. In: Berkman P. and Vylegzhanin A. (Eds.). *Environmental Security in the Arctic Ocean*. Dordrecht: Springer. Pp.255-279.

Bertelsen, R.G. 2018. Quoted In: Niiler, E. *China's Scientists Are the New Kids on the Arctic Block*. [Online]. [Accessed 20 December 2019]. Available from: <https://www.wired.com/story/chinas-scientists-are-the-new-kids-on-the-arctic-block/>.

Bloom, E.T. 1999. Establishment of the Arctic Council. *The American Journal of International Law*. **93**(3). Pp.712-722.

Blunden, M. 2009. The New Problem of Arctic Stability. *Survival*. **51**(5). Pp.121–41.

Blunden, M. 2012. Geopolitics and the Northern Sea Route. *International Affairs*. **88**(1). Pp.115–29.

Bonn International Centre for Conversion (BICC). 2019. *Global Militarization Index*. [Online]. [Accessed 25 February 2020]. Available from: <https://gmi.bicc.de/>.

Borgerson, S. 2008. Arctic Meltdown: The Economic and Security Implications of Global Warming. *Foreign Affairs*. **87**(2). Pp.63–77.

Borgerson, S. 2009. *The Great Game Moves North*. [Online]. [Accessed 18 November 2019]. Available from: <http://www.foreignaffairs.com/articles/64905/scott-g-borgerson/the-great-game-moves-north>.

Borgerson, S. 2013. Coming Arctic Boom: As the Ice Melts, the Region Heats Up. *Foreign Affairs*. **92**(4). Pp.76-89.

Bortnikov, N.S., Lobanov, K.V., Volkov, A.V., Galyamov, A.L., Vikentev, I.V., Tarasov, N.N., Distler, V.V., Lalomov, A.V., Aristov, V.V., Murashov, K.Y., Chizhova, I.A. and Chefranov. R.M. 2015. Strategic Metal Deposits of the Arctic Zone. *Geology of Ore Deposits*. **57**(6). Pp.433–453.

Brady, A. 2017. *China as a Polar Great Power*. Cambridge: Cambridge University Press.

Brecher, M., Wilkenfeld, J., Beardsley, K., James, P. and Quinn, D. 2017. *International Crisis Behavior Data Codebook, Version 12*. [Online]. [Accessed 26 February 2020]. Available from: <http://sites.duke.edu/icbdata/data-collections/>

Breene, K. 2017. *The Arctic is now expected to be ice-free by 2040*. [Online]. [Accessed 20 October 2019]. Available from: <https://www.weforum.org/agenda/2017/05/the-arctic-could-be-ice-free-by-2040/>

Brosnan, I.G., Leschine, T.M. and Miles, E.L. 2011. Cooperation or Conflict in a Changing Arctic?. *Ocean Development and International Law*. **42**(2-3). Pp.173-210.

Browning, C.S. 2010. The Region-Building Approach Revisited: The Continued Othering of Russia in Discourses of Region-Building in the European North. *Geopolitics*. **8**(1). Pp.45–71.

Brutschin, E. and Schubert, S.R. 2016. Icy waters, hot tempers, and high stakes: Geopolitics and Geoeconomics of the Arctic. *Energy Research & Social Science*. **16**(1). Pp.147-159

Brzezinski, Z and Mearsheimer, J.J. 2005. Clash of the Titans. *Foreign Policy*. **146**. Pp.46-49.

Buckley, J. A. 2013. An Arctic Nuclear-Weapon-Free Zone: Circumpolar Non-Nuclear Weapons States Must Originate Negotiations. *Michigan State International Law Review*. **22**(1). Pp.167-193.

Byers, M. 2009. *Who owns the Arctic? Understanding sovereignty disputes in the North*. Vancouver: Douglas and McIntyre.

Byers, M. 2013. *International law and the Arctic*. Cambridge: Cambridge University Press.

Campbell, C. 2012. *China and the Arctic: Objectives and Obstacles: U.S.-China Economic and Security Review Commission Staff Research Report*. [Online]. [Accessed 19 March 2020]. Available from: http://library.arcticportal.org/1677/1/China-and-the-Arctic_Apr2012.pdf.

Carlson, J.D., Hubach, C., Long, J., Minter, K. and Young, S. 2013. Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims. *SAIS Review of International Affairs*. **33**(2). Pp.21-43

Carmody, P. 2020. Dependence not debt-trap diplomacy. *Area Development and Policy*. **5**(1). Pp.23-31.

Caron, D.C. 1993. Toward an Arctic environmental regime. *Ocean Development & International Law*. **24**(4). Pp.377-392.

Carpenter, T.G. 2013. *China as a Prickly, But Pragmatic, Revisionist Power*. [Online]. [Accessed 3 April 2020]. Available from: <https://www.cato.org/publications/commentary/china-prickly-pragmatic-revisionist-power>.

Chater, A. 2016. Explaining Non-Arctic States in the Arctic Council. *Strategic Analysis*. **40**(3). Pp.173-184.

Chatham House. 2018. *Exploring Public International Law Issues with Chinese Scholars – Part 4: International Law Programme Roundtable Meeting Summary*. [Online]. [Accessed 27 February 2020]. Available from: <https://www.chathamhouse.org/sites/default/files/publications/research/2018-06-02-Roundtable4-summary.pdf>

Chen J.Y.W. 2020. The Making of the Finnish Polar Silk Road: Status in Spring 2019. In: Chan, H., Chan, F. and O'Brien, D. (Eds.). *International Flows in the Belt and Road Initiative Context*. Singapore: Palgrave Macmillan. Pp.193-216

Chen, G. 2012. China's emerging Arctic Strategy. *The Polar Journal*. **2**(2). Pp.358-371.

Chircop, A. 2011. The Emergence of China as a Polar-Capable State. *Canadian Naval Review*. **7**(1). Pp.9-14.

Chircop, A. 2014. Regulatory Challenges for International Arctic Navigation and Shipping in an Evolving Governance Environment. *Ocean Yearbook Online*. **28**(1). Pp.269-90.

Coffey, L. 2020. *Russia's and China's Interest in Cold Svalbard Heats Up*. [Online]. [Accessed 18 March 2020]. Available from: <https://nationalinterest.org/feature/russia%E2%80%99s-and-china%E2%80%99s-interest-cold-svalbard-heats-123171>

Cohen, A., Szaszdi, L.F. and Dolbow, J. 2008. *The New Cold War: Reviving the US Presence in the Arctic*. Washington, D.C.: The Heritage Foundation.

Congressional Research Service (CRS). 2020. *U.S. Sanctions on Russia: An Overview*. [Online]. [Accessed 4 April 2020]. Available from: <https://fas.org/sgp/crs/row/IF10779.pdf>.

Conley, H.A., Toland, T., Kraut, J. and Østhagen, A. 2012. *A New Security Architecture for the Arctic: An American Perspective*. Washington, D.C.: Center for Strategic and International Studies (CSIS).

Crane, K. and Mao, Z. 2015. Costs of Reducing Air Pollution. In: Crane, K. and Mao, Z. (Eds.). *Costs of Selected Policies to Address Air Pollution in China*. Santa Monica: RAND Corporation. Pp.18-22.

Daly, J.C.K. 2014. China's Penetration of the Canadian Energy Market. *China Brief*. **14**(8). Pp.3-6.

Danish Defence Intelligence Service (DDIS). 2017. *Intelligence Risk Assessment 2017*. [Online]. [Accessed 25 March 2020]. Available from: https://feddis.dk/SiteCollectionDocuments/FE/EfterretningsmaessigeRisikovurderinger/Risikovurdering2017_EnglishVersion.pdf

Deng, X. 2019. *Arctic version of China threat theory another show of US double standard: experts*. [Online]. [Accessed 16 March 2020]. Available from: <http://www.globaltimes.cn/content/1148605.shtml>.

Depledge, D., Boulègue, M., Foxall, A., and Tulupov, D. 2019. Why we need to talk about military activity in the Arctic: Towards an Arctic Military Code of Conduct. In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.) *Arctic Yearbook 2019*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 09 March 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2019/2019-briefing-notes/328-why-we-need-to-talk-about-military-activity-in-the-arctic-towards-an-arctic-military-code-of-conduct>. Pp.1-4.

Devyatkin, P. 2019. *Russian and Chinese Scientists to Establish Arctic Research Center*. [Online]. [Accessed 26 November 2019]. Available from: <https://www.highnorthnews.com/en/russian-and-chinese-scientists-establish-arctic-research-center>.

Dibb, P. 2019. *How the geopolitical partnership between China and Russia threatens the West*. Barton, ACT: The Australian Strategic Policy Institute.

Digges, C. 2019. *Russian-China Relations Are Warming the Arctic*. [Online]. [Accessed 24 February 2020]. Available from: <https://www.maritime-executive.com/editorials/russian-china-relations-are-warming-the-arctic>.

Dodds, K. 2010. A Polar Mediterranean? Accessibility, resources and sovereignty in the Arctic Ocean. *Global Policy*. **1**(3). Pp.303– 311.

Dodds, K. 2012. Anticipating the Arctic and the Arctic Council: Pre-emption, Precaution and Preparedness. In: Axworthy, T.S., Koivurova, T. and Hasanat, W. (Eds.). *The Arctic Council: Its Place in the Future of Arctic Governance*. Toronto: The Gordon Foundation.

Domínguez, R. and Flores, V.R. 2018. *Global Governance*. [Online]. [Accessed 4 November 2019]. Available from <https://oxfordre.com/internationalstudies/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-508>.

Dunne, T. 2008. The English School. In: Reus-Smit, C. and Snidal, D. (Eds.). *The Oxford Handbook of International Relations*. Oxford: Oxford University Press. Pp.107-27.

Duxbury, C. 2020. *The 5 most important races for the Arctic*. [Online]. [Accessed 16 March 2020]. Available from: <https://www.politico.eu/article/5-races-for-the-arctic-trade-resources-supremacy-tourism-salvation/>

Ebinger, C., Banks, J.P. and Schackmann, A. 2014. Offshore Oil and Gas Governance in the Arctic: A Leadership Role for the U.S. *Brookings Energy Security Initiative Policy Brief 14-01*. [Online]. [Accessed 9 April 2020]. Available from: <https://www.brookings.edu/wp-content/uploads/2016/02/Offshore-Oil-and-Gas-Governance-web.pdf>

Ebinger, C.K. and Zambetakis, E. 2009. The Geopolitics of Arctic Melt. *International Affairs*. **85**. Pp.1215–32.

Eichbaum, W.M. 2017. The Future of Arctic Governance. In: Conley, H.A. (Ed.). *U.S.-Sino Relations in the Arctic: A Roadmap for Future Cooperation*. Washington, D.C.: Center for Strategic and International Studies (CSIS).

Eide, E.B. 2013. Quoted In: Brugård, M. 2013. *Norway says yes to China in Arctic Council*. [Online]. [Accessed 8 December 2019]. Available from: <https://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01>.

Eiterjord, T.A. 2018a. *China's Planned Nuclear Icebreaker*. [Online]. [Accessed 28 November 2019]. Available from: <https://thediplomat.com/2018/07/chinas-planned-nuclear-icebreaker/>

Eiterjord, T.A. 2018b. *The Growing Institutionalization of China's Polar Silk Road*. [Online]. [Accessed 4 March 2020]. Available from: <https://thediplomat.com/2018/10/the-growing-institutionalization-of-chinas-polar-silk-road/>.

Eiterjord, T.A. 2019. *China's Busy Year in the Arctic*. [Online]. [Accessed 15 January 2020]. Available from: <https://thediplomat.com/2019/01/chinas-busy-year-in-the-arctic/>.

Elgsaas, I.M. 2019. Arctic counterterrorism: can Arctic cooperation overcome its most divisive challenge yet?. *The Polar Journal*. **9**(1). Pp.27-44.

Exner-Pirot, H. 2019. Between Militarization and Disarmament: Challenges for Arctic Security in the Twenty-First Century. In: Heininen, L. and Exner-Pirot, H. (Eds.). *Climate Change and Arctic Security: Searching for Paradigm Shift*. London: Palgrave Pivot. Pp.91-106.

Exner-Pirot, H. and Murray, R. 2017. *Regional Order in the Arctic: Negotiated Exceptionalism*. [Online]. [Accessed 16 December 2019]. Available from: <https://www.thearcticinstitute.org/regional-order-arctic-negotiated-exceptionalism/>.

Exner-Pirot, H. 2012. Defence diplomacy in the Arctic: the search and rescue agreement as a confidence builder. *Canadian Foreign Policy Journal*. **18**(2). Pp.195-207.

Farooki, M. 2018. *China's Mineral Sector and the Belt & Road Initiative*. [Online]. [Accessed 18 March 2020]. Available from: http://stradeproject.eu/fileadmin/user_upload/pdf/STRADE_PB_02-2018_One_Belt_One_Road.pdf

Fearon, J. 1995. Rationalist Explanations for War. *International Organization*. **49**(3). Pp.379-414

Fedorinova, Y. 2019. *Russia Holds Rare Earths But Mines Little. That's Changing*. [Online]. [Accessed 18 March 2020]. Available from: <https://www.bloomberg.com/news/articles/2019-05-31/russia-owns-lots-of-rare-earth-but-mines-little-that-s-changing>

Fikkan, A., Osherenko, G. and Arikainen, A. 1993. Polar Bears: The Importance of Simplicity. In: Young, O.R. and Osherenko, G. (Eds.). *Polar Politics: Creating International Environmental Regimes*. Ithaca: Cornell.

Filimonova, N. 2017. *Gazprom and China's 'Breakthrough' in the Russian Arctic*. [Online]. [Accessed 19 November 2019]. Available from: <https://thediplomat.com/2017/08/gazprom-and-chinas-breakthrough-in-the-russian-arctic/>.

Frederiksen, M.Q. 2019. *World Economic Forum: 4 ways climate change is opening the Arctic up for business*. [Online]. [Accessed 06 March 2020]. Available from:

<https://www.weforum.org/agenda/2019/09/4-ways-climate-change-is-opening-the-arctic-up-to-business/>

Friedman, G. 2018. *The world's most insatiable consumer digs deep into Canadian miners*. [Online]. [Accessed 26 March 2020]. Available from: <https://business.financialpost.com/commodities/the-worlds-most-insatiable-consumer-digs-deep-into-canadian-mines>

Gertz, B. 2000. *The China Threat: How the People's Republic Targets America*. Washington, D.C.: Regnery.

Goble, P. 2019. *China Moves Toward Becoming Dominant Player on Northern Sea Route*. [Online]. [Accessed 17 March 2020]. Available from: <https://jamestown.org/program/china-moves-toward-becoming-dominant-player-on-northern-sea-route/>

Gong, K. 2015. The Cooperation and Competition between China, Japan, and South Korea in the Arctic. In: Lunde, L., Yang, J. and Stensdal, I. (Eds.). *Asian Countries and the Arctic Future*. Singapore: World Scientific Publishing Company. Pp.237-254.

Gosnell, R. 2018. *The Future of the Arctic Economy*. [Online]. [Accessed 20 March 2020]. Available from: <https://www.maritime-executive.com/editorials/the-future-of-the-arctic-economy>.

Grajewski, N.B. 2017. Russia's Great Power Assertion: Status-Seeking in the Arctic. *St Antony's International Review*. **13**(1). Pp.141-163.

Grieger, G. 2018. *China's Arctic policy: How China aligns rights and interests*. [Online]. [Accessed 12 February 2020]. Available from: https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/620231/EPRS_BRI%282018%29620231_EN.pdf.

Gudjonsson, H. and Nielsson, E.T. 2015. *China Can Play Key Role in Arctic Shipping*. [Online]. [Accessed 27 March 2020]. Available from: <https://www.maritime-executive.com/features/china-can-play-key-role-in-arctic>.

Gulas, S., Downton, M., Souza, K., Hayden, K. and Walker, Tony. 2016. Declining Arctic Ocean oil and gas developments: Opportunities to improve governance and environmental pollution control. *Marine Policy*. **75**. Pp.53-61.

Guo, L. and Wilson, S.L. 2020. *China, Russia, and Arctic Geopolitics*. [Online]. [Accessed 6 February 2020]. Available from: <https://thediplomat.com/2020/03/china-russia-and-arctic-geopolitics/>.

Guschin, A. 2015. *China, Iceland and the Arctic: Iceland is playing a growing role in China's Arctic strategy*. [Online]. [Accessed 7 March 2020]. Available from: <https://thediplomat.com/2015/05/china-iceland-and-the-arctic/>.

Hallsson, H. 2019. *The Icelandic Geothermal Model is Changing China*. [Online]. [Accessed 21 January 2020]. Available from: <https://icelandictimes.com/the-icelandic-geothermal-model-is-changing-china/>

Hamilton, D.S. 2014. America's Mega-regional Trade Diplomacy: Comparing TPP and TTIP. *International Spectator: Italian Journal of International Affairs*. **49**(1). Pp.81–97.

Hara, K. 2014a. Forces for Change in the Arctic: Reflections on a Region in Transition. In: Hara, K. and Coates, K. (Eds.). *East Asia-Arctic Relations: Boundary, Security and International Politics*. Canada, Montreal: McGill-Queen's University Press. Pp.9-20.

Hara, K. 2014b. From Cold War Thaws to the Arctic Thaw: The Changing Arctic and Its Security Implications to East Asia. *The Asia-Pacific Journal*. **11**(26). Pp.1-14.

Harris, N. 2016. *British Submarines Set to Resume Arctic Patrols*. [Online]. [Accessed 16 March 2020]. Available from: <https://newspunch.com/british-submarines-set-to-resume-arctic-patrols>.

Hasenclever, A., Mayer, P. and Rittberger, V. 1996. Interests, Power, Knowledge: The Study of International Regimes. *Mershon International Studies Review*. **40**(2). Pp.177-228.

Havnes, H. and Seland, J.M. 2019. *The Increasing Security Focus in China's Arctic Policy*. [Online]. [Accessed 26 February 2020]. Available from: <https://www.thearcticinstitute.org/increasing-security-focus-china-arctic-policy/>.

Hayes, D.J. 2017. Potential Opportunities for U.S.-China Cooperation in the Arctic. In: Conley, H.A. (Ed.). *U.S.-Sino Relations in the Arctic: A Roadmap for Future Cooperation*. [Online]. Washington, D.C.: Center for Strategic and International Studies (CSIS). [Accessed 12 November 2019]. Available from: <https://www.csis.org/analysis/us-sino-relations-arctic>.

Heikkilä, M. 2016. *It All Started in Rovaniemi*. [Online]. [Accessed 8 February 2020]. Available from: <https://www.uarctic.org/shared-voices/shared-voices-magazine-2016-special-issue/it-all-started-in-rovaniemi/>

Heininen, L. 2019. Before Climate Change, 'Nuclear Safety' Was There – A Retrospective Study and Lessons-Learned of Changing Security Premises in the Arctic. In: Heininen, L. and Exner-Pirot, H. (Eds.). *Climate Change and Arctic Security: Searching for Paradigm Shift*. London: Palgrave Pivot. Pp. 107-129.

Heininen, L. and Exner-Pirot, H. 2019. Introduction. Heininen, L. and Exner-Pirot, H. (Eds.). *Climate Change and Arctic Security: Searching for Paradigm Shift*. London: Palgrave Pivot. Pp.1-8.

Heininen, L., Exner-Pirot, H. and Barnes, J. 2019. Introduction: Redefining Arctic security. In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.). *Arctic Yearbook*

2019. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 12 March 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2019/2019-briefing-notes/328-why-we-need-to-talk-about-military-activity-in-the-arctic-towards-an-arctic-military-code-of-conduct>. Pp.1-7.

Heininen, L., Sergunin, A. and Yarovoy, G. 2014. *Russian Strategies in the Arctic: Avoiding a New Cold War*. [Online]. [Accessed 24 January 2020]. Available from: https://www.uarctic.org/media/857300/arctic_eng.pdf

Henriksen, A. and Rahbek-Clemmensen, J. 2017. The Greenland Card: Prospects for and Barriers to Danish Arctic Diplomacy in Washington. In: Mouritzen, H. and Fischer, F.K. (Eds.). *Danish Foreign Policy Yearbook 2017*. Copenhagen: Danish Institute for International Studies. Pp.75–98.

Herberg, M. 2017. US Energy Security Strategy and China's Resource Diplomacy'. In: Zweig, D. and Hao, Y. (Eds.). *Sino-U.S. Energy Triangles: Resource Diplomacy Under Hegemony*. Abingdon: Routledge. Pp.55-73.

Herring, G.C. 1973. *Aid to Russia, 1941-1946: Strategy, Diplomacy, and the Origins of the Cold War*. New York: Columbia University Press.

High North News. 2014. *About Us*. [Online]. [Accessed 27 October 2019]. Available from: <https://www.highnorthnews.com/en>.

Holroyd, C. 2014. The Business of Arctic Development: East Asian Economic Interests in the Far North. In: Hara, K. and Coates, K. (Eds.). *East Asia-Arctic Relations: Boundary, Security and International Politics*. Canada, Montreal: McGill-Queen's University Press. Pp.147-164.

Hønneland, G. 1998. Identity Formation in the Barents Euro-Arctic Region. *Cooperation and Conflict*. **33**(3). Pp.277–297.

Hønneland, G. 2012. *Making Fishery Agreements Work: Post-Agreement Bargaining in the Barents Sea*. Cheltenham, UK: Edward Elgar Publishing.

Hønneland, G. and Stokke, O. 2010. *International Cooperation and Arctic Governance: Regime Effectiveness and Northern Region Building*. Abingdon: Routledge.

Hough, P. 2002. *International Politics of the Arctic: Coming in from the Cold*. London: Routledge.

Howard, R. 2009. *The Arctic Goldrush: The New Race for Tomorrow's Natural Resources*. London and New York: Continuum.

https://cms.polsci.ku.dk/publikationer/learning-from-the-ilulissat-initiative/download/CMS_Rapport_2018__1_-_Learning_from_the_ilulissat_initiative.pdf

Huebert, R. 2010. *The Newly Emerging Arctic security environment*. Calgary: Canadian Defence and Foreign Affairs Institute.

Huebert, R. 2012. *Canada and China in the Arctic: A Work in Progress*. [Online]. [Accessed 25 November 2019]. Available from: <http://www.polarcom.gc.ca/eng/content/meridian-newsletter-fallwinter2011-springsummer-2012-0>.

Huebert, R. 2018. *Protecting Canadian Arctic Sovereignty from Donald Trump*. [Online]. [Accessed 25 November 2019]. Available from: https://www.cgai.ca/protecting_canadian_arctic_sovereignty_from_donald_trump

Huebert, R. 2019a. A new Cold War in the Arctic?! The old one never ended! In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.) *Arctic Yearbook 2019*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 25 February 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2019/2019-commentaries/325-a-new-cold-war-in-the-arctic-the-old-one-never-ended>

Huebert, R. 2019b. The New Arctic Strategic Triangle Environment (NASTE). In: Lackenbauer, W.P. and Lalonde, S. (Eds.) *Breaking the Ice Curtain? Russia, Canada and Arctic Security in a Changing Circumpolar World*. [Online]. Calgary, AB: Canadian Global Affairs Institute. [Accessed 16 March 2020]. Available from: https://pure.spbu.ru/ws/portalfiles/portal/42540381/Breaking_the_Ice_Curtain.pdf#page=94 pp.75-94.

Huebert, R. and Exner-Pirot, H. 2012. *Climate Change and International Security: The Arctic as a Bellwether*. Virginia: Center for Climate and Energy Solutions.

Humpert, M. 2019. *China Looking to Expand Satellite Coverage in Arctic, Experts Warn Of Military Purpose*. [Online]. [Accessed 27 November 2019]. Available from: <https://www.highnorthnews.com/en/china-looking-expand-satellite-coverage-arctic-experts-warn-military-purpose>.

Humpert, M. and Raspotnik, A. 2012. *From 'Great Wall' to 'Great White North': Explaining China's Politics in the Arctic*. [Online]. [Accessed 16 December 2019]. Available from: <http://europeangeostrategy.ideasononeurope.eu/files/2013/04/Long-Post-2.pdf>.

Ibold, S. 2018. *China's Polar Silk Road*. [Online]. [Accessed 5 January 2020]. Available from: <https://www.beltroad-initiative.com/arctic-policy/?fbclid=IwAR278wl2enmGJP3-e0SokMXxluXavwHGNycp0CTmQEZ9Hzkap7nvDI80Muc>.

Ingimundarson, V. 2014. Managing a Contested Region: The Arctic Council and the politics of Arctic governance. *The Polar Journal*. 4(1). Pp.183-198.

Institute for Economics and Peace (IfeP). 2019. *Global Peace Index*. [Online]. [Accessed 20 March 2020]. Available from: <http://visionofhumanity.org/app/uploads/2019/07/GPI-2019web.pdf>.

International Maritime Organisation (IMO). 2020. Shipping in polar waters: International Code for Ships Operating in Polar Waters (Polar Code). [Online]. [Accessed 26 November 2019]. Available from: <http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx>

International Security Advisory Board (ISAB). 2016. *Report on Arctic Policy*. [Online]. [Accessed 15 February 2020]. Available from: <https://2009-2017.state.gov/t/avc/isab/262342.html>.

Inuit Circumpolar Conference (ICC). 1983. *ICC Resolution on a Nuclear Weapon Free Zone*. [Online]. [Accessed 28 March 2020]. Available from: <https://www.arcticnwfz.ca/documents/I%20N%20U%20I%20T%20CIRCUMPOLAR%20RES%20ON%20nwfz%201983.pdf>

Jaffe, A.M., Medlock, K.B. and O'Sullivan, M.L. 2015. *China's Energy Hedging Strategy: Less Than Meets the Eye for Russian Gas Pipelines*. [Online]. [Accessed 20 October 2019]. Available from: <https://www.belfercenter.org/publication/chinas-energy-hedging-strategy-less-meets-eye-russian-gas-pipelines>.

Jakobson, L. 2010. *China Prepares for an Ice-Free Arctic*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 19 November 2019]. Available from: <http://books.sipri.org/files/insight/SIPRIInsight1002.pdf>

Jakobson, L. and Lee, S. 2013. *The North East Asian States' Interests in the Arctic and Possible Cooperation with the Kingdom of Denmark*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 10 March 2020]. Available from: <https://www.sipri.org/publications/2013/north-east-asian-states-interests-arctic-and-possible-cooperation-kingdom-denmark>.

Jakobson, L. and Peng, J. 2012. *Motives behind China's Arctic activities*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 19 November 2019]. Available from: <https://arcticportal.org/images/PDFs/SIPRIPP34.pdf>.

Jares, V. 2009. The Continental Shelf Beyond 200 Nautical Miles: The Work of the Commission on the Limits of the Continental Shelf and the Arctic. *Vanderbilt Journal of Transnational Law*. **42**. Pp.1265-305.

Jiang, Y. 2014. China's Role in Arctic Affairs in the Context of Global Governance. *Strategic Analysis*. **38**(6). Pp.913-916.

Jiang, Y. 2018. *China in Greenland: Companies, Governments, and Hidden Intentions?*. [Online]. Copenhagen: Danish Institute for International Studies (DIIS). [Accessed 17 October 2019]. Available from: <https://www.diis.dk/en/research/china-in-greenland>

Johnson, K. 2015. Energy: Same Game, New Board. *Foreign Policy*. **213**. Pp.106-107.

Johnson, K. 2018. *Trump's Trade War with China Could Hit Energy Exports*. [Online]. [Accessed 28 March 2020]. Available from: <https://foreignpolicy.com/2018/09/24/trumps-trade-war-with-china-could-hit-energy-exports/>

Johnston, I.A. 2003. Is China a Status Quo Power?. *International Security*. **27**(4). Pp.5-56.

Juris, F. 2020. *Handing over infrastructure for China's strategic objectives: 'Arctic Connect' and the Digital Silk Road in the Arctic*. [Online]. [Accessed 28 March 2020]. Available from: <https://sinopsis.cz/wp-content/uploads/2020/03/jyrisarctic.pdf>

Kacowicz, A.M. 2012. Global Governance, International Order, and World Order. In: Levi-Faur, D. (Ed.). *The Oxford Handbook of Governance*. Oxford: Oxford University Press. Pp.45-80.

Kalliojärvi, S. 2019. Age of Changes: Threat of Climate Change and its Meaning for Security. In: Heininen, L. and Exner-Pirot, H. (Eds.). *Climate Change and Arctic Security: Searching for Paradigm Shift*. London: Palgrave Pivot. Pp.9-32.

Kao, S.M., Pearre, N.S., Firestone, J. 2012. Adoption of the arctic search and rescue agreement: A shift of the arctic regime toward a hard law basis?. *Marine Policy*. **36**(3). Pp.832-838

Keil, K. 2014. The Arctic: A new region of conflict? The case of oil and gas. *Cooperation and Conflict*. **49**(2). Pp.162-190.

Keskitalo, E.C. 2004. *Negotiating the Arctic: The Construction of an International Region*. New York and London: Routledge.

Kim, Y. and Blank, S. 2011. The Arctic: A New Issue on Asia's Security Agenda. *The Korean Journal of Defense Analysis*. **23**(3). Pp.303-20.

Kimmelman, M. 2017. *In the Pearl River Delta, breakneck development is colliding with the effects of climate change*. [Online]. [Accessed 27 November 2019]. Available from: <https://www.nytimes.com/interactive/2017/04/07/world/asia/climate-change-china.html>

Klimenko, E. 2014. *Russia's Evolving Arctic Strategy: Drivers, Challenges and New Opportunities*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 03 December 2019]. Available from: <https://www.sipri.org/publications/2014/sipri-policy-papers/russias-evolving-arctic-strategy-drivers-challenges-and-new-opportunities>.

Klimenko, E. 2019. *The Geopolitics of a Changing Arctic*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 19 November 2019]. Available from https://www.sipri.org/sites/default/files/2019-12/sipribp1912_geopolitics_in_the_arctic.pdf

Knecht, S. 2013. Arctic Regionalism in Theory and Practice: From Cooperation to Integration?. In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.). *Arctic Yearbook 2013*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 28 October 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2013/2013-scholarly-papers/39-arctic-regionalism-in-theory-and-practice-from-cooperation-to-integration>.

Koivurova, T. 2011. Scramble for resources or orderly development – what is happening in the Arctic?. In: Salmela, L. (Ed.). *Nordic Cooperation and the Far North*. Helsinki: Department of Strategic and Defence Studies. Pp.1-14.

Koivurova, T. 2018. *China & the Arctic: Why the focus on international law matters*. [Online]. [Accessed 4 January 2020]. Available from: <https://www.rcinet.ca/eye-on-the-arctic/2018/02/13/blog-china-the-arctic-why-the-focus-on-international-law-matters/>

Koivurova, T. 2019. *Is this the end of the Arctic Council and Arctic Governance as we know it?* [Online]. [Accessed 7 February 2020]. Available from: <http://polarconnection.org/arctic-council-governance-timo-koivurova/>.

Koivurova, T. 2020. *How US policy threatens existing Arctic governance*. [Online]. [Accessed 3 March 2020]. Available from: <https://www.arctictoday.com/how-us-policy-threatens-existing-arctic-governance/>

Koivurova, T. and Molenaar, E.J. 2010. *International Governance and Regulation of the Marine Arctic: Three Reports Prepared for the WWF International Arctic Programme*. Oslo: WWF.

Koivurova, T., Kauppila, K., Kopra, S., Lanteigne, M., Shi, M., Smieszek, M.G. and Stepien, A. 2019. *China in the Arctic and the Opportunities and Challenges for Chinese- Finnish Arctic Co-operation*. [Online]. Helsinki: Prime Minister's Office, Finland. [Accessed 15 February 2020]. Available from: http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161371/8-2019-China_Arctic_andFinland.pdf

Koivurova, T., Qin, T., Duyck, S. and Nykänen, T. 2017. *Arctic Law and Governance: The Role of China and Finland*. London: Bloomsbury Publishing.

Kong, S.L. 2018. China's Arctic Policy & the Polar Silk Road Vision. In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.). *Arctic Yearbook 2018*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 12 March 2019]. Available from: https://arcticyearbook.com/images/yearbook/2018/Scholarly_Papers/24_AY2018_Kong.pdf

Kopra, S. 2019. *China in the Polar 'Zone of Peace'*. [Online]. [Accessed 2 November 2020]. Available from: <https://theasiadialogue.com/2019/11/22/the-long-read-china-in-the-polar-zone-of-peace/>

Kristensen, H. M. and Norris, R.S. 2018. *Chinese Nuclear Forces, 2018*. [Online]. [Accessed 21 March 2020]. Available from: <https://thebulletin.org/2018/06/chinese-nuclear-forces-2018>

Kristoffersen B. and Langhelle, O. 2017. Sustainable Development as a Global-Arctic Matter: Imaginaries and Controversies. In: Keil, K. and Knecht, S. (Eds.) *Governing Arctic Change*. London: Palgrave Macmillan.

Kristoffersen, B. 2014. Securing Geography: Framings, Logics and Strategies in the Norwegian High North. In: Powell, R.C. and Dodds, K. (Eds.). *Polar Geopolitics? Knowledges, Resources and Legal Regimes*. Cheltenham: Edward Elgar. Pp.131–148.

Kristoffersen, B. 2015. Opportunistic Adaptation: New Discourses on Oil, Equity and Environmental security. In: O'Brien, K. and Selboe, E. (Eds.). *The Adaptive Challenge of Climate Change*. Cambridge: Cambridge University Press. Pp.140-151.

Krivovichev, S.V. 2019. Editorial for Special Issue “Arctic Mineral Resources: Science and Technology”. *Minerals*. **9**(3). Pp.192-6.

Kuersten, A. 2015. *The Practicality of the Arctic Five Forum*. [Online]. [Accessed 16 February 2020]. Available from: <https://www.arcticsummercollege.org/practicality-arctic-five-forum>.

Kuersten, A. 2016. *The Arctic Five Versus the Arctic Council*. [Online]. [Accessed 16 February 2020]. Available from: <https://arcticyearbook.com/arctic-yearbook/2016/2016-briefing-notes/205-the-arctic-five-versus-the-arctic-council>.

Lackenbauer, P. W. 2011. Polar Race or Polar Saga? In: Kraska, J. (Ed.). *Arctic Security in an Age of Climate Change*. Cambridge: Cambridge University Press. Pp.218–243.

Lackenbauer, P., Lajeunesse, A., Manicom, J. and Lasserre, F. 2018. *China's Arctic ambitions and what they mean for Canada*. Calgary: University of Calgary Press.

Lajeunesse, A. and Huebert, R. 2019. Preparing for the next Arctic sovereignty crisis: The Northwest Passage in the age of Donald Trump. *International Journal*. **74**(2). Pp.225–239.

Lanteigne, M. 2014. China's Emerging Arctic Strategies: Economics and Institutions. [Online]. Reykjavík: *Iceland Institute of International Affairs*. [Accessed 3 November 2019]. Available from: http://ams.hi.is/wp-content/uploads/2014/11/ChinasEmergingArcticStrategiesPDF_FIX2.pdf

Lanteigne, M. 2016. *Chinese Foreign Policy*. London: Routledge.

Lanteigne, M. 2017. Have you entered the storehouses of the snow? China as a norm entrepreneur in the Arctic. *Polar Record*. **53**(2). Pp.117-130.

Laruelle, M. 2014. *Russia's Arctic strategies and the future of the far north*. Armonk: M.E. Sharpe.

Laskai, L. 2018. Civil-Military Fusion and the PLA's Pursuit of Dominance in Emerging Technologies. *China Brief*. **18**(6). Pp.12-16.

Lasserre, F. 2010. *China and the Arctic: Threat or Cooperation Potential for Canada?* [Online]. Toronto: Canadian International Council, China Papers No.11. [Accessed 4 November 2019]. Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.475.2735&rep=rep1&type=pdf>

Laurelle, M. 2011. International law and geographical representations: The Russian stance on territorial conflicts in the Arctic. In: Salmela, L. (Ed.). *Nordic Cooperation and the Far North*. Helsinki: Department of Strategic and Defence Studies. Pp.1-14.

Le Mière, C. and Mazo, J. 2013. *Arctic Opening: Insecurity and Opportunity*. Abingdon: Routledge.

Levy, J. and Thompson, W. 2010. *Causes of war*. Chichester: Wiley-Blackwell.

Li, J., Zhan, L. and Ma, P. 2014. The Strategic Vision of China's Developing the Northern Sea Route. *Journal of Dongbei University of Finance and Economics*. **2**(1). Pp.43-51. [Chinese].

Li, X. and Bertelsen, R.G. 2013. The Drivers of Chinese Arctic Interests: Political Stability and Energy and Transportation Security. In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.) *Arctic Yearbook 2013*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 20 November 2019]. Available from: https://arcticyearbook.com/images/yearbook/2013/Scholarly_Papers/2.LIBERTLESON.pdf. Pp.1-16.

Lindholt, L. 2006. Arctic natural resources in a global perspective. *The Economy of the North*. **27**. https://www.ssb.no/a/english/publikasjoner/pdf/sa84_en/kap3.pdf

Liu, N. 2017. China's emerging Arctic policy: What are the implications for Arctic governance?. *Global Law Review*. **8**(1). Pp.55-68,

Liu, N. 2018. *How Has China Shaped Arctic Fisheries Governance?* [Online]. [Accessed 23 November 2019]. Available from: <https://thediplomat.com/2018/06/how-has-china-shaped-arctic-fisheries-governance/>.

Lucht, H. 2018. *Chinese investments in Greenland raise US concerns*. [Online]. Copenhagen: Danish Institute for International Studies (DIIS). [Accessed 20 October 2019]. Available from: <https://www.diis.dk/en/research/chinese-investments-in-greenland-raise-us-concerns>

Ludwig, K. and Kok. M. 2018. *Exploring new dynamics in global environmental governance – literature review*. [Online]. The Hague: PBL Netherlands

Environmental Assessment Agency. [Accessed October 29 2019]. Available from: https://www.pbl.nl/sites/default/files/downloads/3253_Exploring_new_dynamics_in_global_environmental_governance_.pdf

Luszczuk, M. 2014. Regional Significance of the Arctic Search and Rescue Agreement. *Yearbook of International Security*. **18**(1). Pp.38-50.

Ma, C. 2019. *The United States and China in the Arctic: A Roadmap for Sino-US Cooperation on Energy, Climate Change, and Global Governance*. [Online]. New Haven, Connecticut: Yale University Press. [Accessed 15 January 2020]. Available from: https://politicalscience.yale.edu/sites/default/files/ma_clara.pdf.

Macdonald, A.P. 2019. Precarious Existence or Staying the Course? The Future of Arctic Stability in an Era of Renewed Major Power Competition and its Implications for Canada. In: Heininen, L., Exner-Pirot, H. and Barnes, J. (Eds.) *Arctic Yearbook 2019*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 25 February 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2019/2019-scholarly-papers/303-precarious-existence-or-staying-the-course-the-foundations-and-future-of-arctic-stability>. Pp.1-29.

Magnússon, B.M. 2015. China as the Guardian of the International Seabed Area in the Central Arctic Ocean'. *The Yearbook of Polar Law*. **7**(1). Pp.83–101.

Maiese, M. (2003). *Confidence-Building Measures*. [Online]. [Accessed 17 March 2020]. Available from: https://www.beyondintractability.org/essay/confidence_building_measures.

Mark, A.A. and King, M.D. 2013. The Effects of Additional Black Carbon on the Albedo of Arctic Sea Ice: Variation with Sea Ice Type and Snow Cover. *The Cryosphere*. **7**(4). Pp.1193–1204.

Martin, L.L. 1993. The Rational State Choice of Multilateralism. In: Ruggie, J.G. (Ed.). *Multilateralism Matters: The Theory and Praxis of an Institutional Form*. New York: Columbia University Press. Pp. 91-121.

Matzen, E. 2017. *Denmark spurned Chinese offer for Greenland base over security*. [Online]. [Accessed 28 November 2019]. Available from: <https://www.reuters.com/article/us-denmark-china-greenland-base/denmark-spurned-chinese-offer-for-greenland-base-over-security-sources-idUSKBN1782EE>

Mayer, E. 2018. *Establishing the Role of Permanent Participants: How Arctic Indigenous groups gained recognition on the Arctic Council*. [Online]. [Accessed 09 November 2019]. Available from: <https://jsis.washington.edu/news/establishing-the-role-of-permanent-participants-on-the-arctic-council-how-arctic-indigenous-groups-gained-recognition-on-the-arctic-council/>.

McGwin, K. 2018. *For Asian countries, Arctic co-operation reflects regional realities*. [Online]. [Accessed 15 February 2020]. Available from:

<https://www.arctictoday.com/asian-countries-arctic-co-operation-reflects-regional-realities/>.

McGwin, K. 2020. *An Arctic treaty has been rejected by the region's leaders. Again*. [Online]. [Accessed 3 November 2019]. Available from: <https://www.arctictoday.com/an-arctic-treaty-has-been-rejected-by-the-regions-leaders-again/>.

Mearsheimer, J.J. 2001. *The Tragedy of Great Power Politics*. New York: W.W. Norton.

Mearsheimer, J.J. 2010. The Gathering Storm: China's Challenge to US Power in Asia. *The Chinese Journal of International Politics*. **3**(4). Pp.381–396.

Melia, N., Haines, K., and Hawkins, E. 2016. Sea ice decline and 21st century trans-Arctic shipping routes. *Geophysical Research Letters*. **43**(18). Pp.9720-9728.

Menon and DNV GL. 2018. *The Leading Maritime Nations of the World 2018*. [Online]. [Accessed 10 March 2020]. Available from: <https://www.dnvgl.com/maritime/publications/leadingmaritimenationsoftheworld-2018study.html>.

MiningExaminer. (2014). *After the Ice: Mineral Riches of the Arctic*. [Online]. [Accessed 5 April 2020]. Available from: <https://www.911metallurgist.com/blog/mineral-riches-of-the-arctic>

Ministry of National Defense of the People's Republic of China (MoND PRC). 2017. *National Security Law of the People's Republic of China (2015)*. [Online]. [Accessed 20 March 2020]. Available from: http://eng.mod.gov.cn/publications/2017-03/03/content_4774229.htm

Ministry of Natural Resources of Russia (MNRR). 2019. *The comprehensive plan "Implementation of the Arctic's Mineral Resources and Logistics Potential"*. [Online]. [Accessed 20 March 2020]. Available from: http://mnr.gov.ru/press/news/kompleksnyy_plan_realizatsiya_mineralno_syrevogo_i_logisticheskogo_potentsiala_arktiki_razrabotannyy/ [Russian].

Mitzen, J. and Schweller, R. 2011. Knowing the Unknown Unknowns: Misplaced Certainty and the Onset of War. *Security Studies*. **20**(1). Pp.2–35.

Moe, A. and Stokke, O.S. 2019a. Asian Countries and Arctic Shipping: Policies, Interests and Footprints on Governance. *Arctic Review on Law and Politics*. **10**(1). Pp.24-52.

Moe, A. and Stokke, O.S. 2019b. China and Arctic Shipping: Policies, Interests and Engagement. *China in World and Regional Politics*. **24**(1). Pp.257-278.

Morishita, J. 2019. The Arctic Five-plus-Five process on central Arctic Ocean fisheries negotiations. In: Shibata, A., Zou, L., Sellheim, L. and Scopelliti, M. (Eds.).

Emerging Legal Orders in the Arctic: The Role of Non-Arctic Actors. London: Routledge. Pp.150-165.

Morse, J.C. and Keohane, R.O. Contested Multilateralism. *Review of International Organizations*. 9(4). Pp.385–412.

Moynihan, H. 2018. *China Expands Its Global Governance Ambitions in the Arctic*. [Online]. [Accessed 2 November 2019]. Available from: <https://www.chathamhouse.org/expert/comment/china-expands-its-global-governance-ambitions-arctic>

Myers, S.A. 2016. *With Strategic Spillover Rising, Now Is the Time for an Arctic Security Forum*. [Online]. [Accessed 16 March 2020]. Available from: <https://www.thearcticinstitute.org/strategic-spillover-arctic-security-forum/>

Nakano, J. and Li, W. 2018. *China Launches the Polar Silk Road*. *Center for Strategic and International Studies*. [Online]. Washington, D.C.: Center for Strategic and International Studies (CSIS). [Accessed 23 November 2019]. Available from: <https://www.csis.org/analysis/china-launches-polar-silk-road>

Neumann, I.B. 1994. A Region-Building Approach to Northern Europe. *International Studies*. 20(1). Pp.53–74.

Nielsson, E.T. and Magnusson, B.M. 2015. *The Arctic Five Strike Again*. [Online]. Michigan: The Arctic Journal. [Accessed 16 December 2019]. Available from: <http://arcticjournal.com/opinion/1732/arctic-five-strike-again2015>.

Nilsen, T. 2019a. *Major step towards a Europe-Asia Arctic cable link*. [Online]. [Accessed 3 April 2020]. Available from: <https://thebarentsobserver.com/en/industry-and-energy/2019/06/mou-signed-set-arctic-telecom-cable-company>.

Nilsen, T. 2019b. *China seeks a more active role in the Arctic*. [Online]. [Accessed 4 January 2020]. Available from: <https://thebarentsobserver.com/en/arctic/2019/05/china-seeks-more-active-role-arctic>

Nordregio. 2019. *Resources in the Arctic*. [Online]. [Accessed 27 March 2020]. Available from: <https://nordregio.org/maps/resources-in-the-arctic-2019/>.

Nye, J. 2006. The Challenge of China. In: Van Evera, S. (Ed.). *How to Make America Safe: New Policies for National Security*. Cambridge, Mass.: Tobin Project.

O'Rourke, R. 2017. *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*. [Online]. Washington, D.C.: Congressional Research Service Report 7-5700. [Accessed 28 March 2020]. Available from: <http://www.andrewerickson.com/2017/05/china-naval-modernization-implications-for-u-s-navy-capabilities-background-and-issues-for-congress-newest-edition-of-ronald-orourkes-congressional/>

Ó'Tuathail, G. 1996. *Critical Geopolitics*. London: Routledge.

Ohnishi, F. 2014. The Struggle for Arctic Regional Order: Developments and Prospects of Arctic Politics. *Eurasia Border Review*. **5**(2). Pp.81-97.

Olesen, M.R. 2014. *Cooperation or conflict in the Arctic: A Literature Review*. [Online]. Copenhagen: Danish Institute for International Studies (DIIS). [Accessed 20 October 2019]. Available from: https://pure.diis.dk/ws/files/70921/wp2014_08_Runge_Olesen_for_web.pdf.

Orttung, R. and Weingartner, K. 2019. *U.S. Arctic Policymaking Under Trump and Obama: Implications for Russia and China*. [Online]. [Accessed 29 November 2019]. Available from: <http://www.ponarseurasia.org/memo/us-arctic-policymaking-under-trump-and-obama-implications>

Østerud, Ø. and Hønneland, G. 2014. Geopolitics and International Governance in the Arctic. *Arctic Review on Law and Politics*. **5**(2). Pp.156–176.

Østhagen, A. 2017. Geopolitics and security in the Arctic: what role for the EU?. *European View*. **16**(1). Pp.239–249.

Oye, K. 1986. Explaining Cooperation under Anarchy: Hypotheses and Strategies. In: Oye, K. *Cooperation under Anarchy*. Princeton: Princeton University Press. Pp. 1-24.

Pedersen, T. 2012. Debates over the Role of the Arctic Council. *Ocean Development and International Law*. **43**(1). Pp.146–56.

Pelaudeix, C. and Basse, E.M. 2017. *Governance of Arctic Offshore Oil and Gas*. Oxford: Taylor and Francis Group.

Pence, M. 2018. Quoted In: Haas, R. *Who was Mike Pence really addressing in his speech on China?* [Online]. [Accessed 04 November 2019]. Available from: <https://www.brookings.edu/blog/order-from-chaos/2018/10/04/who-was-mike-pence-really-addressing-in-his-speech-on-china/>.

Peng, J. and Wegge, N. 2015. China's bilateral diplomacy in the Arctic. *Polar Geography*. **38**(3). Pp.233-249.

Peng, J. and Wegge, N. 2014. China and the law of the sea: implications for Arctic governance. *The Polar Journal*. **4**(2). Pp.287-305.

Perry, C.M. and Andersen, B. 2012. *New Strategic Dynamics in the Arctic Region*. Cambridge, MA: The Institute for Foreign Policy Analysis.

Petersen, N. 2009. The Arctic as a new arena for Danish foreign policy: the Ilulissat initiative and its implications. In: Hvidt, N. and Mouritzen, H. (Eds.). *Danish Foreign Policy Yearbook 2009*. [Online]. [Accessed 13 December 2019]. Available from:

https://www.diis.dk/files/media/documents/publications/yearbook_2009_web.pdf. Pp.35-78.

Pettersson, T., Högladh, S. and Öberg, M. 2019. Organized violence, 1989-2018 and peace agreements. *Journal of Peace Research*. **56**(4). Pp.589–603.

Pompeo, M.R. 2019a. *Remarks at the Arctic Council Ministerial Meeting*. [Online]. [Accessed 4 November 2019]. Available from: <https://www.state.gov/remarks-at-the-arctic-council-ministerial-meeting-2/>

Pompeo, M.R. 2019b. *Looking North: Sharpening America's Arctic Focus*. [Online]. [Accessed 14 March 2020]. Available from: <https://www.state.gov/looking-north-sharpening-americas-arctic-focus/>.

Posner, E. 2007. *The New Race for the Arctic*. [Online]. [Accessed 23 October 2019]. Available from: <https://www.wsj.com/articles/SB118610915886687045>.

Prawitz, J. 2011. *The Arctic: Top of the World to Be Nuclear-Weapon-Free*. [Online]. Geneva: United Nations Institute for Disarmament Research (UNIDR). [Accessed 18 March 2020]. Available from: <https://www.unidir.org/files/publications/pdfs/nuclear-weapon-free-zones-en-314.pdf>

Prine, C. 2018. *Is the Coast Guard's icebreaker project doomed?*. [Online]. [Accessed 28 October 2019]. Available from: <https://www.navytimes.com/news/your-navy/2018/08/04/is-the-coast-guards-icebreaker-project-doomed/>

Rahbek-Clemmensen, J. 2017. The Ukraine crisis moves north. Is Arctic conflict spill-over driven by material interests?. *Polar Record*. **53**(1). Pp.1-15.

Rahbek-Clemmensen, J. and Thomasen, G. 2018. *Learning from the Ilulissat Initiative State Power, Institutional Legitimacy, and Governance in the Arctic Ocean 2007–18*. [Online]. Copenhagen: Centre for Military Studies, University of Copenhagen. [Accessed 23 November 2019]. Available from:

Roginko, A.Y. and LaMourie, M.J. 1992. Emerging Marine Environmental Protection Strategies for the Arctic. *Marine Policy*. **16**(4). Pp.259–76.

Rogne, O., Rachold, V., Hacquebord, L., and Corell, R. 2015. *IASC after 25 Years*. [Online]. [Accessed 4 November 2019]. Available from: <http://iasc25.iasc.info>

Rosamond, B.A. 2011. *Perspectives on security in the Arctic area*. [Online]. Copenhagen: Danish Institute for International Studies (DIIS). [Accessed 14 March 2020]. Available from: https://pure.diis.dk/ws/files/61204/RP2011_09_Arctic_security_web.pdf

Rosen, M. and Thuringer, C. 2017. *Unconstrained Foreign Direct Investment: An Emerging Challenge to Arctic Security*. [Online]. Alexandria, Virginia: Center for Naval Analyses. [Accessed 6 April 2020]. Available from: https://www.cna.org/cna_files/pdf/COP-2017-U-015944-1Rev.pdf

Rothwell, D. 1996. *The Polar Regions and the Development of International Law*. Cambridge: CUP.

Roud, E. and Gausdal, A.H. 2019. Trust and emergency management: Experiences from the Arctic Sea region. *Journal of Trust Research*. **9**(2). Pp.203-225.

Sale, R. 2008. *The Arctic: The Complete Story*. London: Francis Lincoln.

Sale, R. and Potapov, E. 2010. *The Scramble for the Arctic: Ownership, Exploitation and Conflict in the Far North*. London: Frances Lincoln.

Schaller, B. 2014. Confidence- & Security-Building Measures in the Arctic: The Organization for Security & Co-operation in Europe as a Role Model for the Area?. In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.) *Arctic Yearbook 2014*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 28 October 2019]. Available from: https://arcticyearbook.com/images/yearbook/2014/Scholarly_Papers/23.Schaller.pdf. Pp.1-19.

Schertow, J.A. 2012. *Joint Statement of Indigenous Solidarity for Arctic Protection*. [Online]. [Accessed 5 November 2019]. Available from: <https://intercontinentalcry.org/joint-statement-of-indigenous-solidarity-for-arctic-protection/>

Schreiber, M. 2018. *A new China-Iceland Arctic science observatory is already expanding its focus*. [Online]. [Accessed 10 November 2019]. Available from: <https://www.arctictoday.com/new-china-iceland-arctic-science-observatory-already-expanding-focus/>

Schroeder, U.C. 2010. *Measuring Security Sector Governance – A Guide to Relevant Indicators*. [Online]. Geneva: Geneva Centre for the Democratic Control of Armed Forces. [Accessed 21 January 2020]. Available from: https://www.dcaf.ch/sites/default/files/publications/documents/OP_20_SCHROEDER_FORM.pdf.

Scrivener, D. 1999. Arctic Cooperation in Transition. *Polar Record*. **35**(192). Pp.51–8.

Sengupta, S. 2019. *United States Rattles Arctic Talks With a Sharp Warning to China and Russia*. [Online]. [Accessed 24 November 2019]. Available from: www.nytimes.com/2019/05/06/climate/pompeo-arctic-china-russia.html?module=inline

Shi, M. and Lanteigne, M. 2018. *The (Many) Roles of Greenland in China's Developing Arctic Policy*. [Online]. [Accessed 4 April 2020]. Available from: <https://thediplomat.com/2018/03/the-many-roles-of-greenland-in-chinas-developing-arctic-policy/>

Sloan, G. (1999). 'Sir Halford J. Mackinder: The Heartland theory then and now'. *The Journal of Strategic Studies*. **22**(2-3). Pp.15-38.

Smieszek, M. 2015. 25 Years of the International Arctic Science Committee (IASC). In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.) *Arctic Yearbook 2015*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 29 October 2019]. Available from: <https://arcticyearbook.com/arctic-yearbook/2015/2015-briefing-notes/161-25-years-of-the-international-arctic-science-committee-iasc>

Snidal, D. 1985a. Coordination Versus Prisoners' Dilemma: Implications for International Cooperation and Regimes. *American Political Science Review*. **79**(1). Pp.923-942.

Snidal, D. 1985b. The Limits of Hegemonic Stability Theory. *International Organization*. **39**(1). Pp.579- 614.

Sonmez Atesoglu, H. 2013. Economic Growth and Military Spending in China. *International Journal of Political Economy*. **42**(2). Pp.88-100.

Sørensen, C.T. and Klimenko, K. 2017. *Emerging Chinese-Russia Cooperation in the Arctic: Possibilities and constraints*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 16 December 2019]. Available from: <https://www.sipri.org/sites/default/files/2017-06/emerging-chinese-russian-cooperation-arctic.pdf>.

South China Morning Post (SCMP). 2018. *China breaks the Arctic ice with launch of new research vessel Snow Dragon*. [Online]. [Accessed 29 October 2019]. Available from: <https://www.scmp.com/news/china/military/article/2163784/china-breaks-arctic-ice-launch-new-research-vessel>

Spohr, K. 2018. *The race to conquer the Arctic – the world's final frontier*. [Online]. [Accessed 4 November 2019]. Available from: <https://www.newstatesman.com/2018/03/race-conquer-arctic-world-s-final-frontier>.

Stein, A.A. 1983. Coordination and Collaboration: Regimes in an Anarchic World. In: Krasner, S. (Ed.). *International Regimes*. Ithaca: Cornell University Press. Pp.115-140.

Steinburg, P., Tasch, J., and Gerhardt, H. 2014. *Contesting the Arctic: Rethinking Politics in the Circumpolar North*. London and New York City: I.B.Tauris.

Stephen, K. 2016. *An Arctic Security Forum? Please, no!*. [Online]. [Accessed 6 March 2020]. Available from: <https://www.thearcticinstitute.org/arctic-security-forum-please-dont/>

Stewart, P., and Ali, I. 2019. *Pentagon Warns on Risk of Chinese Submarines in Arctic*. [Online]. [Accessed 28 February 2020]. Available from: <http://news.trust.org/item/20190502212503-a6q9n>

Stockholm International Peace Research Institute (SIPRI). 2019. *SIPRI Yearbook 2019: Armaments, Disarmament and International Security*. [Online]. [Accessed 16 March 2020]. Available from: <https://www.sipri.org/yearbook/2019>

Stokke, O.S. 1990. The Northern Environment: Is Cooperation Coming? *Annals of the American Academy of Political and Social Science*. **512**. Pp.58–68.

Stokke, O.S. 2011. Environmental security in the Arctic: The case for multilevel governance. *International Journal*. **66**(4). Pp.835-848.

Stokke, O.S. 2013. Regime Interplay in Arctic Shipping Governance: Explaining Regional Niche Selection. *International Environmental Agreements: Politics, Law and Economics*. **13**. Pp.65–85.

Stokke, O.S. 2014a. 'International environmental governance and Arctic security' In: Tamnes, R. and Offerdal, K. (Eds.). 'Geopolitics and Security in the Arctic: Regional dynamics in a global world'. London: Routledge.

Stokke, O.S. 2014b. Asian Stakes and Arctic Governance. *Strategic Analysis*. **38**(6). Pp.770-783.

Strader, O. 2012. *Arctic Chiefs of Defence Staff Conference: An Opportunity to Formalize Arctic Security*. [Online]. [Accessed 12 March 2020]. Available from: <https://www.thearcticinstitute.org/arctic-chiefs-defence-staff/>.

Stronski, P. and Ng, N. 2018. *Cooperation and Competition: Russia and China in Central Asia, the Russian Far East, and the Arctic*. [Online]. Washington, D.C.: Carnegie Endowment for International Peace. [Accessed 20 October 2019]. Available from: <https://carnegieendowment.org/2018/02/28/cooperation-and-competition-russia-and-china-in-central-asia-russian-far-east-and-arctic-pub-75734>.

Sun, K. 2014. Beyond the Dragon and the Panda: Understanding China's Engagement in the Arctic. *Asia Policy*. **18**(1). Pp.46-51.

Sun, Y. 2018. *The Northern Sea Route: The Myth of Sino-Russian Cooperation*. [Online]. [Accessed 7 April 2020]. Available from: <https://www.stimson.org/wp-content/files/file-attachments/Stimson%20-%20The%20Northern%20Sea%20Route%20-%20The%20Myth%20of%20Sino-Russian%20Cooperation.pdf>

Swedish Defence Research Agency (Totalförsvarets forskningsinstitut/FOI). 2019. *FOI warns of Swedish space cooperation with China*. [Online]. [Accessed 16 November 2019]. Available from: <https://www.svt.se/nyheter/inrikes/foi-varnar-for-svenskt-rymdsamarbete-med-kina?cmpid=del:tw:20190113:foi-varnar-for-svenskt-rymdsamarbete-med-kina:nyh:lp>. [Swedish].

Talmadge, C. 2019. *China and Nuclear Weapons*. [Online]. Washington, D.C.: Brookings Institution. [Accessed 2 April 2020]. Available from:

https://www.brookings.edu/wp-content/uploads/2019/09/FP_20190930_china_nuclear_weapons_talmadge-1.pdf

Tata, S. 2017. *Deconstructing China's Energy Security Strategy*. [Online]. [Accessed 1 April 2020]. Available from: <https://thediplomat.com/2017/01/deconstructing-chinas-energy-security-strategy/>.

The Arctic Institute. 2011. *About us*. [Online]. [Accessed 28 October 2019]. Available from: <https://www.thearcticinstitute.org/about-us/>

The Arctic Institute. 2018. *The Arctic This Week Take Five: Week of November 19, 2018*. [Online]. [Accessed 4 December 2019]. Available from: <https://www.thearcticinstitute.org/arctic-week-take-five-week-november-19-2018/>.

The Arctic Institute. 2020. *China*. [Online]. [Accessed 3 November 2019]. Available from: <https://www.thearcticinstitute.org/countries/china/>

The Arctic Review of Law and Politics. 2010. *Archives*. [Online]. [Accessed 26 October 2019]. Available from: <https://arcticreview.no/index.php/arctic/issue/archive>

The Pentagon. 2019. *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019*. [Online]. [Accessed 12 November 2019]. Available from: https://media.defense.gov/2019/May/02/2002127082/-1/-1/1/2019_CHINA_MILITARY_POWER_REPORT.pdf

The Polar Connection. 2016. *PRPI Private Launch Features in the Arctic Journal*. [Online]. [Accessed 26 October 2019]. Available from: <http://polarconnection.org/former-prime-minister-greenland-aleqa-hammond-launches-uks-first-polar-regions-think-tank/>.

The Polar Journal. 2011. *The Polar Journal: List of Issues*. [Online]. [Accessed 26 October 2019]. Available from: <https://www.tandfonline.com/loi/rpol20>

The State Council Information Office of the People's Republic of China (SCIO). 2019. *China's National Defense in the New Era*. [Online]. Beijing: State Council Information Office of the People's Republic of China. [Accessed 3 February 2020]. Available from: <http://www.andrewerickson.com/2019/07/full-text-of-defense-white-paper-chinas-national-defense-in-the-new-era-english-chinese-versions/>

The State Council Information Office of the People's Republic of China (SCIO). 2018. *China's Arctic Policy*. [Online]. [Accessed 10 October 2019]. Available from: <http://www.scio.gov.cn/zfbps/32832/Document/1618243/1618243.htm>

The White House. 2018. *Remarks by National Security Advisor Ambassador John R. Bolton on the Trump Administration's New Africa Strategy*. [Online]. [Accessed 14 March 2020]. Available from: <https://www.whitehouse.gov/briefings-statements/remarks-national-security-advisor-ambassador-john-r-bolton-trump-administrations-new-africa-strategy/>

The Whitehouse. 2019. *Remarks by President Trump and President Niinistö of the Republic of Finland in Joint Press Conference*. [Online]. [Accessed 28 October 2019]. Available from: <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-president-niinisto-republic-finland-joint-press-conference/>.

Tiainen, H., Sairinen, R. and Sidorenko, O. 2015. Governance of Sustainable Mining in Arctic Countries: Finland, Sweden, Greenland & Russia. In: Heininen, L., Exner-Pirot, H. and Plouffe, J. (Eds.) *Arctic Yearbook 2015*. [Online]. Akureyri, Iceland: Northern Research Forum. [Accessed 28 March 2020]. Available from: https://arcticyearbook.com/images/yearbook/2015/Scholarly_Papers/7.Governance-of-Sustainable-Mining.pdf.

Tiezzi, S. 2015. *China's Navy Makes First-Ever Tour of Europe's Arctic States*. [Online]. [Accessed 4 January 2020]. Available from: <https://thediplomat.com/2015/10/chinas-navy-makes-first-ever-tour-of-europes-arctic-states>.

Tilling, R., Young, T., Christoffersen, P., Lok, L., Brennan, P., and Nicholls, K. 2017. Radar observations of Arctic Ice. In: Kelman, I. (Ed.) *Arcticness: Power and Voice from the North*. London: UCL Press. Pp.27-39.

Tingstad, A. 2020. *Today's Arctic Diplomacy Can't Handle Tomorrow's Problems*. [Online]. Santa Monica, CA: RAND Corporation. [Accessed 10 March 2020]. Available from: <https://www.defenseone.com/ideas/2020/01/todays-arctic-diplomacy-cant-handle-tomorrows-problems/162719/>.

Tolvanen, A., Eiluc, P., Juutinena, A., Kangasa, K., Kivinenc, M., Markovaara-Koivistoc, M., Naskalie, A., Salokannelf, V., Tuulentiee, S. and Similäf, J. 2019. Mining in the Arctic environment – A review from ecological, socioeconomic and legal perspectives. *Journal of Environmental Management*. **233**. Pp.832-844.

Trump, D. 2019. Quoted In: Brennan, D. *Donald Trump Says U.S. Will Block China From Expanding to the Arctic: "We Won't Let It Happen"*. [Online]. [Accessed 16 November 2019]. Available from: <https://www.newsweek.com/donald-trump-us-block-china-expanding-arctic-1462953>.

U.S. Geological Survey (USGS). 2008. *Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle*. [Online]. [Accessed 20 October 2019]. Available from: <https://pubs.usgs.gov/fs/2008/3049/>

UARctic. 2001. *About us*. [Online]. [Accessed 27 October 2019]. Available from: <https://www.uarctic.org/about-uarctic/>.

Underdal, A. 1992. The Concept of "Regime Effectiveness." *Cooperation and Conflict*. **27**(1). Pp.227-240.

United States Coast Guard (USCG). 2019. *United States Coast Guard Arctic Strategic Outlook*. [Online]. [Accessed 16 March 2020]. Available from:

https://www.uscg.mil/Portals/0/Images/arctic/Arctic_Strategic_Outlook_APR_2019.pdf

United States Department of Defense (DoD). 2018a. *Nuclear Posture Review*. [Online]. [Accessed 6 April 2020]. Available from: <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>.

United States Department of Defense (DoD). 2018b. *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military Competitive Edge*. [Online]. [Accessed 10 March 2020]. Available from: <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

United States Department of Defense (DoD). 2019. *Department of Defense Arctic Strategy*. [Online]. [Accessed 4 November 2019]. Available from: <https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF>

US Government Accountability Office (USGAO). 2018. *Arctic Planning: Navy Report to Congress Aligns with Current Assessments of Arctic Threat Levels and Capabilities Required to Execute DOD's Strategy*. [Online]. [Accessed 26 March 2020]. Available from: <https://www.gao.gov/products/GAO-19-42>

van der Togt, T. 2019. *The EU, Russia and the Future of European Security*. [Online]. The Hague: Clingendael Institute. [Accessed 7 April 2020]. Available from: <https://www.clingendael.org/publication/conflict-prevention-and-regional-cooperation-arctic>

Vandiver, J. 2019. *China tops agenda as military leaders from 11 nations mull Arctic security*. [Online]. [Accessed 3 April 2020]. Available from: <https://www.stripes.com/news/china-tops-agenda-as-military-leaders-from-11-nations-mull-arctic-security-1.579881>

Von Uexküll, A. 2012. *Institutional reform of the Arctic Council*. [Online]. [Accessed 16 November 2019]. Available from: https://arctic-council.org/images/PDF_attachments/Observer_DMM_2012/ACOBSDMMSE01_Sto ckholm_2012_Observer_Meeting_Presentation_Institutional_Reform.pdf

Wallace, M. and S. Staples. 2010. *Ridding the Arctic of Nuclear Weapons: A Task Long Overdue*. [Online]. Ottawa: Canadian Pugwash Group, Toronto, and Rideau Institute. [Accessed 16 March 2020]. Available from: <https://assembly.nu.ca/library/Edocs/2010/001500-e.pdf>

Wang, M. and Overland, J.E. 2012. A sea ice free summer Arctic within 30 years: An update from CMIP5 models. *Geophysical Research Letters*. **39**. Pp.1-6.

Ward, A. and Hook, L. 2011. *Chinese tycoon seeks to buy tract of Iceland*. [Online]. [Accessed 26 March 2020]. Available from: <https://www.ft.com/content/f8b36ed2-d25d-11e0-9137-00144feab49a>

Wegge, N. 2011. The political order in the Arctic: power structures, regimes and influence. *Polar Record*. **47**(2). Pp.165–176.

Wei, Z., Chen, H., Lei, R., Yu, X., Zhang, T., Lina, L., Tian, Z., Zhuang, Y., Li, T. and Yuan, Z. 2020. 'Overview of the 9th Chinese National Arctic Research Expedition'. *Atmospheric and Oceanic Science Letters*. **13**(1). Pp.1-7.

Weitz, R. 2015. *Parsing Chinese-Russian Military Exercises*. Carlisle, PA: Strategic Studies Institute of the US Army War College.

Wezeman, S. 2012. *Military Capabilities in the Arctic*. [Online]. Stockholm: Stockholm International Peace Research Institute (SIPRI). [Accessed 20 March 2020]. Available from: <https://www.sipri.org/publications/2012/sipri-background-papers/military-capabilities-arctic>

White, D. 2007. *Bitter Ocean: The Battle of the Atlantic, 1939-1945*. New York: Simon and Schuster.

Willis, M. and Depledge, D. 2014. *How We Learned to Stop Worrying About China's Arctic Ambitions: Understanding China's Admission to the Arctic Council, 2004-2013*. [Online]. [Accessed 22 November 2019]. Available from: <http://www.thearcticinstitute.org/2014/09/092214-China-arctic-ambitions-arctic-council.html>.

Wilson, P. 2015. Society, steward or security actor? Three visions of the Arctic Council. *Cooperation and Conflict*. **51**(1). Pp.55–74.

Wodiske, B. 2014. Preventing the Melting of the Arctic Council: China as a Permanent Observer and What It Means for the Council and the Environment. *Loyola of Los Angeles International and Comparative Law Review*. **35**. Pp.305-330.

World Economic Forum (WEF). 2019. *Is a U.S–China power transition inevitable?*. [Online]. [Accessed 3 December 2019]. Available from: <https://www.weforum.org/agenda/2019/01/is-a-us-china-power-transition-inevitable/>.

World Wide Fund for Nature (WWF). 2018. *Getting it Right in a New Ocean: Bringing Sustainable Blue Economy Principles to the Arctic*. [Online]. [Accessed 13 November 2019]. Available from: https://arcticwwf.org/site/assets/files/2048/summary_arctic_blue_economy_web.pdf.

Wright, D.C. 2011. *The Dragon Eyes the Top of the World: Arctic Policy Debate and Discussion in China*. Newport: Naval War College.

Yang, J. 2018. An Interpretation of China's Arctic Policy. *Pacific Journal*. **26**(3). Pp.1–11. [Chinese].

Young O.R. 2019b. Building the “New” Arctic: The Future of the Circumpolar North in a Changing Global Order. *The Contours of Global Transformations: Politics, Economics, Law*. **12**(5). Pp.6-24.

Young O.R., Berkman P.A., and Vylegzhnin A.N. 2020. Governing Arctic Seas: Sustainability in the Bering Strait and Barents Sea Regions. In: Young, O.R., Berkman, P.A. and Vylegzhnin, A. (Eds.). *Governing Arctic Seas: Regional Lessons from the Bering Strait and Barents Sea*. Berlin: Springer. Pp.3-21.

Young, O.R. 1985. The Age of the Arctic. *Foreign Policy*. **61**. Pp.160-179.

Young, O.R. 1994. *International Governance: Protecting the Environment in a Stateless Society*. Ithaca: Cornell University Press.

Young, O.R. 2002. Can the Arctic Council and the Northern Forum Find Common Ground?. *Polar Record*. **38**(207). Pp.289–96.

Young, O.R. 2005. Governing the Arctic: From Cold War Theater to Mosaic of Cooperation. *Global Governance*. **11**(1). Pp.9-15.

Young, O.R. 2009. The Arctic in Play: Governance in a Time of Rapid Change. *The International Journal of Marine and Coastal Law*. **24**(2). Pp.423-442.

Young, O.R. 2011. The Future of the Arctic: Cauldron of Conflict or Zone of Peace?. *International Affairs*. **87**(1). Pp 185-193.

Young, O.R. 2012. Building an international regime complex for the Arctic: current status and next steps. *The Polar Journal*. **2**(2). Pp.391-407.

Young, O.R. 2016. Governing the Arctic Ocean. *Marine Policy*. **72**. Pp.271–7.

Young, O.R. 2018. Informal Governance Mechanisms: Listening to the Voices of Non-Arctic States in Arctic Ocean Governance. In: Corell, R.W., Kim, J.D., Kim, Y.H., Moe, A., Van der

Zwaag, D.L. and Young, O.R. (Eds.). *The Arctic in World Affairs: A North Pacific Dialogue on Arctic 2030 and Beyond: Pathways to the Future*. Republic of Korea: Korea Maritime Institute.

Young, O.R. 2019. Is It Time for a Reset in Arctic Governance?. *Sustainability*. **11**(4497). Pp.1-12.

Young, O.R. and Stokke, O.S. 2020. Why is it hard to solve environmental problems? The perils of institutional reductionism and institutional overload. *International Environmental Agreements*. **20**(1). Pp.5-19.

Zellen, B. 2010. Cold Front: Hillary, Ottawa, and the Inuit: A Year after the Inuit Re-Assert their Sovereignty, Washington Takes Their Side. *Journal of Military and Strategic Studies*. **12**(3). Pp.1488-559.

Zellen, B.S. 2009. *Arctic Doom, Arctic Boom: The Geopolitics of Climate Change in the Arctic*. Santa Barbara, CA, Denver, CO and Oxford: Praege.

Zhong, X.Z. 2016. Policies and Measures to Transform China into a Low-carbon Economy. In: Song, L., Garnaut, R., Fang, C. and Johnston, L. (Eds.). *New Sources of Economic Growth: Vol. 1*. Canberra: ANU Press.

Zou, Y., Wang, Y., Zhang, Y. and Koo, J.H. 2017. Arctic sea ice, Eurasia snow, and extreme winter haze in China. *Science Advances*. **3**(3). Pp.1-8.

Zurn, M. 2012. Global governance as multi-level governance. In: Levi-Faur, D. (Ed.). *The Oxford Handbook of Governance*. Oxford: Oxford University Press. Pp.730-43.

Zurn, M. 1993. Problematic Social Situations and International Institutions: On the Use of Game Theory in International Politics. In: Pfetsch, F.R. (Ed.). *International Relations and Pan-Europe: Theoretical Approaches and Empirical Findings*. Minster: Lit Verla. Pp. 63-84.

Zysk, K. 2011. The Evolving Arctic Security Environment: An Assessment. In: Blank, S.J. (Ed.). *Russia in the Arctic*. Carlisle, PA: Strategic Studies Institute of the US Army War College.

Examples Provided by JKEssay

Appendix

Table 1: Detailed explanation of the ‘objectives, attributes, characteristics, outputs and outcomes of environmental governance’ (Bennett and Satterfield, 2018, pp.3-6).

Objectives	Attributes (Qualities or Capacities)	General Characteristics or Inputs (Capacity)	Idealized Outputs (Functioning)	Idealized Outcomes (Performance)
Effective Supports maintenance of system integrity and functioning.	Direction	Scope, goals and aims are comprehensive, clearly articulated and communicated to stakeholders. Clear boundaries on action and scope exist.	Defines what effective action encompasses and sets milestones for achieving success.	<ul style="list-style-type: none"> • Improvement in ecosystem functioning. • Greater biodiversity or species. • Increases in productivity of system or provisioning of ecosystem services. • Better environmental health.
	Coordination	The roles, functions, and mandates of different governments, agencies and organizations are coordinated. A coordinating body or unit is present.	Produces system of rules for use, mechanisms for exclusion, management actions and spatial coverage that are complementary and adequate to achieve objectives. Provides a forum for discussion, debate, negotiating and resolving trade-offs.	
	Capacity	Capacity, skills and resources are sufficient and are being actively developed. Capable and visionary leadership is present. Mechanisms are present to resolve conflicts between groups.	Enables successful decision-making and the initiation, organization, implementation and evaluation of actions.	
	Informed	Planning and management decisions and actions are informed by best available information and integration of a diversity of knowledge types and systems.	Increases the likelihood that management actions will lead to effective outcomes.	
	Accountable	Procedures are present to hold governors accountable for performance of system. Mechanisms are in place to ensure that means and rationales for making decisions are transparent.	Ensures that governors act on mandated decisions and that effective actions are being taken.	
	Efficient	Efficacy guides decisions regarding management actions and deployment of resources. Time requirements of actors are reasonable. Economic costs and actions taken are commensurate with productivity of system.	Maximizes the productivity of management actions while minimizing the wasteful use of available resources.	

Objectives	Attributes (qualities or capacities)	General characteristics or inputs (capacity)	Idealized outputs (functioning)	Idealized Outcomes (performance)
Equitable Employs inclusive processes and produces fair outcomes.	Recognition	Policies and processes ensure acknowledgement of, respect for and incorporation of diverse perspectives, values, cultures and rights. Views of marginalized and vulnerable groups are considered.	Facilitates socially acceptable governance and perceptions of legitimacy. Aids in the design of management actions that are appropriate to the social context.	<ul style="list-style-type: none"> • Inclusion in decision-making processes. • Improved socio-economic outcomes. • Increases in quality of life or wellbeing. • More fair distribution of wealth. • Better access to justice
	Participation	Spaces and processes to enable participation and collective choice are present. Structures that ensure the representation and engagement of different stakeholder groups are in place.	Contributes to just power relations and decision-making processes. Leads to plans and actions that represent the interests of different groups. Allows parties to democratically debate decisions and maintain dignity.	
	Fair	Mechanisms are in place to ensure socio-economic costs and benefits are just and fairly distributed. Rights and responsibilities are shared and assigned fairly. Unequal circumstances are considered.	Ensures a fair balance of costs and benefits accrue to different groups.	
	Just	Laws and policies are present to protect local rights and mechanisms ensure that groups have access to justice.	Ensures rights (e.g., title, historical tenure, access, use, management) are not undermined and that reparations or compensation are made for past damages.	
Responsive Enables adaptation to diverse contexts and changing conditions.	Learning	Monitoring, evaluation, reflections and communication of performance is institutionalized. Processes and platforms are in place to co-produce knowledge and enhance social and institutional memory.	Ensures that information is produced, documented, shared and informs decision-making.	<ul style="list-style-type: none"> • Enables the resilience of resource. • Enables the resilience of local communities. • More adaptable institutions to changing conditions. • More flexible institutions that can be altered to work in different contexts.
	Anticipatory	Long-term planning and foresight thinking are institutionalized. Known and unknown risks and opportunities are considered, analyzed and planned for.	Produces plans and steps to prepare and prevent consequences of unexpected risks. Enhances knowledge, capacity and flexibility for disturbance.	

	Adaptive	Spaces for reflection and deliberation are institutionalized. Processes exist to revisit and evolve policies, institutions and adapt actions.	Ensures that management plans and actions are being actively adapted to reflect changing social-ecological contexts and new knowledge.		
	Innovative	Innovation and experimentation is encouraged and success and failures are monitored. A higher risk tolerance is embodied.	Allows change to be seen as an opportunity. Enables new and more effective ideas and actions to emerge.		
	Flexible	Policies exist that recognize the need to downscale environmental management and conservation models to fit local realities. Efforts are taken to understand and document about the diverse contexts where policies are applied and to deliberate on necessary adjustments.	Enables governance systems and management models to be adjusted to better fit with local social, cultural, political, economic and environmental contexts.		
Robust	Ensures functioning institutions persist, maintain performance and cope with perturbations and crises.	Legitimate	A collective vision shapes policies and guides actions at all scales. Institutional legitimacy is conferred (e.g., in policy) and perceived (e.g., by constituents). Governors act with integrity and consistency. Institutions are transparent.	Ascertains that there is support from above and that there is a supportive constituency.	<ul style="list-style-type: none"> • Institutions are strengthened and well supported. • Institutional performance and functioning is more or less consistent. • Institutions persist over time.
	Connected	Networks of organizations and actors are strongly linked vertically and horizontally. Bridging organizations are present. Processes are in place to support network development, to develop social relations and to support mutual learning.	Helps to bridge between and across scales. Creates supportive community, produces social capital, fosters respect and trust and builds social memory. Encourages communication, information exchange, enables diffusion of innovations, and facilitates		
	Nested	Tasks are assigned to appropriate levels. Decision-making authority and responsibility are conferred to the lowest level possible. Self-organization is encouraged and supported. Authority and responsibility is supported by adequate state or other outside support (legal recognition, political will, time commitment) and oversight	Empowers appropriate entity to take necessary action. Allows also for shaping and adapting institutions and decision-making processes to different local sub-contexts (social circumstances, governance, ecologies) within larger system.		
	Polycentric	Decision-making and action taking centers in multiple places, across jurisdictions and at multiple scales interact and cohere towards a common goal. Institutions are present that are diverse and redundant - that serve similar purposes and have overlapping jurisdictions	Helps to buffer against change in one location. Ensures that the governance system does not collapse when faced with adversity or crises.		

Table 2: Detailed explanation on the 'Dimensions, Indicators, Data Sources' that combine to constitute a framework through which we can assess security governance (Schroeder, 2010, p.16).

Dimension	Indicators	Data Sources
War and violent conflict	Involvement in internal and external violent conflicts	<ul style="list-style-type: none"> Uppsala Conflict Data Program/PRIO Armed Conflict Dataset and Battle Death Data CIDCM International Crisis Behavior HIK Conflict Barometer Global Peace Index
	Foreign policy and military crises	
	Battle deaths	
Militarisation	Military expenditure	<ul style="list-style-type: none"> IISS Military Balance SIPRI military expenditures Small Arms Survey Global Peace Index
	Proliferation of arms	
	Weapons systems in use	
Culture of peace	Level of structural and cultural violence	<ul style="list-style-type: none"> Global Peace Index

International Peace and Security: Dimensions, Indicators, Data Sources

Examples Provided

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Figure 1: Potential Arctic shipping routes and their overlap with fossil fuel resource estimates (Nakano and Li, 2018).



Source: Center for Strategic and International Studies / Energy and National Security Program (January 2018); created with Arctic Portal Mapping Tools. Purple areas represent U.S. Geological Survey oil and gas reserve estimates; Arctic Council member states are highlighted in green, and observer states are highlighted in blue.

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Figure 2: Non-living Arctic resource potential: oil and gas reserves and mining sites (Nordregio. 2019).

