

ARCTIC SECURITY IN AN AGE OF CLIMATE CHANGE

Edited by James Kraska



CAMBRIDGE

Arctic Security in an Age of Climate Change

Edited by

JAMES KRASKA

U.S. Naval War College

and

Foreign Policy Research Institute



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781107006607

© Cambridge University Press 2011

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2011

A catalogue record for this publication is available from the British Library

Library of Congress Cataloguing in Publication data

Arctic security in an age of climate change / [edited by] James Kraska.
p. cm.

Includes bibliographical references and index.

ISBN 978-1-107-00660-7 (hardback)

1. Arctic regions – Military policy. 2. Security, International – Arctic regions.

3. Arctic regions – Strategic aspects. I. Kraska, James.

UA880.A76 2011

355'.0335113–dc22

2011001952

ISBN 978-1-107-00660-7 Hardback

ISBN 978-1-107-67367-0 Paperback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

The views presented are those of the contributors and do not reflect the official policy or position of their institutions or governments.

ARCTIC SECURITY IN AN AGE OF CLIMATE CHANGE

This is the first book to examine Arctic defense policy and military security from the perspective of all eight Arctic states. In light of climate change and melting ice in the Arctic Ocean, Canada, Russia, Denmark (Greenland), Norway, and the United States, as well as Iceland, Sweden, and Finland, are grappling with an emerging Arctic security paradigm. This volume brings together the world's most seasoned Arctic political-military experts from Europe and North America to analyze how Arctic nations are adapting their security postures to accommodate increased shipping, expanding naval presence, and energy and mineral development in the polar region. The book analyzes the ascent of Russia as the first "Arctic superpower," the growing importance of polar security for NATO and the Nordic states, and the increasing role of Canada and the United States in the region.

Dr. James Kraska serves as the Howard S. Levie Chair of Operational Law at the U.S. Naval War College, where he also teaches on the faculty of the International Law Department. Kraska is a commander and judge advocate in the U.S. Navy. He has served as legal adviser to joint and naval task force commanders in the Asia-Pacific and has completed four Pentagon major staff assignments. He was the principal military contributor to the president's U.S. Arctic Region Policy, and he coordinated Arctic issues and law of the sea for the armed forces at the National Security Council and International Maritime Organization. Author of *Maritime Power and the Law of the Sea* (2011), Kraska also holds appointments as Senior Fellow at the Foreign Policy Research Institute in Philadelphia and as Guest Investigator at the Marine Policy Center, Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. In 2010, he was selected for the Alfred Thayer Mahan Award for Literary Achievement by the Navy League of the United States.

For Kim, Olivia, and Caroline

Contributor Biographies

Caitlyn L. Antrim

Rule of Law Committee for the Oceans

Caitlyn L. Antrim is the executive director of the Rule of Law Committee for the Oceans (<http://www.oceanlaw.org>) and author of the widely distributed newsletter *Ocean Law Daily*, which reaches more than three hundred people each day. Antrim is a leading expert on the U.S. experience with the UN Convention on the Law of the Sea, having served as a deputy U.S. representative to the third UN Conference on the Law of the Sea, a consultant on law-of-the-sea matters to the United Nations and the International Seabed Authority, and a member of the board of directors of the Council on Ocean Law. She has worked for U.S. acceptance of the treaty for nearly three decades and has a particular interest in the deep-seabed mining regime and Arctic policy. She holds the professional degree of environmental engineer and an S.B. in mechanical engineering, both from Massachusetts Institute of Technology. Following her undergraduate studies she was designated a Distinguished Naval Graduate and commissioned in the U.S. Navy. Her articles have appeared in *World Politics Review*, *Naval War College Review*, *New York Times*, and other publications. An earlier version of her chapter appeared as the lead article for *Naval War College Review* (Summer 2010) under the title “The Next Geographical Pivot: The Russian Arctic in the Twenty-First Century.”

Lawson W. Brigham

University of Alaska Fairbanks

Dr. Lawson W. Brigham is distinguished professor of geography and Arctic policy at the University of Alaska Fairbanks and a senior Fellow at the Institute of the North in Anchorage. During 2005–09 he was chair of the Arctic Council’s Arctic Marine Shipping Assessment and vice chair of the Council’s working group on Protection of the Arctic Marine Environment (PAME). Brigham was also a contributing author to the Council’s Arctic Climate Impact Assessment. A career U.S. Coast Guard

officer (1970–95), he was commanding officer of four ships including the polar icebreaker *Polar Sea* on voyages to the Arctic and Antarctic, and also chief of the Coast Guard's Strategic Planning Staff in Washington, D.C. Brigham has been a marine policy Fellow at Woods Hole Oceanographic Institution, a faculty member of the U.S. Coast Guard Academy and Naval Postgraduate School, and deputy director of the U.S. Arctic Research Commission. He received his Ph.D. from Cambridge University, and his research interests for more than three decades have included the Russian maritime Arctic, ice navigation, remote sensing of sea ice, and polar geopolitics. Captain Brigham is a 2008 signer of the American Geographical Society's Fliers and Explorers Globe, which has been signed by 75 prominent explorers. This was in recognition of the 1994 voyages of *Polar Sea*, when it became the first ship in history to reach the ends of the global ocean.

Geir Flikke

**Norwegian Institute of International Affairs and High North Center,
Bodø, Norway**

Dr. Geir Flikke is a senior research Fellow at the Norwegian Institute of International Affairs (NUPI), where he has been affiliated with the Center for Russian Studies and currently with the Department of International Politics. He attained his doctoral degree in 2006 at the University of Oslo, with his dissertation "The Failure of a Movement: The Rise and Fall of Democratic Russia (1989–92)," on the conflict between social mobilization and organization in the Russian democracy movement. From 2006 to 2010, he was assistant director at NUPI and, since 2009, Professor II at the High North Center in Bodø. He was also a Fellow with the U.S. National Security Institute at the University of Delaware in 2010. Flikke speaks Russian fluently and has taught Russian history at the University of Oslo and courses in transitions to democratic rule from post-Soviet rule at the Kyiv Mohyla Academy. Among recent publications are *Balancing Acts: Russian-Chinese Relations and Developments in the SCO and CSTO* (NUPI 2009) and "Pacts, Parties and Elite Struggle: Ukraine's Troubled Post-Orange Transition" (*Europe Asia Studies*, 2008). His academic publication lists include case studies of voting patterns in the Russian Duma, transition politics in Russia and Ukraine, and Russian foreign and security policies in the Commonwealth of Independent States. Flikke worked as a political adviser to the Conservative Party (Høyre) in parliament and is currently a member of the Sjur Lindebrække Democracy Award Committee with the Conservative Party.

Franklyn Griffiths

University of Toronto, Canada

Senior Fellow at Massey College, University of Toronto, Franklyn Griffiths is professor emeritus of political science and George Ignatieff Chair Emeritus of peace and conflict studies at the University of Toronto. His research and policy interests center on the Arctic, Russia, and international security affairs. Among his authored and

edited publications are *A Northern Foreign Policy* (1979), *Politics of the Northwest Passage* (1987), *Arctic Alternatives: Civility or Militarism in the Circumpolar North* (1992), *Strong and Free: Canada and the New Sovereignty* (1997), and “Built to Last: Conditionality and What It Can Do for the Disposition of Russian Weapon-Grade Plutonium” (Department of Foreign Affairs and International Trade, 2002). His most recent work is “Towards a Canadian Arctic Strategy,” which was published by the Canadian International Council in June 2009. At various times he served as director of the Centre for Russian and East European Studies at the University of Toronto, as senior policy adviser in the Office of the Secretary of State for External Affairs, as visiting professor at Stanford University, and as visiting scholar at the University of Cambridge (Scott Polar Research Institute). He retired in 2001 and, in addition to Arctic issues, is writing a book on the incivilities of Western civilization.

Joshua H. Ho

Singapore Navy and Rajaratnam School of International Studies, Singapore

Lieutenant Colonel Joshua H. Ho is a senior Fellow at the S. Rajaratnam School of International Studies, Singapore, and works in the Maritime Security Programme. He earned an M.A. from Cambridge University on an SAF (Overseas) Scholarship and also holds a M.Sc. (management, with distinctions) from the Naval Postgraduate School, California, where he was awarded the Graduate School of Business and Public Policy Faculty Award for Excellence in Management. He is also a Fellow of the Cambridge Commonwealth Society, an associate member of the U.S. Naval Institute, and a member of the International Institute for Strategic Studies. Lieutenant Colonel Ho is a serving naval officer with twenty-three years of service. He has served in various shipboard and staff appointments, including the command of a missile gun boat and stints in the Naval Operations, Plans, and Personnel Departments and the Future Systems Directorate, MINDEF. He has also held concurrent appointments of honorary aide-de-camp to the president, secretary to the Naval Staff Meeting, and secretary to the Policy and Strategy Meeting, MINDEF. He has edited or coedited five volumes: *Best of Times, Worst of Times: Maritime Security in the Asia-Pacific*, *The Evolving Maritime Balance of Power in the Asia-Pacific: Maritime Doctrines and Nuclear Weapons at Sea*, *Globalisation and Defence in the Asia-Pacific: Arms Across Asia*, *Realising Safe and Secure Seas for All*, and *Southeast Asia and the Rise of Chinese and Indian Naval Power: Between Rising Naval Powers*. He has also published in local and overseas journals, including *Asian Survey*, *Australian Army Journal*, *Contemporary Southeast Asia*, *Defence Studies*, *Journal of the Australian Naval Institute*, *Maritime Affairs*, *Korean Journal of Defense Analyses*, *Maritime Studies*, *Marine Policy*, *Military Technology*, *Ocean Development and International Law*, *Pointer*, and *Security Challenges*, and he has contributed to numerous books. He has also taught professional courses at the Home Team Academy and at the Singapore Armed Forces Military Institute.

Rob Huebert

Department of Political Science, University of Calgary, Canada

Dr. Rob Huebert is an associate professor in the Department of Political Science at the University of Calgary. He is also the associate director of the Centre for Military and Strategic Studies. He is currently a senior research Fellow of the Canadian International Council and a Fellow with Canadian Defence and Foreign Affairs Institute. Huebert has also taught at Memorial University, Dalhousie University, and the University of Manitoba. His areas of research interest include international relations, strategic studies, law of the sea, maritime affairs, Canadian foreign and defense policy, and circumpolar relations. He publishes on the issues of Canadian Arctic security, maritime security, and Canadian defense. His work has appeared in *International Journal*, *Canadian Foreign Policy*, *Isuma: Canadian Journal of Policy Research*, and *Canadian Military Journal*. He is coauthor of *Report to Secure a Nation: Canadian Defence and Security into the 21st Century* and coeditor of *Commercial Satellite Imagery and United Nations Peacekeeping* and *Breaking Ice: Canadian Integrated Ocean Management in the Canadian North*. He also comments on Canadian security and Arctic issues in both the Canadian and international media. In 2009, he released a study of U.S. Arctic policy, *The Reluctant Arctic Power*, as a monograph of the School of Public Policy, University of Calgary.

Valur Ingimundarson

Historical Institute, University of Iceland, Reykjavik, Iceland

Valur Ingimundarson is professor of contemporary history and chair of the Historical Institute at the University of Iceland. He is also associate Fellow at the London-based Royal United Services Institute and chair of the board of EDDA – Center of Excellence in Critical Contemporary Research at the University of Iceland. He received his Ph.D. from Columbia University. He is the author of several monographs and has written extensively on the Cold War, U.S.-European relations, Icelandic foreign and security policy, the Arctic, and postconflict politics in the Balkans. Among recent publications are “The Geopolitics of Arctic Natural Resources” (a report prepared for the European Parliament, 2010); “A Crisis of Affluence: The Politics of an Economic Breakdown in Iceland,” *Irish Studies in International Affairs* (2010); “War Crimes and Anti-Communist Resistance in World War II: (Re)interpreting Individual Guilt and National Pasts through a (Post-)Cold War Lens,” in *European Cold War Cultures* (Bern Stoeber et al., eds., 2010); “Iceland’s Post-American Security Policy, Russian Geopolitics, and the Arctic Question,” *RUSI Journal* (2009); *A Risk Assessment for Iceland: Global, Societal, and Military Factors: Findings of an Interdisciplinary Commission* (2009); *Ideological Shifts: The Reconfiguration of Icelandic Foreign and Security Policy 1991–2007* (ed., 2008); “Iceland’s Security Policy and Geopolitics in the North,” in *Emerging from the Frost: Security in the 21st Century Arctic* (Kjetil Skogrand, ed., 2008); and “The Politics of Memory and the Reconstruction of Albanian National Identity in Post-War Kosovo,” *History and Memory* (2007).

Pauli Järvenpää
Finnish Ambassador to Afghanistan

Dr. Pauli Järvenpää is director general, Department of Defense Policy, at the Ministry of Defense in Helsinki, Finland. He is responsible for both national and international defense policy, including EU security and defense policy issues, NATO cooperation, Russia, the United States, Nordic cooperation, Baltic security issues, arms control questions, and Arctic security. He assumed this position in March 2002. Järvenpää has academic degrees from Harvard College and Cornell University. He was a research associate at the International Institute for Strategic Studies in London, 1979–80; minister-counsellor at the Embassy of Finland in Washington, D.C., 1991–94; and defense counsellor at the Mission of Finland to NATO, 1999–2002. Järvenpää has been Finland's ambassador to Afghanistan since September 2010.

James Kraska
Judge Advocate General's Corps, U.S. Navy, and
U.S. Naval War College

James Kraska serves as an active duty commander in the U.S. Navy Judge Advocate General's Corps and was appointed by the provost as Howard S. Levie Chair of Operational Law at the U.S. Naval War College in Newport, Rhode Island. A member of the faculty of the International Law Department and a senior associate in the Center for Irregular Warfare and Armed Groups at the Naval War College, he also holds appointments as a senior Fellow at the Foreign Policy Research Institute and as a guest investigator at the Marine Policy Center, Woods Hole Oceanographic Institution in Woods Hole, Massachusetts. He has completed two operational law assignments with joint and naval task forces; two tours in Japan; and four Pentagon major staff assignments, including as chief of the International Negotiations Division on the Joint Staff. In his last Pentagon assignment, he served as the principal military drafter of the U.S. Arctic Region Policy, signed by the president in 2009. His books include *Maritime Power and the Law of the Sea* (Oxford University Press 2011) and *Contemporary Maritime Piracy: International Law, Strategy and Diplomacy at Sea* (Praeger Security International). He earned a research doctorate in law (J.S.D.) and a master's degree in law (LL.M.) from the University of Virginia School of Law; a professional doctorate in law (J.D.) from Indiana University Maurer School of Law, Bloomington; and a master of arts degree in defense policy from Claremont.

P. Whitney Lackenbauer
Department of History, St. Jerome's University (University of Waterloo),
Waterloo, Canada

Dr. P. Whitney Lackenbauer is associate professor and chair of the department of history at St. Jerome's University (University of Waterloo), Waterloo, Ontario, Canada. He is also a Fellow with the Canadian Defense and Foreign Affairs Institute, the Arctic Institute of North America, and the Wilfrid Laurier Centre for Military and Strategic Disarmament Studies. His recent books include *Canada and Arctic*

Sovereignty and Security: Historical Perspectives (2011); *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968–1974* (2010); *A Commemorative History of Aboriginal People in the Canadian Military* (2010); *Arctic Front: Defending Canada in the Far North* (with Ken Coates, Bill Morrison, and Greg Poelzer, 2008, winner of the 2009 Donner Prize for the best book on Canadian public policy); and *Battle Grounds: The Canadian Military and Aboriginal Lands* (2007). As a Canadian International Council research Fellow in 2008–09, he completed a major report titled *From Polar Race to Polar Saga: An Integrated Strategy for Canada and the Circumpolar World*. He has also served as a consultant to federal departments and is an adviser to the Gwich'in Council International. Lackenbauer's current research includes histories of the Canadian Rangers, the Distant Early Warning Line, Arctic sovereignty and security since the Second World War, and community-based histories of Cambridge Bay in partnership with the Kitikmeot Heritage Society.

Nikolaj Petersen

Department of Political Science, Aarhus University, Denmark

Nikolaj Petersen is emeritus professor of international relations, Department of Political Science, Aarhus University. His research focus has been on foreign policy theory, Danish foreign policy, the European Union and NATO, Cold War politics, and Arctic security and politics. He was editor of *Cooperation and Conflict* from 1976 to 1979; *Dansk Udenrigspolitik Årbog* (Danish Foreign Policy Yearbook) from 1988 to 1994; and *Dansk Udenrigspolitik Historie* (History of Danish Foreign Policy), 6 vols., from 2001 to 2004. Recent publications include *Europæisk og globalt engagement 1973–2006* [European and global engagement, 1973–2006], vol. 6, 2nd ed. (2006); “The Iceman That Never Came: ‘Project Iceworm,’ the Search for a NATO Deterrent, and Denmark 1960–62,” *Scandinavian Journal of History* (2008); “Globalisation Strategies: The Diplomacy of the Danish Cartoon Crisis 2005–06,” in *Diplomacy in Theory and Practice* (K. Aggestam and M. Jerneck, eds., 2008); “The Arctic as a New Arena for Danish Foreign Policy: The Ilulissat Initiative and Its Implications,” *Danish Foreign Policy Yearbook* (2009); “Kampen om den Kolde Krig i dansk politik og forskning” [The Cold War battle in Danish politics and research], *Historisk Tidsskrift* (2009); and “SAC at Thule: Greenland in the Global Strategy,” *Journal of Cold War Studies* (2010).

Tomas Ries

Swedish National Defence College, Stockholm, Sweden

Dr. Tomas Ries is senior lecturer at the Swedish National Defence College in Stockholm, focusing on issues of globalization and security. From 2005 to 2010, Ries was director of the Swedish Institute of International Affairs. From 1997 to 2004, he was senior researcher at the Finnish National Defence College in Helsinki, focusing on globalization and security, Finland's security policy, EU and NATO

affairs, and security issues in the High North. From 1992 to 1997, he was director of the International Training Course in Geneva, Switzerland, and deputy director of the Geneva Centre for Security Policy. From 1986 to 1992, he worked at the Institute for Defence Studies in Oslo, focusing on Soviet military strategy and forces in the High North. Ries holds a B.Sc. (economics) from the London School of Economics and Political Science and a Ph.D. from the Graduate Institute of International Studies at the Geneva University.

Courtney C. St. John

U.S. Navy

Courtney C. St. John is the climate change affairs officer for the U.S. Navy's Task Force Climate Change. Prior to holding her current position, she was John A. Knauss Marine Policy Fellow in the office of the oceanographer of the U.S. Navy. St. John holds a master's degree in environmental planning and policy from Clemson University, where her research focused on shoreline change policy in the coastal United States; she holds an undergraduate degree from Mary Washington College.

Rolf Tamnes

Norwegian Institute for Defence Studies, Oslo, Norway

Dr. Rolf Tamnes is director of the Norwegian Institute for Defence Studies in Oslo and member of the Leadership Group at the Norwegian Defence University College. He is leading the international research program Geopolitics in the High North. Tamnes has been adjunct professor at the University of Oslo for many years. He was a member of the Government Defence Review Committee in 1999–2000 and of the Parliament Oversight Committee on Intelligence and Security in 2001–03. He was a public policy scholar at the Woodrow Wilson Center in 2005–06 and a visiting Fellow at the Center for Strategic and International Studies in 2006. Among his publications are *Et større Norge*, in *Vendepunkter i norsk utenrikspolitikk. Nye internasjonale vilkår etter den kalde krigen* [An expanding small power], in *Turning-Points in Norwegian Foreign Policy* (Even Lange, Helge Pharo, and Øyvind Østerud, eds., 2009); with Jacob Børresen and Gullow Gjeseth, *Norsk forsvarshistorie, bd. 5, Allianseforsvar i endring, 1970–2000* [The history of Norwegian defense], vol. 5 (2004); with Kjetil Skogrand, *Fryktens likevekt. Atombomben, Norge og verden 1945–1970* [Equilibrium of fear: The atom bomb, Norway, and the world, 1945–1970] (2001); *Norsk Utenrikspolitikk Historie, bind 6, Oljealder 1965–1995* [The history of Norwegian foreign policy, vol. 6, Oil age, 1965–1995] (1997); *The United States and the Cold War in the High North* (1991).

David W. Titley

U.S. Navy

A native of Schenectady, New York, Rear Admiral David W. Titley, U.S. Navy, was commissioned through the Naval Reserve Officers Training Commissioning program in 1980. He has served for more than ten years at sea on six ships. He has

commanded the Fleet Numerical Meteorology and Oceanography Command in Monterey, California, and the Naval Oceanography Operations Command based at Stennis Space Center, Mississippi. Shore tours include serving on the staff of the U.S. Commission on Ocean Policy and as the senior military assistant to the director of net assessment in the Office of the Secretary of Defense. During his first flag tour he served as commander, Naval Meteorology and Oceanography Command. His education includes a B.S. in meteorology from the Pennsylvania State University and a Ph.D. in meteorology from the Naval Postgraduate School. He was elected a Fellow of the American Meteorological Society in 2009. Rear Admiral Titley currently serves as oceanographer and navigator of the U.S. Navy, and as director of the U.S. Navy's Task Force on Climate Change.

Lee Willett

Royal United Services Institute for Defence and Security Studies

Dr. Lee Willett is head of the Maritime Studies Programme, in the Military Sciences Department at the Royal United Services Institute (RUSI) for Defence and Security Studies. He also is a Fellow of the Royal Society of Naval Sciences, Sweden, and a visiting lecturer at the University of Greenwich. He has published and lectured widely on maritime security issues. His most recent publications include the following RUSI articles and papers: "Mind the Gap: Strategic Risk in the UK's Anti-Submarine Warfare Capability," "An Awakening at Sea? NATO and Maritime Strategy," "The Navy in Russia's Resurgence," and "British Defence and Security Policy: The Maritime Contribution." He also authored "Old Roles and New Capabilities for Maritime Coalitions in the New World Order," in *Sea Power: Challenges Old and New* (Forbes, A. ed., 2007, Sea Power Centre – Australia: Proceedings of Royal Australian Navy Pacific Seapower 2006 Conference. Sydney: Halstead Press) and "Maritime Security: A Choice or Obligation – and the Implications for the European Union," in *The Question Marks over Europe's Maritime Security* (Security and Defence Agenda Discussion Paper, 2007, Brussels: SDA).

Adam Worm

Greenland Representation, Copenhagen, Denmark

Adam Worm earned a master of law degree from the University of Copenhagen in 1980 and served as head of section in several ministry posts from 1980 to 1985. From 1985 to 1989, he served as head of section and head of department, Agency for Salaries, Civil Servants Greenland. From 1989 to 2007, he served as senior adviser and head of department, Greenland Representation in Copenhagen. Since 2007, he has served as senior adviser and deputy, Greenland Representation in Copenhagen. Worm's career has dealt mostly with issues related to Greenland, including participation in negotiations for salaries for civil servants in Greenland; preparation of legislation; law of the sea; issues related to the U.S. base in Thule, Greenland; and work with

international affairs and the internal administration of Greenland and representation of Greenland in Copenhagen, Denmark.

Oran R. Young

Institutional and International Governance, Environmental Institutions

Oran R. Young is a renowned Arctic expert and a world leader in the fields of international governance and environmental institutions. Professor Young has served as vice-president of the International Arctic Science Committee and was the founding chair of the Board of Governors of the University of the Arctic. He was the first chair of the Committee on the Human Dimensions of Global Change within the National Academy of Sciences in the United States and has chaired the Scientific Committee of the International Human Dimensions Programme on Global Environmental Change and the Steering Committee of the Arctic Governance Project. Among the more than 20 books he has authored are *The Institutional Dimensions of Environmental Change* and *Governance in World Affairs*. His most recent book is *Institutional Dynamics: Emergent Patterns in International Environmental Governance*.

Katarzyna Zysk

Department of International Security Policy, Norwegian Institute for Defence Studies, Oslo, Norway

Dr. Katarzyna Zysk is a senior Fellow in the Department of International Security Policy at the Norwegian Institute for Defence Studies. She is a participant in the international research program Geopolitics in the High North, sponsored by the Norwegian Research Council and chaired by the Norwegian Institute for Defence Studies. Within the program, Zysk is working on a postdoctoral research project on security and military developments in the Arctic, with special focus on Russia's policies. Zysk earned her Ph.D. from the Institute for International Relations (2006) and her M.A. (2002, with distinctions) in history and international relations from Nicolaus Copernicus University in Torun, Poland. She served as a visiting research scholar at the Center for Naval Warfare Studies, Strategic Research Department, at the U.S. Naval War College in 2010. She was assistant lecturer in international relations and security policy at the Institute for International Relations in Torun (2005–06) and visiting researcher at the University of Oslo (2001, 2003–04). Proficient in Russian, Norwegian, English, Polish, and French, Zysk has conducted extensive research and published a monograph; a number of book chapters; and articles in academic journals and the media on a variety of subjects, including transformations in the Arctic security environment, Russia's policies in the polar regions, security in Central Europe and transatlantic relations, NATO enlargement, foreign and security policies of Norway and Poland, and diplomatic history. Her current research interests include strategic studies; contemporary international security affairs, in particular Russian security and defense policy; Russia-China relations; the Russian navy; and circumpolar relations.

Foreword

ARCTIC FUTURES: THE POLITICS OF TRANSFORMATION

Oran R. Young

It is beyond doubt that the Arctic is experiencing transformative change. Driven by the interacting forces of climate change and globalization, this transformation has turned the spotlight of public attention to a region previously known to the outside world largely as a homeland for indigenous peoples and a playing field for intrepid adventurers. Rapid melting of sea ice has given rise to visions of an ice-free Arctic Ocean during the foreseeable future. While uncertainty makes projections hazardous in this realm, it is reasonable to expect that the Arctic basin will be ice-free during parts of the year by 2050, and perhaps during much of the year by 2100.¹ Equally important from the perspective of commercial shipping and natural resource extraction, much of the remaining ice will be first-year ice in contrast to thicker and tougher multiyear ice. Combined with projections indicating that a sizable fraction of the world's remaining undiscovered reserves of oil and gas are located in the circumpolar Arctic, this development has sparked a surge of interest in the region among multinational corporations desiring to exploit Arctic hydrocarbons and minerals, shipping companies attracted by the prospect of using Arctic sea lanes for intercontinental as well as coastal commerce, and environmental organizations concerned about the ecological consequences of a rapid growth of economic activities in the region. It is no exaggeration to say that the Arctic has crossed a threshold leading to what systems analysts refer to as a state change. Like state changes occurring in other complex systems, the transformation now occurring in the Arctic is altering the landscape dramatically, proceeding at a rapid pace, and producing results that are almost certain to be irreversible.

¹ The actual decline in Arctic sea ice has been more rapid than climate models have anticipated. It is possible but by no means certain that this will lead to an ice-free Arctic basin sooner than current projections anticipate. See H. Koc et al. eds., *Melting Snow and Ice: A Call for Action*. (Tromsø: Norwegian Polar Institute, 2009).

Many observers have sought both to document and to understand the causes of the biogeochemical elements of this transformation. Others have taken up the challenge of assessing the economic calculations underlying the attractions of oil and gas production, commercial shipping, industrial fishing, and even adventure tourism likely to occur in the region in the decades to come. But what are the political implications of this suite of developments? How will the transformation of the Arctic affect the interests and capabilities of both Arctic and non-Arctic states? What will be the consequences for interested nonstate actors, including indigenous peoples' organizations as well as multinational corporations and environmental NGOs? Will we see fundamental shifts in the Arctic policy agenda? Will existing governance arrangements like the Arctic Council be up to the task of promoting cooperation and avoiding conflict in this setting? *Arctic Security in an Age of Climate Change* provides the first book-length effort to wrestle with these questions in a sustained and rigorous fashion. While it does not provide all the answers, it does give us a lot to think about as we seek to come to terms with these issues.

ARCTIC STATE CHANGES

From a political perspective, the essential feature of the transformation now occurring in the Arctic is a tightening of the links between global forces and regional processes. During the Cold War, the Arctic was divided into two armed camps with the Soviet Union on one side and the United States and four of its NATO allies – Canada, Denmark, Iceland, and Norway – on the other. The region loomed large in strategic calculations, not because of its intrinsic value but because it provided an attractive theater of operations for strategic weapons systems and especially nuclear-powered submarines equipped with submarine-launched ballistic missiles. However, the sensitivity of the Arctic in military terms had the side effect of inhibiting other activities in the region. In the aftermath of the Cold War, the Arctic emerged as a low-tension area of limited importance in global terms. Starting with Mikhail Gorbachev's "Arctic zone of peace" speech in October 1987, the region became a target of opportunity for those interested in promoting various forms of international and transnational cooperation. A flurry of regional initiatives ensued, culminating in the establishment of the Arctic Council in 1996 and in the development of the council into an increasingly prominent vehicle for addressing Arctic issues and promoting international cooperation in the intervening years.

The state change occurring now involves a dramatic shift in the role of the Arctic in the global system. Climate change, whose effects are being felt in the Arctic both sooner and more dramatically than in other areas, is a consequence of anthropogenic forces originating far beyond the bounds of the region. For better or worse, the Arctic has emerged as the leading edge with regard to the impacts of climate change. Ironically, the rapid growth of interest in exploiting the Arctic's natural resources and taking advantage of new opportunities for commercial shipping

reflects the needs of those responsible for the biogeochemical forces that have given rise to the transformation in the region. The Arctic is thus on the receiving end of a combination of forces whose origins lie far beyond the boundaries of the region itself. It may be going too far to describe these developments as the start of a new chapter in core-periphery relations; however, the asymmetry is striking. Global forces largely beyond the control of Arctic stakeholders and rights holders have triggered a cascade of changes that have brought the region to the attention of powerful political and economic leaders who showed little or no interest in the Arctic in earlier times and who are not particularly sensitive to the fate of the Arctic and its permanent inhabitants today.

What can we say about the political consequences of this new relationship between the Arctic and the outside world? In this commentary, I draw attention to three prominent features of the politics of transformation: one involving the interests of the “ice states” in contrast to the Arctic states, a second involving the interests of non-Arctic states as distinct from the Arctic states, and a third reflecting the growing importance of nonstate actors in world affairs.

ARCTIC STATES/ICE STATES – TENSIONS WITHIN THE FAMILY

Since the late 1980s, eight states (Canada, Russia, the United States, and the five Nordic states) have taken the lead in launching cooperative measures in the Arctic first in the form of the Arctic Environmental Protection Strategy adopted in 1991 and then in the form of the Arctic Council established in 1996. The acceptance of the Arctic Eight as the appropriate grouping of actors to take these steps was not a foregone conclusion. Some key actors fought hard at the time to limit these initiatives to the Arctic Five or, in other words, Canada, Denmark, Norway, Russia, and the United States. Nonetheless, with the initiation by Finland of the Rovaniemi Process in 1989, the Arctic Eight became the accepted cast of characters for purposes of addressing Arctic issues at the international level. For all practical purposes, the question of membership was laid to rest.

The current transformation has triggered renewed interest in this question. Because both the biogeochemical and the socioeconomic forces at work in the Arctic today focus largely on the Arctic Ocean and adjacent coastal areas, the five ice states have taken steps to enhance their ability to dominate Arctic policy, without engaging Finland, Iceland, and Sweden and without showing much concern for the views of the indigenous peoples' organizations that have the status of Permanent Participants in the Arctic Council. To be sure, the Arctic Five have made a point of stressing their adherence to applicable international agreements (e.g., the UN Convention on the Law of the Sea [UNCLOS]) and their commitment to managing Arctic affairs in a law-abiding manner. In the 2008 Ilulissat Declaration, for instance, they made much of the proposition that they are in a unique position to address the consequences of biogeochemical and socioeconomic changes in the