

AN ARCTIC NUCLEAR-WEAPON-FREE
ZONE:
CIRCUMPOLAR NON-NUCLEAR WEAPONS
STATES MUST ORIGINATE NEGOTIATIONS

*J. Adele Buckley*¹*

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INTRODUCTION

The presence of nuclear weapons in the Arctic, on or under the sea, in the air, or in land-based missiles is a threat to global stability that could be eliminated. The two greatest security threats of the 21st century are nuclear weapons and climate change. Arctic ice is experiencing a climate-change-induced meltdown, which is bringing about great upheavals in the

¹ *M.Sc.(Physics, University of Alberta), Ph.D. (Aerospace Engineering, University of Toronto), D.Sc. (Hon., University of Toronto). Physicist, engineer and environmental scientist. Past Chair of the Canadian national group of the Pugwash Conferences on Science and World Affairs, currently Treasurer, Executive Committee; member international Pugwash Council. Formerly V.P. Technology and Research, Ontario Centre for Environmental Technology Advancement; formerly V.P. Solarchem Environmental Systems; founding partner of Sciex, later a division of MDS Inc.

commercial exploitation of Arctic resources, the international governance of the Arctic, ecosystems and the indigenous way of life. Climate change in the Arctic affects the entire global weather system, and weather extremes are already being felt world wide – a harbinger of broader climate change to come. Although the current risk of Arctic conflict is low, the global instability caused by climate change will increase tensions. Military threats and action may occur anywhere in the global community, and could be initiated from Arctic bases. At present, the circumpolar nations,² and others, are putting in place many national, bi-national, and multilateral agreements, with the intent of supporting an orderly opening of the previously inaccessible Arctic. Circumpolar nations are striving for a cooperative security environment, in a non-militarized Arctic. Now is the right time to put in place the foundations of a future nuclear-weapon-free Arctic.

I. THE EVOLVING ARCTIC

There will be navigation routes open for use in summer seas; estimates for an ice-free Arctic in the summer months place it as early as 2020 and as late as 2050.³ A few commercial shipments are already occurring. The Northeast Passage, offshore of Russia, is quite active; Russian icebreakers guided ships through (at a cost).⁴ The Northwest Passage, off Canadian shores, will take longer to warm, but is already a subject of tourist voyages

² Nuclear Weapons States [hereinafter NWS] – United States, Russia; Non-Nuclear Weapons States [hereinafter NNWS] – Canada, Denmark (Greenland), Finland, Iceland, Norway, Sweden.

³ ROB HUEBERT ET AL., CTR. FOR CLIMATE AND ENERGY SOLUTIONS CLIMATE CHANGE & INTERNATIONAL SECURITY: THE ARCTIC AS A BELLWETHER 12 (2012), available at <http://www.c2es.org/docUploads/arctic-security-report.pdf>; Muyin Wang & James E. Overland, *A sea ice free summer Arctic within 30 years?*, 36 GEOPHYSICAL RES. LETTERS, Apr. 2009, at 2-3.

⁴ Trude Petterson, *46 Vessels through Northern Sea Route*, BARENTS OBSERVER.COM (Nov. 23, 2012), <http://barentsobserver.com/en/arctic/2012/11/46-vessels-through-northern-sea-route-23-11>.

and a few commercial trips.⁵ Further, as the Chinese demonstrated in summer 2012, a passage of an icebreaker vessel, straight across the ice, outside any territorial waters of the Arctic Ocean is already possible.⁶ This interesting development takes place in the presence of massive deficiencies in infrastructure, significant need for new regulations, unprepared ships, and virtually no crew with experience in Arctic conditions.

The Arctic as a new frontier for resource exploration and development is being well publicized in a world where easily accessible sources of oil and gas continue to be depleted. This will be a major issue within the Arctic Council. The Chair of the Arctic Council⁷ was assumed by Canada at the 2013 Meeting, and will pass to the United States in 2015. Operating in Arctic waters is technically difficult, and very risky, as amply demonstrated by the experience of Shell with its drilling platform (a ship) in the Chukchi Sea. Despite the relatively easy exploratory site, in Arctic geography, the drilling ship broke free and had to be abandoned.⁸ Pressure to indefinitely delay drilling⁹

⁵ Michael Byers, *International Law and the Arctic*, Cambridge University Press, 2013, 8-5, 269; *Nordic Orion out of the Northwest Passage*, MAR. DENMARK (Sept. 24, 2013 8:00 AM), <http://www.maritimedanmark.dk/?Id=17208>. The Danish-owned freight ship *Nordic Orion* travelled the Northwest Passage on its voyage from Vancouver to Finland. *Id.*

⁶ *Xue Long Entered the Sea-Ice Zone of the Arctic Ocean*, CHINARE5.COM, <http://www.chinare5.com/news/33-xue-long-entered-the-sea-ice-zone-of-the-arctic-ocean> (last visited Oct. 29, 2013).

⁷ Arctic Council Leadership Transition at Eighth Ministerial Meeting reported that the Chair of the Arctic Council was assumed in May 2013 by The Honourable Leona Aglukkaq, Minister of Health, Minister of the Canadian Northern Economic Development Agency and Minister for the Arctic Council, <http://www.arcus.org/witness-the-arctic/2013/2/article/19974> (last visited Sept. 7, 2013).

⁸ Jim Efstathiou Jr., *Rig Grounding Revives Debate Over Shell's Arctic Drilling*, BLOOMBERG NEWS (Jan. 3, 2013, 8:09PM), <http://www.bloomberg.com/news/2013-01-03/rig-grounding-revives-debate-over-shell-s-arctic-drilling.html>.

⁹ Frances Beinecke, *Six Reasons Why Offshore Drilling in the Arctic Cannot Be Done Safely*, NRDC SWITCHBOARD, June 10, 2013, http://switchboard.nrdc.org/blogs/fbeinecke/six_reasons_why_offshore_drill.html; *See also* - Bob Weber, *Arctic aboriginals call for end to offshore drilling, pause in northern energy projects*, GLOBE & MAIL (May 13, 2013), <http://www.theglobeandmail.com/news/national/arctic-aboriginals-call-for-end-to-offshoredrilling-pause-in-northern-energy-projects/article11901715/>.

for hydrocarbons in Arctic waters is growing; there is opposing pressure in favor of exploratory drilling, and governments, as in Canada¹⁰ and Norway,¹¹ are issuing permits. At the Arctic Council Ministerial meeting in May 2013, Arctic Ministers signed the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic.¹² These arrangements reduce risk, but are unable to provide sufficient protection in the severe Arctic environment.

Many fishing fleets are eyeing the Arctic Ocean as a new source of supply, even though data on fish stocks is virtually non-existent. Regulatory control is weak; an international agreement on fisheries protection beyond the 200 mile limit would assist with sustainable use, but means of enforcement would also be necessary.¹³

Permafrost is melting, both undersea and on land.¹⁴ Since permafrost contains vast stores of methane and/or methyl hydrates [which convert to methane], release of this stored potent

¹⁰ Press Release, U.S. Department of State, Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, May 15, 2013, explaining that document was signed at the Arctic Council Ministerial meeting in May 2013 and that Minister Aglukkaq stated Canada would continue to work on oil-spill prevention during its chairmanship; *Federal-Provincial Cooperation Modernizing Liability for Offshore Petroleum Drilling Operators*, NAT. RESOURCES CAN. (June 18, 2013), <http://www.nrcan.gc.ca/media/photo-public-eng.php?start=20> (last visited Oct. 29, 2013) (Stating “[t]he Honourable Joe Oliver, Canada’s Minister of Natural Resources, with the Honourable Darrell Dexter, Premier of Nova Scotia, announced plans to support jobs and enhance our world-class offshore petroleum drilling regime by raising the absolute liability for companies operating in the Atlantic offshore to \$1 billion from \$30 million. Minister Oliver also announced that offshore absolute liability would be increased from \$40 million to \$1 billion in the Arctic.”).

¹¹ Gwladys Fouche, *UPDATE 2-Norway awards Arctic oil licences in northwards push*, REUTERS (June 12, 2013, 8:28 AM), <http://www.reuters.com/article/2013/06/12/norway-oillicensing-idUSL5N0EO1MU20130612>.

¹² Press Release, Office of the Spokesperson, Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (May 15, 2013), <http://www.state.gov/r/pa/prs/ps/2013/05/209406.htm>.

¹³ Byers, *supra* note 5, at 178.

¹⁴ Martin O. Jeffries, James E. Overland, & Donald K. Perovich, *The Arctic Shifts to a New Normal*, 66 PHYSICS TODAY 35, 36 (Oct., 2013), available at <http://dx.doi.org/10.1063/PT.3.2147>.

greenhouse gas would be a major driver of further global warming,¹⁵ which in itself poses a serious security threat.¹⁶ Permafrost also poses a threat to Arctic infrastructure.¹⁷ Building foundations, pipelines, existing or potential highways can all suffer major collapse from instability of underlying permafrost.

Because ocean levels are rising, and Arctic storms are anticipated to be more violent, coastal regions will experience severe seasonal flooding.¹⁸ Thus some coastal communities will no longer be viable and the inhabitants will have to leave permanently. Inland, the glaciers, lakes and rivers are no longer ecologically stable.¹⁹ Permanent changes to the land and sea are occurring,²⁰ and so the northern aboriginal community and its wildlife must adapt to change in habitat, nature of species, and food supply webs on which all depend.

Without intervention, human insecurity will increase, so a massive adaptation will be necessary. At issue are food, water, housing and health. Arctic peoples, aboriginal and other, have repeatedly stated that they have a right to participate in decisions that affect their lives.²¹ Overall, it is anticipated that they will be present at national, bi-national and multilateral negotiations,²²

¹⁵ *Id.* at 38.

¹⁶ HUEBERT ET AL., *supra* note 3, at 1, 5.

¹⁷ Jeffries, *supra* note 14, at 39.

¹⁸ SUSAN JOY HASSOL, IMPACTS OF A WARMING ARCTIC 79 (2004).

¹⁹ John P. Smol & Marianne S. V. Douglas, *Crossing the Final Ecological Threshold in High Arctic Ponds*, 104 PROC. OF THE NAT'L ACAD. OF SCI. OF THE U.S. 12395, 12395 (2007), available at <http://www.pnas.org/content/104/30/12395.full.pdf+html>.

²⁰ ROSENBERG INT'L FORUM, THE MACKENZIE RIVER BASIN: REPORT OF THE ROSENBERG INTERNATIONAL FORUM'S WORKSHOP ON TRANSBOUNDARY RELATIONS IN THE MACKENZIE RIVER BASIN 22 (2013), available at <http://theyee.ca/Documents/2013/06/10/Rosenberg-Report.pdf>.

²¹ INUIT CIRCUMPOLAR CONF., PRINCIPLES AND ELEMENTS FOR A COMPREHENSIVE ARCTIC POLICY 13 (1992).

²² Arctic Council, Declaration on the Establishment of the Arctic Council, (Sept. 19, 1996), 35 I.L.M. 1387, 1388 [hereinafter Ottawa Declaration] ("Recognizing the traditional knowledge of the indigenous people of the Arctic and their communities and taking note of its importance..."); See generally, ARCTIC COUNCIL, DEVELOPMENT FOR THE PEOPLE OF THE NORTH: THE ARCTIC COUNCIL PROGRAM DURING CANADA'S CHAIRMANSHIP 2013-2015 (2013), available at <http://www.arctic-council.org/index.php/en/document-archive/category/425-main-documents-from-kiruna-ministerial-meeting?>

but the degree of aboriginal influence has yet to be demonstrated.

A. Military Presence in the Arctic

“Circumpolar Military Facilities of the Arctic Five”²³ has extensive lists of such facilities for Canada, United States, Russia, Norway and Denmark. All circumpolar states are increasing their military capacity in the Arctic.²⁴ While this could signal a combative stance, all participants state that they intend a cooperative mode of operation, and their presence is established for the purpose of maintaining sovereignty and stability.²⁵ Military and coast guard equipment and trained personnel have the greatest ability to conduct search and rescue operations, assist with environmental emergencies, and assure compliance with regulations.

Arctic states, noting that there is no military threat in the region, in their self-interest, are committed to cooperation and peace in the Arctic. A May 2011 DOD report to the U.S. Congress is cited in a report from the Congressional Research Service “Changes in the Arctic: Background Issues for Congress.”²⁶

Strategic guidance on the Arctic is articulated in National Security Presidential Directive (NPSD) 66/Homeland Security Presidential Directive (HSPD) 25, *Arctic Region Policy*. Additional guidance is found in *the National Security Strategy (NSS) and the*

download=1763:canadian-chairmanship-program-2013-2015-english (describing the objectives of the Arctic Council).

²³ ERNIE REGEHR, THE SIMONS FOUNDATION, CIRCUMPOLAR MILITARY FACILITIES OF THE ARCTIC FIVE (2013), *available at* <http://www.thesimonsfoundation.ca/sites/all/files/Circumpolar%20Military%20Facilities%20-%20updated%2021%20August%202013.pdf>.

²⁴ FRANKLIN GRIFFITHS ET AL., CANADA AND THE CHANGING ARCTIC: SOVEREIGNTY, SECURITY, AND STEWARDSHIP 50 (2011).

²⁵ *Id.* at 38; Gerard O’Dwyer, *Arctic Nations Set Cooperation Guidelines*, DEFENSENEWS (Jun. 27, 2013, 2:30 PM), <http://www.defensenews.com/article/20130627/DEFREG01/306270013/Arctic-Nations-Set-Cooperation-Guidelines>.

²⁶ RONALD O’ROURKE, CONG. RESEARCH SERV., R41153, CHANGES IN THE ARCTIC: BACKGROUND AND ISSUES FOR CONGRESS 51 (2013).

2010 *Quadrennial Defense Review (QDR)*. The overarching strategic national security objective is a stable and secure region where U.S. national interests are safeguarded and the U.S. homeland is protected. This objective is consistent with a regional policy that reflects the relatively low level of threat in a region bounded by nations states that have not only publicly committed to working within a common framework of international law and diplomatic engagement, but also demonstrated ability and commitment to doing so over the last fifty years.

Each state needs to be assured of the ability to defend its core interests. This scenario does not have a strategic role for nuclear weapons. However, the Arctic is host to nuclear-weapon-equipped submarines, flights of nuclear-weapon-equipped bombers and ballistic missile launch sites.²⁷ This anomaly has no benefits; whereas an Arctic free of nuclear weapons strengthens international peace and security, and lessens risk of conflict escalation wherever it occurs in the world. Removing nuclear armaments from the Arctic could be a mechanism to reduce the total global count of nuclear weapons, build confidence and demonstrate the intent to comply with the Non-Proliferation Treaty.²⁸ Unless this elimination is done expeditiously, then every one of the five nuclear weapons states (NWS) could potentially decide to deploy their nuclear-weapon-equipped submarines to patrol in the Arctic Ocean.²⁹

II STATUS OF NUCLEAR WEAPONS IN INTERNATIONAL LAW

The efforts of many to diminish the role of nuclear weapons in national security strategy and to eliminate nuclear weapons have focussed, in recent times, on examining the support for this

²⁷ REGEHR, *supra* note 23.

²⁸ *Treaty on the Non-Proliferation of Nuclear Weapons*, entered into force Mar. 5, 1970, 21 U.S.T. 483 [hereinafter NPT].

²⁹ See generally REGEHR, *supra* note 23 (explaining the nuclear capabilities of various state actors in the Arctic).

goal under International Humanitarian Law and Binding Customary Law.

The key point of reference is the 1996 advisory opinion of the International Court of Justice (ICJ). Included is the following:

the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law . . . a use of force that is proportionate under the law of self-defence, must, in order to be lawful, also meet the requirements of the law.³⁰

The use of nuclear weapons would not be considered proportionate because their destructive power cannot be contained in either time or space (due to extreme effects of blast, heat and radiation).³¹ Further the advisory opinion says: “There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.”³²

The International Committee of the Red Cross (ICRC) undertook a major study in 2005, and concluded that nuclear weapons are illegal under universally binding customary law.³³ In 2010, the President of ICRC³⁴ reaffirmed “the need for all States at all times to comply with applicable international law, including international humanitarian law.”³⁵ Again there was reference to the destructive power of nuclear weapons being unable to be contained in either time or space.³⁶ Here one can

³⁰ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8).*

³¹ *Id.* ¶ 35.

³² *Id.* ¶ 105(2)(F).

³³ Jean-Marie Henckaerts and Louise Doswald-Beck, *Cross, Customary International Humanitarian Law Volume 1: Rules 244* (2005).

³⁴ Jakob Kellenberger, President, ICRC, *Statement Delivered to the Geneva Diplomatic Corps: Bringing the Era of Nuclear Weapons to an End* (Apr. 20, 2010).

³⁵ 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, New York, U.S., May 3-28, 2010, Final Document, § I.(A.)(v.), NPT/CONF.2010/50 (Vol. I) (June 18, 2010).

³⁶ *See* Kellenberger, *supra* note 34.

also cite the Geneva Convention, Protocol 1, Article 35(3) which prohibits means of warfare that cause widespread, long-term and severe damage to the environment.³⁷

The NPT Review Conference, held every five years, gathers delegates from the 189 signatory states, and in 2010 the Statement of Intent included, “the resurgence of international humanitarian law in the nuclear context presents an opportunity that must not be missed to demand that governments definitively rule out the use and possession of nuclear weapons.”³⁸

In 2011, eminent experts in international law and diplomacy gathered at a conference in Vancouver, Canada under the banner “Law’s Imperative for the Urgent Achievement of a Nuclear-Weapon-Free World.” The Vancouver Declaration begins with “nuclear weapons are incompatible with elementary considerations of humanity.”³⁹

Negotiating an international, universal legal ban on nuclear weapons, supported by credible verification is known as a Nuclear Weapons Convention.⁴⁰ This method of nuclear disarmament is now considered by most experts in the field to be the only viable means of arriving at the end goal; as step by step negotiations on separate issues have failed to advance the goal in any reasonable time frame.⁴¹ An equivalent to the Nuclear Weapons Convention is effectively achieved by a framework of mutually reinforcing agreements. This arrangement has been

³⁷ Protocols Additional to the Geneva Convention of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, art. 35, June 8, 1977, 1112 U.N.T.S. 1979.

³⁸ John Burroughs, Humanitarian Law or Nuclear Weapons: Chose One, NUCLEAR ABOLITION FORUM, http://www.abolitionforum.org/site/wpcontent/uploads/2011/08/IHL-or-nuclearweapons_choose-one.pdf (last visited Sept. 20, 2013).

³⁹ Vancouver Declaration, Law’s Imperative for the Urgent Achievement of a Nuclear-Weapon-Free World, (Feb. 11, 2011) <http://lcnp.org/wcourt/Feb2011VancouverConference/vancouverdeclaration.pdf>.

⁴⁰ See generally Preparatory Committee for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Working Paper Submitted by Costa Rica, NPT/CONF.2010/PC.I/WP.17 (proposing a model non-proliferation treaty).

⁴¹ Cesar Jaramillo, *There’s a New Sense of Urgency for a Nuclear Weapons Ban*, PROJECT PLOUGHSHARES (May 17, 2013), <http://ploughshares.ca/2013/05/theres-a-new-sense-of-urgency-for-a-nuclear-weapons-ban/>.

promoted by United Nations Secretary-General Ban Ki-moon's *Five Point Proposal on Nuclear Disarmament* (2008).⁴²

An Arctic Nuclear-Weapon-Free Zone creates a regional Nuclear Weapons Convention.

III THE NUCLEAR-WEAPON-FREE ZONE (NWFZ)

Article VII of the Nuclear Non-Proliferation Treaty and numerous UN resolutions affirm the right of states to establish NWFZs in their territories. Encouragement to establish additional NWFZs is part of Secretary General Ban Ki-moon's Five Point Proposal.⁴³

In 1975, the United Nations General Assembly⁴⁴ set forth principles for Nuclear-Weapon-Free Zones:

- Non-possession
- Non-deployment
- Non-manufacture, including delivery systems
- Non-use of nuclear weapons
- The decision to create a NWFZ should be initiated within the region and arrived at freely by the states that make up the region
- A NWFZ Treaty must be verifiable and of unlimited duration
- Nuclear weapons states (NWS) must subsequently ratify protocols in their own legislatures, and offer negative security assurances to the region.

Virtually all the southern hemisphere and parts of the northern hemisphere are already in NWFZs, each with individual

⁴² Ban Ki-Moon, Sec'y Gen., U.N., Address to the East-West Institute: The United Nations and Security in a Nuclear Weapon Free World (Oct. 24, 2008), available at <http://www.un.org/disarmament/WMD/Nuclear/sg5point.shtml>.

⁴³ *Id.*

⁴⁴ G.A. Res. 3472 (XXX), at 24, U.N. Doc. A/RES/3472(XXX) (Dec. 11, 1975).

characteristics suited to the region.⁴⁵ The history and status of each is seen in Table 1.

TABLE 1 – Nuclear Weapon Free Zones⁴⁶

Name	Treaty Date	Ratification by Zonal States	Protocols Ratified by NWS	Ratification or consultations in progress with NWS
Antarctica	1959	1961	All	
Tlatelolco	1967	1969	All	
Rarotonga	1985	1986		YES
Bangkok	1995	1997		YES
Pelindaba	1996	2009		YES
Semipalatinsk	2006	2009		YES
Mongolia	2000	2000	All	

Also, there are a few other areas that are officially demilitarized by treaty and are therefore free of nuclear weapons. For example, the Spitzbergen archipelago, including the island of Svalbard, part Norway, is demilitarized.⁴⁷

⁴⁵ *Id.* See also U.N. Off. Disarmament Aff. *Guidelines and Principles for Nuclear Weapon Free Zones* (Apr. 3. 1999), <http://www.un.org/disarmament/WMD/Nuclear/NWFZ2.shtml#text> (stating “[n]uclear-weapon-free zones should be established on the basis of arrangements freely arrived at among the States of the region concerned.”).

⁴⁶ See Jan Prawitz, Research Assoc. of the Swed. Inst. of Int’l Affairs, Presentation at the Conference on the Arctic Nuclear-Weapon-Free Zone: A Nuclear-Weapon-Free Arctic –Arms Control ‘on the Rocks’ (Aug. 10-11, 2009), in DIIS REPORT 2010:03 25, 25 (Cindy Vestergaard, ed. 2010), available at http://subweb.diis.dk/graphics/Publications/Reports2010/RP2010-03_arctic_nuclear_weapon_free_zone_web.pdf (reviewing all NWFZs including a potential Arctic NWFZ).

⁴⁷ See Treaty Concerning the Archipelago of Spitzbergen, Feb. 9, 1920 art. 9, 2 L.N.T.S. 8, 14. The Treaty was signed in 1920 and entered into force in 1925. Lotta Numminen, *A History and Functioning of the Spitsbergen Treaty*, in THE SPITSBERGEN TREATY: MULTILATERAL GOVERNANCE IN THE ARCTIC 7, 8 (Diana Wallis & Stuart Arnold eds. 2011), available at <http://www.dianawallismep.org.uk/en/document/spitsbergen-treaty->

On May 2, 2011, President Obama submitted the protocols of the treaties of Pelindaba, and Rarotonga, to the United States Senate for ratification.⁴⁸ John Bravaco, U.S. Representative, United Nations Disarmament Commission, stated to the 2012 Session (April 4) “Mr. Chairman, Over the past several years, the United States has reinvigorated its efforts to support nuclear-weapon-free zone treaties as an important part of the multilateral arms control and non-proliferation architecture.”⁴⁹

IV ARCTIC GOVERNANCE

International and intra-national collaboration is ongoing on many fronts. This includes regulations in support of economic development, environmental protection, settlement of Inuit and Aboriginal land claims, devolution of powers of governance (in Canada), science research, and the Arctic Council. Agreements and treaties that are regional, national, pan-Arctic, bilateral, multilateral and international exist⁵⁰ and are being formed.⁵¹ Arguably the most important is the United Nations Convention on the Law of the Sea (UNCLOS). Under international law,

booklet.pdf. Today, the treaty has some 40 parties. *Id.* at 9 & n.5. *See generally* G. ULFSTEIN, *THE SVALBARD TREATY: FROM TERRA NULLIS TO NORWEGIAN SOVEREIGNTY*, 1995 (providing legal analysis of Spitzbergen Treaty).

⁴⁸ Gaukhar Mukhatzhanova & Miles Pomper, *Obama Seeks Senate OK for Protocol to Two Nuclear-Weapon-Free Zone Treaties*, JAMES MARTIN CENT. FOR NONPROLIFERATION STUD. (May 6, 2011), http://cns.miis.edu/stories/110506_obama_nwz.htm.

⁴⁹ John A. Bravaco, U.S. Representative, U.N. Disarmament Comm’n, Statement by Mr. John A. Bravaco, U.S. Representative, United Nations Disarmament Commission 2012 Session (Apr. 4, 2012), *available at* <http://usun.state.gov/briefing/statements/187495.htm>.

⁵⁰ *See* BARENTS EURO-ARCTIC COUNCIL, *DECLARATION ON THE 20TH ANNIVERSARY OF THE BARENTS EURO-ARCTIC COOPERATION 1* (2013), *available at* http://www.barentsinfo.fi/beac/docs/Barents_Summit_Declaration_2013.pdf (“On 11 January 1993, ministers of foreign affairs or other representatives of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the Commission of the European Communities signed a declaration on cooperation in the Barents Euro-Arctic region . . .”).

⁵¹ *See, e.g.*, ARCTIC COUNCIL, *SENIOR ARCTIC OFFICIALS’ REPORT TO MINISTERS* 32-33, 39 (2013), *available at* <http://www.arctic-council.org/index.php/en/document-archive/category/425-main-documents-from-kiruna-ministerial-meeting>.

sovereignty claims and rights on continental shelves will be resolved, as summarized in Table 2.⁵² All circumpolar states are signatories,⁵³ but the United States has not yet ratified; UNCLOS is presently listed amongst “Treaties Pending” in the Senate.⁵⁴

TABLE 2 - Sovereign Rights under UNCLOS United Nations Convention on the Law of the Sea	
RIGHT	DEFINITION
Territorial sea	Not exceeding <u>12 nautical miles</u> from the baseline; complete sovereignty, including resources
Contiguous zone	Not extending beyond <u>24 nautical miles</u> from the baseline; regulatory rights relating to infringement in the territorial sea

⁵² United Nations Convention on the Law of the Sea, Dec. 10, 1982 arts. 2, 33, 1833 U.N.T.S. 397, 400, 409, *available at* http://www.un.org/depts/los/convention_agreements/texts/unclos/closindx.htm (last visited Oct. 29, 2013).

⁵³ DIV. FOR OCEAN AFF. OFF. OF THE LEGAL AFF., STATUS OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA, OF THE AGREEMENT RELATING TO THE IMPLEMENTATION PART XI OF THE CONVENTION AND OF THE AGREEMENT FOR THE IMPLEMENTATION OF THE PROVISIONS OF THE CONVENTION RELATING TO THE CONSERVATION AND MANAGEMENT OF STRADDLING FISH STOCKS AND HIGHLY MIGRATORY FISH STOCKS: TABLE RECAPITULATING THE STATUS OF THE CONVENTION AND OF THE RELATED AGREEMENTS, AS AT 18 SEPTEMBER 2013, *available at* http://www.un.org/depts/los/reference_files/status2010.pdf.

⁵⁴ *Treaties Pending in the Senate*, U.S. DEP’T ST., <http://www.state.gov/s/l/treaty/pending/> (last updated Apr. 23, 2013).

Exclusive economic zone [EEZ]	Not extending beyond <u>200 nautical miles</u> from the baseline; coastal State has sovereign rights for natural resources, living or non-living, as well as sea-bed and subsoil. Jurisdiction on structures, artificial islands, marine research, protection of marine environment. Right to regulate for prevention of marine pollution, & vessel source pollution
Continental shelf and its delineation	Natural prolongation of the landmass of the coastal state to the outer edge of the continental margin up to 200 nautical miles, or if it is less, coincides with the EEZ. The <u>limit is 350 nautical miles</u> , or 100 nautical miles from the 2500 metre isobath
Delineation of the continental shelf beyond 200 nautical miles	<u>Supporting scientific and technical</u> data is submitted to the Commission on the Limits of the Continental Shelf, which shall make recommendations to the coastal States
Exploration of the continental shelf; exploitation of its natural resources	Only with express consent of the coastal State

Some states have already acquired seafloor data, e.g. Russia,⁵⁵ and others are still in the process.⁵⁶ The UN

⁵⁵ Malte Humpert, *Russia Expected to Submit Arctic Claims to United Nations Within Months*, ARCTIC INST. (Aug. 16, 2011, 10:49 AM), <http://www.thearcticinstitute.org/2011/08/russia-expected-to-submit-arctic-claim.html>.

⁵⁶ Elizabeth Riddell-Dixon, *Meeting the Deadline: Canada's Arctic Submission on the Limits of the Continental Shelf*, 42 OCEAN DEV. & INT'L L. 368, 369, 371-75 (2011).

Commission on the Limits of the Continental Shelf (CLCS) will assess the claims and issue a ruling, but that could take up to a decade.⁵⁷ The CLCS has a backlog and growing workload, so additional resources are under consideration. Developments fostered under the Arctic Council are evidence of the intent to cooperate.

- Ilulissat Declaration, 2008– five coastal nations agreed to responsible management of the Arctic Ocean and to respect UNCLOS to resolve maritime boundary disputes (This group included the United States, even though it had not ratified UNCLOS).⁵⁸
- Search & Rescue Agreement, 2011 – eight circumpolar countries: Arctic has defined search & rescue areas, coordinated multilateral management, retaining legal responsibility of each nation for its own territory.⁵⁹
- Oil spill response, preparedness, and, in preparation- oil spill prevention.⁶⁰

However, the mandate of the Arctic Council does not include military security, and so it is unable to champion the start of negotiations for an Arctic NWFZ.⁶¹

Throughout the short and medium term future, new means of governance will be developed. If the Arctic NWFZ is accepted now as an essential goal, the accommodations achieved during negotiation of a treaty will be a global example of innovations in governance.

⁵⁷ *Id.* at 375-77.

⁵⁸ See generally Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, May 12, 2011, 13 T.I.A.S. No. 13-119 [hereinafter Arctic Search and Rescue Agreement].

⁵⁹ See *general id.*

⁶⁰ See Agreement on Marine Oil Pollution, *supra* note 10,

⁶¹ See Ottawa Declaration *supra* note 22, at 1388 n.1 (stating that “the Arctic Council should not deal with matters related to military security”).

V THE PATH TO AN ARCTIC NUCLEAR-WEAPON-FREE ZONE

Because of regional differences, each nuclear-weapon-free zone is unique within the terms of its treaty, but all adhere to the United Nations principles for NWFZs.⁶² There are several important factors affecting the proposed Arctic NWFZ. This would be the first NWFZ that encompasses only partial territory of sovereign nations.⁶³ The obvious challenge is that the region contains two nuclear weapons states – United States and the Russian Federation. Five states – United States, Canada, Denmark, Iceland and Norway – are in NATO, a military alliance that undertakes to provide a nuclear “umbrella.”⁶⁴ Finland, Sweden, and Russia are not NATO members.⁶⁵ The Arctic security policies of the non-nuclear weapon states (NNWS) have not properly addressed the presence of nuclear weapons in the region, although Denmark has made an enlightened move forward in its foreign policy statement of 2012

⁶² Second Conference of Nuclear-Weapon-Free Zones and Mongolia, Apr. 30, 2010, *Declaration and recommendations for the Second Conference of States Parties and Signatories of Treaties that Establish Nuclear-Weapon-Free Zones and Mongolia (30 April 2010), and the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, adopted by the Civil Society Forum for Nuclear Weapon Free Zones, held at United Nations, New York, on 29 April 2010*, U.N. Doc. NWFZM/CONF.2010/1, Annex 1 (May 5, 2010).

⁶³ Prawitz, *supra* note 46 (describing all NWFZs, each composed of a group of nation-states).

⁶⁴ See *What is NATO?* NATO.INT, <http://www.nato.int/nato-welcome/index.html> (last visited Oct. 29, 2013). The Acronym NATO stands for North Atlantic Treaty Organization. For information about NATO’s members and purposes see *id.*

⁶⁵ See *id.*

which says it will pursue formation of an Arctic NWFZ.⁶⁶ This section examines these issues and the influence they have on steps leading to removal of nuclear weapons from the Arctic region.

At the height of the Cold War, Both Russia and the United States had numerous patrols of the Arctic Ocean by submarines equipped with nuclear-tipped missiles.⁶⁷ However, these patrols have greatly declined, and appear to have little strategic importance beyond maintaining a sort of continuity. The U.S. Naval Intelligence says that the entire Russian fleet of nine ballistic missile submarines sailed on only five deterrent patrols in 2012.⁶⁸ However, two new nuclear-powered SSBN Borei class Russian submarines, are being built in 2013, and Borei class “Yuri Dolgoruky” was launched in January 2013.⁶⁹ The Yasen class nuclear-powered attack submarine, also under construction, is capable of being equipped with several missile types, not all with nuclear weapons.⁷⁰ Generally these expensive new submarines have encountered technical problems, and have not

⁶⁶ United Nations, Thematic Debate on Other Disarmament Measures, Non-Proliferation and Arms Control, Statement by Den. Ambassador, U.N. GAOR, 67th Sess., 7th mtg. at 12-13, U.N. Doc. A/C.1/67/PV.7 (Oct. 15, 2012), available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N12/547/28/PDF/N1254728.pdf>. (“In conclusion, Denmark supports the voluntary establishment of regional zones free of nuclear weapons and other weapons of mass destruction. We believe that we should explore how the establishment of such zones, including in the Arctic, could become an integral part of a comprehensive multilateral strategy to implement global nuclear disarmament and combat the proliferation of nuclear weapons.”). Likewise, a 2011 foreign policy statement provided by the Danish government states that “[i]n dialogue with Denmark’s partners, the government will pursue the policy of making the Arctic region a nuclear weapon-free zone.” *A Denmark That Stands Together*, STM.DK, http://stm.dk/multimedia/Regeringsgrundlag_uk_2011.pdf (last visited Oct. 29, 2013).

⁶⁷ GRIFFITHS ET AL., *supra* note 24, at 51.

⁶⁸ Thomas Nilsen, *Nuke Missile Subs Mostly at Port*, BARENTS OBSERVER (May 6, 2013), <http://barentsobserver.com/en/security/2013/05/nuke-missile-subs-mostly-port-06-05> (discussing Hans M. Kristiansen’s report).

⁶⁹ Charles Digges, *Launch of new Russia sub to put more nuclear missiles at sea*, BELLONA (Jan. 14, 2013), http://www.bellona.org/articles/articles_2012/launch_borey.

⁷⁰ Charles Digges, *Skyrocketing costs of launching ‘new’ nuclear submarine flex muscles Russia does not have*, BELLONA (Aug. 14, 2012), http://www.bellona.org/articles/articles_2012/severdinsk_delay.

met their original schedules.⁷¹ Some were intended for operation with the Pacific fleet, but facilities are not yet available, so they remain at Arctic ports.⁷² On the United States side of the submarine capabilities for the Arctic, the Virginia Class submarine, a SSBN type, continues to be ready, refurbished as required, and used in the Arctic.⁷³ The U.S. submarines are based on both the West and East coasts of the country.⁷⁴

The United States has deployed its developing ballistic missile system at Fort Greely in Alaska (geographically below the Arctic Circle, 60 degrees latitude), but there continues to be many doubts whether it actually will ever be a viable military tool.⁷⁵ Both Russia and the U.S. have nuclear bombers, and training missions of Russian aircraft regularly run in international air space near the Arctic.⁷⁶ Are these operations Cold War relics, or is there a true strategic purpose involved? As expressed by Ernie Regehr in May 2013, “the real point is that Russian aircraft are no longer enemy aircraft.”⁷⁷

There is room for change in the current positions of these two nuclear weapon states, because of today’s reduced Arctic patrols of nuclear-armed delivery systems in the sea and in the air. Also relevant is that the United States, Russia, and also China are known to be putting emphasis on operations in the North Pacific and are increasing naval resources there.⁷⁸

⁷¹ *Id.*

⁷² Digges, *supra* note 69.

⁷³ REGEHR, *supra* note 23, at 29.

⁷⁴ *Id.* at 18 n.103.

⁷⁵ See *History of Fort Greely*, Greely.Army.Mil, <http://www.greely.army.mil/about/history.aspx> (last accessed Oct. 29, 2013); Elliot Blair Smith & Gopal Ratnam, *\$35B Missile Defense Misses Bullet With Bullet*, BLOOMBERG NEWS (Aug. 3, 2011), <http://www.bloomberg.com/news/2011-08-03/missile-defense-costing-35-billion-misses-bullets-with-bullets.html>.

⁷⁶ See ERNIE REGEHR, FIGHTER AIRCRAFT AND ARCTIC SOVEREIGNTY 2-5 (2013), available at <http://www.thesimonsfoundation.ca/sites/all/files/Fighter%20aircraft%20and%20Arctic%20sovereignty%20%20DAS%2C%20May%2014%202013.pdf>.

⁷⁷ *Id.* at 5.

⁷⁸ Leon Panetta, Sec’y of Def., Address at the U.S. Naval Acad. (May 29, 2012), <http://www.defense.gov/speeches/speech.aspx?speechid=1679> (stating “[t]hat reality is inescapable for our country and for our military, which has

Circumpolar nations repeatedly state their intent to cooperate and oppose militarization⁷⁹. The presence of nuclear weapons is totally at odds with these policies. A recent report for Congress, “Changes in the Arctic: Background the Issues for Congress,”⁸⁰ makes several relevant observations, quoting from DOD:

- *May 2011- DOD report to U.S. Congress: “a regional *{Arctic}* policy that reflects the relatively low level of threat in a region bounded by nation states that have . . . publicly committed to working within a common framework of international law and diplomatic engagement.”⁸¹
- [quoting from DOD Quadrennial Review, 2010] “we will seek out opportunities to work with Moscow on emerging issues, such as the future of the Arctic.”⁸²
- *Russian Foreign Minister 2010: “any militarization [of the Arctic] is out of the question.”⁸³

NATO is not formally in the Arctic, and even the well-known Cold Response, the name for multilateral naval games in the Arctic, billed as a crisis response exercise, is not under the auspices of NATO, but is sponsored by the government of Norway. However, it has participation of all circumpolar members of NATO.⁸⁴ A number of NATO members have

already begun broadening and deepening our engagement throughout the Asia-Pacific.”).

⁷⁹ O’Dwyer, *supra* note 25.

⁸⁰ O’ROURKE, *supra* note 26, at 56, 59-60.

⁸¹ *Id.* at 60.

⁸² *Id.* at 59.

⁸³ *Id.* at 56.

⁸⁴ See generally Mikhail Aristov, *NATO holds naval games in the Arctic*, THE VOICE OF RUSSIA (Mar. 12, 2012, 2:50 PM), http://voiceofrussia.com/2012_03_12/68216782/ (explaining that all the circumpolar members of NATO are participating in naval games).

interests in the Arctic and therefore, NATO has considered expanding its role to include Arctic territory.⁸⁵ Canada continues to oppose any NATO presence in the Arctic, and Russia considers its core interests to be threatened by the presence of NATO.⁸⁶ In 2010 and 2013, NATO Secretary-General Anders Fogh Rasmussen assured Russia that it does not intend to establish in the Arctic.⁸⁷ Membership in NATO is not in itself a hindrance to being part of a NWFZ. Australia, for example, is part of a nuclear alliance and also is a member of the Rarotonga NWFZ.⁸⁸ The specifics of special accommodations under this treaty are given in a comprehensive analysis of “Political Aspects of the Nuclear Weapon Free Zone in the Arctic Region” by Jayantha Dhanapala, a former UN Under-Secretary-General for Disarmament Affairs.⁸⁹ While it would be highly preferable

⁸⁵ See generally NATO Sub-Committee on Transatlantic Defence and Security Co-Operation, *Visit to Denmark, Greenland and Iceland*, 201 D.S.C.T.C. 10 E (Sept. 2010), available at <http://www.nato-pa.int/default.asp?SHORTCUT=2209> (detailing the reasoning behind NATO’s consideration to expand to the Arctic).

⁸⁶ See generally Andrew Chisholm, *NATO in the North? The Debate Over an Alliance Presence in the Arctic*, ATLANTIC COUNCIL OF CAN. (Jun. 3, 2013), <http://atlantic-council.ca/portfolio/nato-in-the-north-the-debate-over-an-alliance-presence-in-the-arctic/> (describing the nature and extent of NATO military presence in the Arctic); See generally Igor Alexeev, *Russia’s Arctic, NATO And Norway: A Post-Kirkenes Political Landscape--Analysis*, EURASIA REV. (Jun. 20, 2013), <http://www.eurasiareview.com/20062013-russias-arctic-nato-and-norway-a-post-kirkenes-political-landscape-analysis/> (explaining that Russia feels its interests are threatened by NATO presence in the Arctic).

⁸⁷ *Id.* See also Chisholm, *supra* note 86.

⁸⁸ Austl. Dep’t of Foreign Affairs and Trade, *Australia - US alliance*, http://www.dfat.gov.au/geo/us/australia_us_alliance.html. See also Mukhatzhanova & Pomper, *supra* note 48; Table 1.

⁸⁹ Jayantha Dhanapala VIth Russian Congress of Political Science in Moscow from 22-24 November, 2012; session on “*International Co-operation in the Arctic region: Security and Development.*” An excerpt from the text - 1985 Treaty of Rarotonga, Article 5 (2) of that says –

Each Party in the exercise of its sovereign rights remains free to decide for itself whether to allow visits by foreign ships and aircraft to its ports and airfields, transit of its airspace by foreign aircraft, and navigation by foreign ships in its territorial sea or archipelagic waters in a manner not covered by the rights of innocent passage, archipelagic sea lane passage or transit passage of straits.” It was this provision that enables Australia to allow US nuclear weapon

for NATO to adjust its nuclear doctrine to accommodate its non-nuclear-weapon-state (NNWS) circumpolar members that wish to be in an Arctic NWFZ, there is nothing in the NATO charter or agreements that precludes any country from taking such a step unilaterally.⁹⁰ It may be useful to form a cooperative security organization of all Arctic states [i.e. the Arctic Council members], as proposed in January 2012 at the Arctic Coast Guard Forum.⁹¹ This would be a confidence building measure that has potential to be favourable to formation of an Arctic NWFZ.

The Arctic NNWS have already fulfilled important criteria for inclusion in a NWFZ, so that they could, as a group, enter negotiations for a NWFZ treaty.⁹² Denmark⁹³ is the only

armed ships to call at its ports.

Of note – New Zealand, in exercise of its sovereign rights, declined any access to such foreign vessels or aircraft.

⁹⁰ Ted Whiteside, NATO Deputy Assistant Secretary General for Public Diplomacy, Remarks at the Nuclear Security meeting at Dubrovnik, Croatia sponsored by the World Academy of Arts & Science, European Security Network and NATO (Nov. 14-17, 2012).

⁹¹ See generally HEATHER A. CONLEY, CTR. FOR STRATEGIC & INT'L STUDIES, A NEW SECURITY ARCHITECTURE FOR THE ARCTIC: AN AMERICAN PERSPECTIVE (2012) (describing Arctic Coast Guard Forum).

⁹² Prawitz, *supra* note 46, at 36-37 (describing the requirements for NWFZ and how they are met by arctic NNWS).

⁹³ See generally DENMARK, GREENLAND & THE FAROE ISLANDS: KINGDOM OF DENMARK: STRATEGY FOR THE ARCTIC 2011-2020 (2011), available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCwQFjAA&url=http%3A%2F%2Fec.europa.eu%2Fenterprize%2Fpolicies%2Fraw-materials%2Ffiles%2Fdocs%2Fmss-denmark_en.pdf&ei=ZTV0UtfIN6eqyAHn5oBA&usg=AFQjCNEF_9MlhVfH3TA1jTgQyH37T313Xw&sig2=2g_PB_25GBgYOAI9ynFayA&bvm=bv.55819444,d.aWc&cad=rja.D (explaining Denmark's policies for the Arctic region.) Denmark's Social Democrat government, elected in 2011, indicated it would engage in consultations with other circumpolar nations on the topic, and the intent of establishing an Arctic NWFZ. See PRIME MINISTER OF DENMARK, A DENMARK THAT STANDS TOGETHER (describing Danish policy that the Arctic should be a nuclear-weapon-free-zone in the "International Peace and Security" section), available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCwQFjAA&url=http%3A%2F%2Fmultimedia%2FRegeringsgrundlag_uk_2011.pdf&ei=izz0Uqv6CaOEyghOIAE&usg=AFQjCNGRS3--

circumpolar state to include Arctic NWFZ in its foreign policy statement for the region. *A DENMARK THAT STANDS TOGETHER* noted that “the need for a united multilateral strategy to combat the proliferation of nuclear weapons . . . in dialogue with Denmark’s partners, the Government will pursue the proposal of making the Arctic region a nuclear weapon-free zone.”⁹⁴ The Non-Proliferation and Disarmament Initiative (NPDI), a Ministerial group that includes Canada, a circumpolar nation, supports NWFZs.⁹⁵ In 2011, it stated that “[w]e firmly support . . . the establishment of nuclear weapon-free zones . . . taking into consideration that such zones are not an end in themselves but rather a means to reinforce the global non-proliferation regime and contribute to nuclear disarmament.”⁹⁶

In the 1980s, the indigenous populations of the Arctic already saw the deleterious effects of nuclear material in the North, and in 1983, the Inuit Circumpolar Conference issued their Resolution on a Nuclear Free Zone in the Arctic. The Resolution is still in force,⁹⁷ it would be valuable to have this document revised and re-issued.

Security developments in the Arctic are of great importance to the Icelandic Government. As described in a speech to a symposium at Ottawa University in October 2012 by the Ambassador of Iceland to Canada, H. E. Thordur Oskarrson, the Foreign Affairs Department of the newly elected Government of Iceland issued a Manifesto (May 2009) indicating intent to cooperate with other Arctic nations, saying “Work will continue on formulating a security policy for Iceland based on the country's own risk assessment in close co-operation with

ahHYFwJ697jllfkQvVsU_g&sig2=KdmdOpvKdUah8gDpsEA9-g&bv=55819444.d.aWc&cad=rja (last visited Nov. 29, 2011).

⁹⁴ *Id.* See also Digges, *supra* note 70.

⁹⁵ Non-Proliferation and Disarmament Initiative, The Hague Statement (Apr. 9, 2013), available at <http://www.rijksoverheid.nl/regering/documenten-en-publicaties/convenanten/2013/04/09/non-proliferation-and-disarmament-initiative.html>.

⁹⁶ Non-Proliferation and Disarmament Initiative, Statement of the Third Ministerial Meeting of the Non-Proliferation and Disarmament Initiative (Sept. 21, 2011), available at http://www.mofa.go.jp/policy/un/disarmament/arms/npdi_mstate110921.pdf.

⁹⁷ Interview with Mary Simon, founding President, Inuit Circumpolar Council, in Ottawa, Ont., Can. (Sept. 22, 2011) (on file with author).

neighbouring nations and other allied states.”⁹⁸ In reference to nuclear weapons, the Manifesto says “Iceland will be declared a nuclear weapons free zone and the Icelandic government will support nuclear disarmament internationally.”⁹⁹ A draft law on a nuclear free Iceland was submitted to its parliament, the Althingi, and the status as of 2012 is that it was sent to the government for modification and further decision.¹⁰⁰

VI GEOGRAPHIC BOUNDARIES AND THE PATH TO AN ARCTIC NWFZ

It is often assumed that the boundary of choice is the Arctic Circle, at Latitude 60 deg. N. Such a nominal boundary is of particular interest because it would be the first NWFZ that included only partial territories of its nation-state signatories.¹⁰¹ Another potential boundary is that defined by the Search and Rescue Agreement of 2011 (several areas are south of the Arctic Circle).¹⁰² An advantage of this boundary is that this territory is already defined in detail.¹⁰³ Efficiencies would accrue because there would be no need to define new boundaries for treaty purposes, and the international community will become accustomed to these boundaries as they respond to search and

⁹⁸ Thordur Oskarrsson, Ambassador to Can., Embassy of Ice., Address at the Ottawa University Symposium: Policy Imperatives for an Arctic Nuclear-Weapon-Free Zone (Oct. 26-27, 2012), in CANADIAN PUGWASH, POLICY IMPERATIVES FOR AN ARCTIC NUCLEAR-WEAPON-FREE ZONE 14, 18 (2013), available at <http://www.pugwashgroup.ca/images/documents/2013/POLICY%20IMPERATIVES%20for%20an%20ARCTIC%20NWFZ%20May%206%202013.pdf>.

⁹⁹ *Id.*

¹⁰⁰ *Id.* In a paper submitted to the Polar Journal, a further reference is provided by H. Haftendorn, FU Berlin, as follows: Frumvarptil laga um friðlýsingu Íslands fyrir kjarnorkuvopnum og bann við umferð kjarnorkuknúinna farar-tækja, 139. löggfarþing 2010-2011, þskj. 18 – 18. mál, www.althingi.is/altext/139/s/pdf/0018.pdf.

¹⁰¹ Bravaco, *supra* note 49. Each Nuclear-Weapon-Free Zone Treaty covers the entire nation-state in the participating region. *Id.*

¹⁰² See generally Arctic Search and Rescue Agreement, *supra* note 58, Annex, T.I.A.S. No. 13-0119 (providing the exact definition of the Search and Rescue regions and boundaries).

¹⁰³ *Id.*

rescue operations. Within either territory, the United States has no stationed nuclear weapons or missiles, whereas Russia's submarine bases are stationed on the Kola Peninsula and along the coasts of the Barents and White Seas.¹⁰⁴ There have been discussions around a nuclear-weapon-free Arctic, or portions of the Arctic, for some years, e.g. for a Nordic NWFZ. At this time in history the most likely successful path is through the circumpolar NNWS. Discussions could commence, possibly initiated by Denmark, and a consensus could be reached to satisfy the geography and politics of the participating states. When a consensus is obtained, as postulated above, the circumpolar NNWS would act together to sign and ratify a treaty involving their own territories, and encompassing one or more of:

- Land area delineated by the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic¹⁰⁵
- Surface and under-sea territorial waters, and the contiguous zone, per UNCLOS, as well as any limitations available for each country's Exclusive Economic Zone¹⁰⁶
- Air space
- To accommodate submarines equipped with nuclear weapons, the UNCLOS "rights of innocent passage" would apply for submarines, as required¹⁰⁷

To accommodate the hoped-for entry of the NWS, the treaty could be open for later entry by other states, as was the case for

¹⁰⁴ GRIFFITHS, *supra* note 24, at 34.

¹⁰⁵ Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic *supra* note 58, at 8.

¹⁰⁶ Bravaco, *supra* note 49; *see also* Table 2.

¹⁰⁷ United Nations Convention on the Law of the Sea, *supra* note 52, arts. 17-19, at 404-05.

the Tlatelolco Treaty. When the NNWS have agreed on their limited geography NWFZ treaty, they would be able to continue their efforts within the United Nations First Committee, which meets annually for several weeks.¹⁰⁸ In a situation where significant support had been received from participants in the First Committee, the following step would probably be to introduce a resolution to the General Assembly, backed by the NNWS and others, for an Arctic NWFZ. This is the path that has strong potential to produce a positive result.

When the NNWS are united in their intent to pursue a treaty, they should approach the United States and Russia. A strong verification system will be required; during this period, there should be parallel work on verification.¹⁰⁹ The U.S. and Russia would experience regional and global pressure, and the response could start with a limited disengagement. For example, they could begin with elimination of patrolling by SSBN submarines in the Arctic. A unilateral move in partial compliance, in anticipation of a potential response from the other NWS, would greatly advance the cause.

It might seem overly optimistic to anticipate that these NWS would later join the Arctic NWFZ. However, concurrent developments in global strategy for security might lower the barrier to Arctic NWFZ, as follows:

- Budgetary limitations on military expenditure¹¹⁰

¹⁰⁸ *Disarmament and International Security, First Committee*, U.N. GEN. ASSEMBLY, <http://www.un.org/en/ga/first/index.shtml> (last visited Oct. 30, 2013), (“The First Committee deals with disarmament, global challenges and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime”). See Documents of the 67th Session, U.N. GEN. ASSEMBLY, <http://www.un.org/en/ga/first/67/documentation.shtml> (last visited Oct. 31, 2013), for a list of documents of the Committee’s 67th session.

¹⁰⁹ See, e.g., BRIAN ANDERSON ET AL., VERIFICATION OF NUCLEAR WEAPON DISMANTLEMENT, PEER REVIEW OF THE UK MOD PROGRAMME (British Pugwash Group 2012) available at <http://britishpugwash.org/documents/BPG%20Verification%20Report.pdf>. (carried out in 2011 at the request of the Head of Strategic Technologies at the UK Ministry of Defense (MoD), additionally, there is a UK-Norwegian bilateral program in this area).

¹¹⁰ See Steve Andreasen, *The nuclear bomb we don't need: The American B61 is a massively expensive investment that provides no real military*

- Challenges in the Asia-Pacific area, which would see a strong presence of nuclear-weapon submarines from U.S.,¹¹¹ Russia, China, and possibly India.¹¹² As a result, availability of submarines for patrol in the Arctic would decrease.
- Ongoing negotiations for reduction of stockpiles of NW, beyond the commitments of the New Start Treaty: President Obama, in his 2013 State of the Union Address said “we will engage Russia to seek further reductions in our nuclear arsenals . . . because our ability to influence others depends on our willingness to lead.” This is not just rhetoric, but is a necessity to lay the foundation for progress with an existing major policy, which is to prevent nuclear proliferation.
- Environmental risk of an accident resulting in high-level radioactive waste: (However, an Arctic NWFZ would not cause removal of nuclear-powered submarines.) A cleanup plan is needed for nuclear waste in the sea and on land, particularly in Russia, in the Kara Sea.¹¹³

capability and no real deterrence in today's Europe, L.A. TIMES (June 6, 2013), <http://www.latimes.com/news/opinion/commentary/la-oe-andreasen-nuclear-bomb-20130606,0,4306971.story>; see Kingston Reif, *It's smart to scale back nuclear weapons spending*, BULL. ATOMIC SCIENTISTS (May 21, 2013), <http://thebulletin.org/its-smart-scale-back-nuclear-weapons-spending>.

¹¹¹ See generally Pentagon, *US should enhance Asia-Pacific military role*, RT.COM (May 30, 2012), <http://rt.com/news/us-military-pacific-panetta-570/> (reporting on a speech by Defense Secretary Panetta at the U.S. Naval Academy).

¹¹² See generally Rick Rozoff, *US Threatens China: The Pentagon Prepares Confrontation in Asia-Pacific*, THE 4TH MEDIA (Jun. 4, 2012), <http://www.4thmedia.org/2012/06/04/america-threatens-china-pentagon-prepares-for-confrontation-in-the-asia-pacific/> (explaining the threat felt by Asia-Pacific nations after a speech by Defense Secretary Panetta on U.S. military movements in the region).

¹¹³ Jayantha Dhanapala, President, Conferences on Science and World Affairs, Moderator at the VI Russian Congress of Political Science: Russia in

- World opinion favors abolition of nuclear weapons.¹¹⁴

VII. PROPOSAL FOR AN ARCTIC NUCLEAR-WEAPON-FREE ZONE

To date, the proposal for an Arctic NWFZ has received interest and support in U.N. circles and through papers and conferences sponsored by NGOs,¹¹⁵ but there is little or no attention to it in official policies of the circumpolar nations. The eighteen recommendations from the report “Policy Imperatives for an Arctic Nuclear-Weapon-Free Zone,”¹¹⁶ are pragmatic

the Global World: Institutions and Strategies of Political Interactions (Nov. 22 2012) (citing reports from Russia to the Norwegian Radiation Safety Authority (NRPA)).

¹¹⁴ Espen Barth Eide, Nor. Minister of Foreign Affairs, CHAIR’S SUMMARY OF HUMANITARIAN IMPACT OF NUCLEAR WEAPONS AT THE INTERNATIONAL CONFERENCE ON THE HUMANITARIAN IMPACT OF NUCLEAR WEAPONS (Mar. 5, 2013), available at http://www.regjeringen.no/en/dep/ud/whats-new/Speeches-and-articles/e_speeches/2013/nuclear_summary.html?id=716343 (“Delegations representing 127 states, the United Nations, the International Committee of the Red Cross, the Red Cross and Red Crescent movement and civil society participated in the conference. It is the chair’s view that this broad participation reflects the increasing global concern regarding the effects of nuclear weapons detonations, as well as the recognition that this is an issue of fundamental significance to us all.”); see *2007 Global Public Opinion Poll on Attitudes Towards Nuclear Weapons*, THE SIMONS FOUND., <http://www.thesimonsfoundation.ca/projects/2007-global-public-opinion-poll-attitudes-towards-nuclear-weapons> (last visited Oct. 31, 2013) (explaining that many Arctic countries favor the abolition of nuclear weapons). See generally SOKA GAKKAI INTERNATIONAL, SURVEY ON YOUTH ATTITUDES TOWARD NUCLEAR WEAPONS AND THEIR HUMANITARIAN CONSEQUENCES (2013), available at http://www.peoplesdecade.org/pdf/npt2013/npt2013_01_text.pdf.

¹¹⁵ See, e.g., Adele Buckley, *An Arctic Nuclear Weapon Free Zone Needed Now*, INT’L NETWORK OF ENGINEERS AND SCIENTISTS FOR GLOBAL RESPONSIBILITY (Mar. 28, 2012), <http://www.inesglobal.com/arctic.phtml> (describing a meeting of Danish parliamentarians and representatives from the embassies of the non-nuclear circumpolar countries).

¹¹⁶ See generally CANADIAN PUGWASH GROUP, POLICY IMPERATIVES FOR AN ARCTIC NUCLEAR-WEAPON-FREE-ZONE (May 2013), available at <http://www.pugwashgroup.ca/images/documents/2013/POLICY%20IMPERATIVES%20for%20an%20ARCTIC%20NWFZ%20May%206%202013.pdf> (proposing and describing pragmatic ways to move forward with the proposed Nuclear-Weapon-Free-Zone).

ways to move forward with the proposed NWFZ. For example, a draft framework of an Arctic NWFZ Treaty would be useful. Engaging parliamentarians, nationally and at an international level is important, and the recommendations suggest contact with the World Conference of Parliamentarians of the Arctic Region and the NATO Parliamentary Assembly.

On balance, the most promising tactic is for a coalition of all the Arctic NNWS to form a nuclear-weapon-free zone. Therefore, the way to begin is to use all available avenues to influence the Arctic foreign policy of each individual state so that the commitment to negotiate is active in each of the states in the region. Establishing an Arctic region free of nuclear weapons, will be a long process. However, signing a treaty for a formal Zone could be a tipping point that could lead to a nuclear-weapon-free world. The future of the Arctic is being set in place now; the policy window is open.