

Hybrid Warfare and Climate Change

How might China and Russia use hybrid warfare tactics to exploit climate vulnerabilities?

Online Conference

Sept 29, 2022, 1300 - 1600 EDT

CHSG
Climate & Human Security Group



Letter from the Host

On behalf of the U.S. Naval War College, we welcome you to this virtual conference about the "Hybrid Warfare and Climate Change." This event takes another step forward in the climate security dialog where we will explore how China and Russia can use hybrid warfare tactics to further exploit vulnerabilities caused by climate change impacts.



Climate change has been characterized as a shaping threat which alters the broader landscape where conflict occurs. Within the context, the implementation of a wide variety of hybrid warfare methods pushes against the current international system of rules and norms. Hybrid warfare remains a broadly defined term to describe covert and overt hostile actions through political warfare, lawfare, irregular warfare, cyber warfare, mis/disinformation, and conventional tactics. Malign actors can seek opportunities when adversaries are compromised and weaponize any resource. Within the shifting context of climate change, current tensions and future conflict can expect to see the increasingly creative use of hybrid warfare tactics.

In addition, climate change-related impacts can exacerbate an already insecure political/social context. Vulnerability is further increased with the likelihood of compounding events. Recent research is beginning to explore how malign actors can exploit the vulnerabilities during these moments when institutions are already overwhelmed and working to restore normalcy. The potential for these types of actions in conjunction with an increase in hybrid warfare techniques opens a new avenue of future warfare.

This event will explore how climate-related events and a variety of hybrid warfare techniques could interact with a specific look at Russia and China. With a panel on each country, experts will talk through how that country uses hybrid warfare methods, their approach to energy and climate action, and then discuss how they can potentially exploit climate related vulnerabilities.

We proudly continue our tradition of hosting open and free events exploring topics at the intersection of climate and security. This event is made possible through the generous funding of the Jerome E. Levy Chair of Economic Geography at the U.S. Naval War College, Professor Christopher Jasparro, and the Naval War College Foundation. Thanks to all for their support of this event.

Sincerely,

A handwritten signature in black ink that reads "Andrea H. Cameron". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

CDR Andrea H. Cameron, Ph.D., Ed.D.
Permanent Military Professor,
National Security Affairs Department
Director, Climate & Human Security Group
U.S. Naval War College



This is an interactive PDF.

All navigation links are active.
Speaker names on agenda link to speaker bios with return links.

 = USNWC Alumni |  = USNWC Faculty



Contents

Letter from the Host	i
Agenda 1	
Introduction	1
Opening Remarks	1
Keynote Speaker	1
Panel 1: Russia, Hybrid Warfare, and Climate Change	1
Panel 2: China, Hybrid Warfare, and Climate Change	1
Closing Remarks	2
Biographies	3
Event Chair	3
Commander Andrea H. Cameron, Ph.D., Ed.D.	3
Opening Remarks	3
Stephen J. Mariano Ph.D.	3
Keynote Speaker	4
Colonel (GS) Sönke Marahrens	4
Panel 1: Russia, Hybrid Warfare, and Climate Change	5
Scott Jasper, Ph.D., CAPT, USN (ret)	5
Anna Mikulska, Ph.D.	5
Angelina Davydova	6
Rebecca Pincus, Ph.D.	6
Panel 2: China, Hybrid Warfare, and Climate Change	7
Derek Solen, Ph.D.	7
Edward Cunningham, Ph.D.	7
Eyck Freeman, Ph.D.	8
Erin Sikorsky	8
Recommended Resources	9
Naval War College (NWC) Climate Change Library Guide.....	9
Climate Security Think Tanks and Centers:	9
Climate Science Research Organizations:.....	10
Thank You	11

Views presented by faculty do not reflect official positions of the USNWC, DON or DOD.

Agenda

☉ 1300 - 1330 (1700 – 1730 UTC)

Introduction

Commander Andrea H. Cameron, Ph.D., Ed.D., Permanent Military Professor, National Security Affairs Department; Director, Climate & Human Security Studies Group, U.S. Naval War College

Opening Remarks

Stephen Mariano, Ph.D., Provost, U.S. Naval War College

Keynote Speaker

Colonel (GS) Sönke Marahrens, Director of the Community of Interest on Strategy and Defence, European Centre of Excellence for Countering Hybrid Threats, Helsinki, Finland

☉ 1330 - 1430 EDT (1730 – 1830 UTC)

Panel 1: Russia, Hybrid Warfare, and Climate Change

- **Scott Jasper, Ph.D., CAPT, USN (ret)**, Senior Lecturer, Naval Postgraduate School, Center on Combating Hybrid Threats
- **Anna Mikulska, Ph.D.**, Fellow in energy studies, Baker Institute's Center for Energy Studies
- **Angelina Davydova**, Climate Projects Coordinator with n-ost (Berlin)
- **Rebecca Pincus, Ph.D.**, Director, Polar Institute, Wilson Center

☉ 1430 – 1440 EDT (1830 - 1840 UTC) – Break –

☉ 1440 – 1550 EDT (1840 – 1950 UTC)

Panel 2: China, Hybrid Warfare, and Climate Change

- **Derek Solen, Ph.D.**, Senior Researcher, U.S. Air Force's China Aerospace Studies Institute
- **Edward Cunningham, Ph.D.**, Director, Asia Energy & Sustainability Initiative, Harvard Kennedy School
- **Eyck Freeman, Ph.D.**, Postdoctoral Research Fellow at the Columbia–Harvard China & the World Program and the Harvard Arctic Initiative

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- **Erin Sikorsky**, Director, Center for Climate and Security

⦿ 1550 – 1600 EDT (1950 – 2000 UTC)

Closing Remarks

Commander Andrea H. Cameron, Ph.D., Ed.D., Permanent Military Professor,
National Security Affairs Department; Director, Climate & Human Security Studies
Group, U.S. Naval War College

Biographies

Event Chair

Commander Andrea H. Cameron, Ph.D., Ed.D. ----- Chair



Permanent Military Professor, National Security Affairs Dept.; Founding Director of the Climate and Human Security Studies Group, U.S. Naval War College

Commander Andrea H. Cameron is a Permanent Military Professor teaching policy analysis in the National Security Affairs Department at the U.S. Naval War College and the founding director of the Climate and Human Security Studies Group. She also teaches on climate change and national security. Her academic interests explore non-traditional and transnational security threats and their impact on U.S. strategic, national security and economic interests. These research interests include climate change and security, climate and energy policy, human security topics, and civil-military coordination during humanitarian assistance/disaster relief. Andrea Cameron holds a B.A. degree in Political Science from Marquette University, a M.A. in Human Resource Development from The George Washington University, a M.S. in Military Operational Art and Science from the Air Command and Staff College, an Ed.D. in Educational Technology from Pepperdine University, and a Ph.D. in Security Studies from the Naval Postgraduate School. She is currently a contributing author for the 5th National Climate Assessment.

Andrea Cameron is a Fulbright Scholar awardee in NATO Security Studies in Belgium for the academic year 2022-2023. Andrea will be teaching climate security at the College of Europe and researching climate security policy development in NATO and NATO member states.

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andreahecameron.com

Opening Remarks

Stephen J. Mariano Ph.D. ----- Opening Remarks



Provost, U.S. Naval War College

Provost Stephen Mariano, Ph.D., most recently served as the deputy commandant and dean of the NATO Defense College in Rome, Italy. He also served on the faculties of the School of International Service at American University, National Defense University, the Royal Military College of Canada and the U.S. Military Academy. He holds a B.A. in mathematics and economics from the University of California, Santa Barbara, an M.A. in national security affairs from the Naval Postgraduate School, and a Ph.D. in war studies from the Royal Military College of Canada.

Views presented by faculty do not reflect official positions of the USNWC, DON or DOD.

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Keynote Speaker

Colonel (GS) Sönke Marahrens

Keynote



Director of the Community of Interest on Strategy and Defence, European Centre of Excellence for Countering Hybrid Threats, Helsinki, Finland

Colonel (GS) Sönke Marahrens is a career Air Force officer, trained as Radar Controller, he held various military positions including Battalion Command and FLO to USJFCOM, previously serving as head of research for Strategy and Armed Forces at the German Institute for Defence and Strategic Studies in Hamburg. As well as a Full Diploma in Computer Science, he holds a master's degree from the Royal Military College in Kingston, Canada, and another from the University of the Federal Armed Forces in Hamburg. He was deployed with NATO to Bosnia and Kosovo, and in 2020 served as Branch Head for Transition at HQ Resolute Support in Kabul, Afghanistan.

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Panel 1: Russia, Hybrid Warfare, and Climate Change

Scott Jasper, Ph.D., CAPT, USN (ret)

Panel 1



Senior Lecturer, Naval Postgraduate School, Center on Combating Hybrid Threats

Dr. Scott Jasper, CAPT, USN (ret) is a Senior Lecturer at the National Security Affairs Department at the Naval Postgraduate School, specializing in defense strategy, hybrid warfare, and cyber policy. He received his Ph.D. from the University of Reading, U.K. He is the author of *Russian Cyber Operations: Coding the Boundaries of Conflict* (Georgetown University Press), *Strategic Cyber Deterrence: The Active Cyber Defense Option* (Rowman and Littlefield) and editor of *Conflict and Cooperation in the Global Commons*, *Securing Freedom in the Global Commons*, and *Transforming Defense Capabilities: New Approaches for International Security*. Scott has published chapters in various handbooks related to cybersecurity and articles in *Strategic Studies Quarterly*, *Signal Magazine*, *United States Cybersecurity Magazine*, the *International Journal of Intelligence and CounterIntelligence*, *The National Interest*, *Small Wars Journal*, and *The Diplomat*, and blog posts for *The Conversation*, the *Atlantic Council*, the *Foreign Policy Research Institute*, and *Council on Foreign Relations*. He has spoken on defense and cyber issues on national media outlets, like NPR, KCBS Radio SF, and The First TV, and provided commentary in international newspapers, such as *The Los Angeles Times*, *Daily Express UK*, French daily *Libération*, and *S&P Global Market Intelligence*.

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Twitter: @ScotJasper

Anna Mikulska, Ph.D.

Panel 1



Fellow in energy studies, Baker Institute's Center for Energy Studies

Anna Mikulska, Ph.D., is a nonresident fellow in energy studies at the Baker Institute's Center for Energy Studies. Her research focuses on the geopolitics of natural gas within the EU, former Soviet Bloc and Russia. Her current projects assessing potential use of natural gas as a geoeconomic tool and investigating ways to leverage U.S. LNG exports to bolster European energy security. Mikulska is also a fellow at the Foreign Policy Research Institute and teaches graduate-level seminars in geopolitics of energy at the University of Pennsylvania. Mikulska speaks Polish, English, German, Farsi and Russian. She received a law degree from Adam Mickiewicz University, a master's degree in international relations from the University of Windsor in Canada, and a Ph.D. in political science from the University of Houston.

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Angelina Davydova

Panel 1



Climate Projects Coordinator with n-ost (Berlin)

Angelina Davydova is an environmental and climate journalist, writing for international media. She is also a co-host of the podcast The Eurasian Climate Brief. She was based in St. Petersburg, Russia until mid-March 2022 and is currently based in Berlin, Germany.

Angelina is a fellow with a journalistic program Media in Cooperation and Transition (MICT) in Berlin. She is also a climate journalism coordinator with n-ost, a Berlin-based network for cross-border journalism. Angelina has been an observer with the UN climate negotiations (UNFCCC) since 2008. She is a member of the World Future Council since October 2020. Angelina gives guest lectures and seminars at a number of universities in Russia, Germany and the US and organizes trainings on environmental and climate journalism, writing, and communication for media and NGO professionals. She is also a member of the Ukraine War Environmental Consequences Work Group.

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Rebecca Pincus, Ph.D.

Panel 1



Director of Polar Institute, Wilson Center

Dr. Rebecca Pincus is director of the Polar Institute at the Woodrow Wilson Center in Washington, DC. She previously served at the US Naval War College, where she held the position of assistant professor in the Center for Naval Warfare Studies. She has also worked in the Office of the Secretary of Defense for Policy, as Arctic and Climate Strategy Advisor with the Deputy Assistant Secretary of Defense for Arctic and Global Resilience. Dr. Pincus worked on polar strategy and policy issues for the US Coast Guard at its Center for Arctic Study and Policy, where she remains a fellow.

Dr. Pincus's work has appeared in publications including the Royal United States Institute Journal, Arctic Yearbook, Strategic Studies Quarterly, and Proceedings. She is currently a contributing author for the 5th National Climate Assessment.

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Panel 2: China, Hybrid Warfare, and Climate Change

Derek Solen, Ph.D.

Panel 2



Senior Researcher, U.S. Air Force's China Aerospace Studies Institute

Derek Solen is a senior researcher at the U.S. Air Force's China Aerospace Studies Institute, which he joined in 2019. Before joining CASI, he worked as a civilian intelligence specialist in the U.S. Army's 500th Military Intelligence Brigade from 2007. During that period, he worked at U.S. Army Pacific's Analysis and Control Element as well as the Pacific Command's Joint Intelligence Operations Center; then he spent a decade at the brigade's Asian Studies Detachment on Camp Zama in Japan, where he became the chief of the detachment's Northeast Asia Division. He received a bachelor's degree in area studies from Ritsumeikan Asia Pacific University and a master's degree in military history from Norwich University.

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Edward Cunningham, Ph.D.

Panel 2



Director, Asia Energy & Sustainability Initiative, Harvard Kennedy School

Professor Edward Cunningham is Director of the Ash Center China Programs and the Asia Energy and Sustainability Initiative at the Harvard Kennedy School. His work focuses on China's integration into the world economy, primarily through its energy and environmental markets, philanthropic sector, and international trade. Edward also advises private and publicly listed companies, investment banks, and venture/PE funds focusing largely on energy and environmental technologies, infrastructure assets, education technologies, and financial and technology-enabled services. He graduated from Georgetown University, received an A.M. from Harvard University, holds a Ph.D. from M.I.T., and studied at Peking University and later at Tsinghua University as a Fulbright Fellow. He is also an Adjunct Lecturer at the Harvard Kennedy School.

He first lived in China in 1992, speaks Mandarin and Italian, and his work has appeared in media such as The New York Times, The Financial Times, The New Yorker, The Economist, The Wall Street Journal, Forbes, Fortune, NPR, PBS, ABC, Bloomberg and a range of Chinese outlets.

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Eyck Freeman, Ph.D.

Panel 2



Postdoctoral Research Fellow at the Columbia–Harvard China & the World Program and the Harvard Arctic Initiative

Eyck is Postdoctoral Research Fellow with joint appointments at the Columbia–Harvard China & the World Program and the Harvard Belfer Center’s Arctic Initiative. He is also a Non-Resident Research Fellow of the China Maritime Studies Institute at the U.S. Naval War College.

Eyck’s first book, *One Belt One Road: Chinese Power Meets the World* (Harvard University Press 2020), is assigned as required reading in undergraduate courses at Harvard, Columbia, Cambridge, and elsewhere. His essays on China matters and the COVID-19 pandemic have appeared in *The Wall Street Journal*, *Foreign Affairs*, *The Economist*, and *The Atlantic*. Most recently, he is the author of “The Warming War,” a series of investigative reports for *The Wire China* about the emerging geopolitics of climate change.

A historian by training, Eyck holds a doctorate in China Studies from Oxford, masters degrees from Cambridge and Harvard, and a bachelors from Harvard.

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Erin Sikorsky

Panel 2



Director, Center for Climate and Security

Ms. Erin Sikorsky is Director of the Center for Climate and Security (CCS), and the International Military Council on Climate and Security (IMCCS). Previously, Erin served as Deputy Director of the Strategic Futures Group on the National Intelligence Council (NIC) in the US, where she co-authored the quadrennial Global Trends report and led the US intelligence community’s environmental and climate security analysis. Ms. Sikorsky is an adjunct professor at George Mason University, a visiting fellow at University of Pennsylvania’s Perry World House, and serves on the advisory board of the Smith College Center for Environment, Ecological Design and Sustainability. She has published articles in a range of outlets, including *Survival*, *Environmental Affairs*, *The Strategist*, *Lawfare*, *War on the Rocks*, *The Hill*, *Just Security*, and *The Cipher Brief*. Ms. Sikorsky earned a Master of International Affairs at Columbia University, and a B.A. in government from Smith College.

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Recommended Resources

Naval War College (NWC) Climate Change Library Guide

<https://usnwc.libguides.com/climatechange>

This research portal available to all—organizing materials in over ten subpages focused on categories like international climate change and DOD Climate Resources as well as human security issues like water security, food security, and migration. The guide features countless open-source resources from U.S. Government, international, and academic organizations and books, journals, and databases accessible to those with NWC credentials.

Climate Security Think Tanks and Centers:

- Center for Climate and Security <https://climateandsecurity.org>
- International Military Council on Climate and Security <https://imccs.org>
- Wilson Center—Environmental Change and Security Program (ECSP) <https://www.wilsoncenter.org/program/environmental-change-and-security-program>
- American Security Project (ASP) Climate Security <https://www.americansecurityproject.org/issues/climate-security>
- Center for a New America Security—Climate Change <https://www.cnas.org/research/energy-economics-and-security/energy-exports/climate-change>
- Stimson Center Climate Security <https://www.stimson.org/project/climate-security>
- International Institute for Strategic Studies (IISS)—Environmental and Climate Change <https://www.iiss.org/topics/environmental-and-climate-change>
- Stockholm International Peace Research Institute (SIPRI)—Climate Change and Security <https://www.sipri.org/research/peace-and-development/climate-change-and-risk/climate-change-and-security>
- Stockholm International Peace Research Institute (SIPRI)—Climate Change and Risk <https://www.sipri.org/research/peace-and-development/climate-change-and-risk>
- Planetary Security Initiative <https://www.planetarysecurityinitiative.org>
- Center for Climate and Energy Solutions (C2ES) <https://www.c2es.org>

Climate Science Research Organizations:

- NASA Climate Change and Global Warming <https://climate.nasa.gov>
- NOAA Climate <https://www.noaa.gov/climate>
- Woods Hole Oceanographic Institution—Climate & Ocean
<https://www.whoi.edu/know-your-ocean/ocean-topics/climate-ocean>
- Woodwell Climate Research Center <https://www.woodwellclimate.org>
- World Resources Institute Climate <https://www.wri.org/our-work/topics/climate>
- Union of Concerned Scientists (UCS)—Climate Change
<https://www.ucsusa.org/climate>
- American Meteorological Association—Climate Change
<https://www.ametsoc.org/ams/index.cfm/about-ams/ams-and-climate-change>
- Center for Climate Systems Research (Columbia University Earth Institute)
<https://csr.columbia.edu>
- The Energy and Resources Institute (TERI) <https://www.teriin.org>

Thank You

Thank you to the U.S. Naval War College staff and faculty who helped support this event:

President RADM Shoshana Chatfield, Ed.D.

U.S. Naval War College

Provost Stephen Mariano, Ph.D.

U.S. Naval War College

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The Naval War College Foundation

Prof. Michael H. Bush, Ed.D.

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Marc Cardillo – Media Services

Isabel Lopes – Librarian

And many thanks to the speakers and moderators who worked so hard to make this an incredibly successful event!