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2018 Forum, Preparing for a Climate Changed Future: Navigating the Impacts on our Military and Coastal Communities (program)

Virginia Coastal Policy Center, William & Mary Law School

Center for Climate and Security

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WILLIAM & MARY
VIRGINIA COASTAL
POLICY CENTER

THE CENTER FOR
CLIMATE AND
SECURITY



WILLIAM & MARY
WHOLE OF GOVERNMENT
CENTER OF EXCELLENCE

Preparing for a Climate Changed Future

Navigating the Impacts on our Military
and Coastal Communities

JULY 9, 2018

9:30AM - 2:00PM

WILLIAM & MARY

SADLER CENTER, CHESAPEAKE C

Welcome

From the Arctic Circle to Hampton Roads, the effects of climate change on national security are far and wide. The Center for Climate and Security recently issued its 2nd edition of a report detailing that sea level rise poses a concrete and swiftly growing risk to coastal military installations and their surrounding communities. The effects of rising water impact force readiness and current operations, and may ultimately influence the strategy behind how these forces can be deployed. Concurrently, the Arctic is warming, and as this new domain opens up to trade, naval traffic, and potential territorial disputes, maritime forces stationed along the Virginia coast will be called to respond.

Addressing the risks that sea level rise and a warming Arctic present requires a whole of government response – one that engages the public as well as the private sector, and provides resilience for the surrounding civilian communities and infrastructure.

We look forward to a discussion about the effects of climate on national security, and new ideas and ways for communities, states, and the military to begin to mitigate these risks.

Monday, July 9, 2018

Chesapeake C, Sadler Center

9:30 - 10:00 Coffee, Tea, Fruit, and Muffins

10:00 - 10:15 WELCOME AND FRAMING REMARKS

The Honorable John Conger, Director, The Center for Climate and Security, and former Assistant Secretary of Defense for Energy, Installations, and Environment

Professor Elizabeth A. Andrews '84, Professor of the Practice of Law and Director, Virginia Coastal Policy Center, W&M Law School

10:15 - 11:15 MISSION MELTING ARCTIC: THE EFFECTS OF A CHANGING CLIMATE ON MARITIME SECURITY

Chair: **Dr. Donglai Gong**, Assistant Professor, Virginia Institute of Marine Science, W&M

Scott D. Genovese, Director, Global Maritime Operational Threat Response Coordination Center, U.S. Coast Guard Headquarters

Sherri Goodman, Senior Advisor for International Security and Advisory Board Member, The Center for Climate and Security, and Senior Fellow, Wilson Center

Rear Admiral David W. Titley, USN (ret.), Founding Director, Center for Solutions to Weather and Climate Risk, Penn State University, and Advisory Board Member, The Center for Climate and Security

11:15 - 11:30 BREAK

11:30 - 11:45 BRIEFING: WHOLE OF GOVERNMENT APPROACHES TO CLIMATE AND NATIONAL SECURITY

Dr. Stephen E. Hanson, Vice Provost for International Affairs and Director of the Reves Center for International Studies, W&M

AGENDA

11:45 – 12:15 **KEYNOTE ADDRESS**

The Honorable Joshua Saks, Deputy Secretary of Natural Resources, Commonwealth of Virginia

12:15 – 12:30 **LUNCH BUFFET**

12:30 – 1:45 **THE WATER'S CUTTING EDGE: CREATIVE RESPONSES TO THE SECURITY RISKS OF THE RISING SEAS**

Introduction: **Lukas Haynes '93**, Executive Director, David Rockefeller Fund

Chair: **Professor Elizabeth A. Andrews '84**, Professor of the Practice of Law and Director, Virginia Coastal Policy Center, W&M Law School

Rear Admiral Ann Phillips, USN (ret.) M.B.A. '16, former Director of Surface Warfare (N86B), Chief of Naval Operations Staff, Advisory Board Member, The Center for Climate and Security

The Honorable John Conger, Director, The Center for Climate and Security, and former Assistant Secretary of Defense for Energy, Installations, and Environment

1:45 – 2:00 **CLOSING REMARKS**

Heather Messera, Director of Government Affairs, The Center for Climate and Security

Symposium Participants



Elizabeth Andrews '84

Elizabeth Andrews is a Professor of the Practice of Law and Director of William & Mary Law School's Virginia Coastal Policy Center. She formerly served as Senior Assistant Attorney General and Chief of the Environmental Section of the Virginia Office of the Attorney General, where she oversaw a team of attorneys representing and providing counsel to

the Secretary of Natural Resources and the natural resources agencies of the Commonwealth. She also chaired the Office's internal APA Committee and became known for her expertise in Virginia administrative law. Most recently, she served as the Water Policy Manager for the Virginia Department of Environmental Quality, where she worked closely with the legislature, the regulated community, and environmental organizations to address the water quality and quantity challenges facing Virginia, particularly its coastal areas.

Professor Andrews is a graduate of William & Mary and received her Juris Doctor degree, *summa cum laude*, from the Washington College of Law at American University. She serves as a Virginia representative on the Chesapeake Bay Program's Climate Resiliency Workgroup. She also served for many years as an appointed member of the Virginia Code Commission's Administrative Law Advisory Committee; is a graduate of the Leadership Fairfax program; serves as a member of the Secretary of Natural Resources' Bay TMDL Stakeholders Advisory Group; was a member of the Alternative Management Structures Workgroup of the Eastern VA Groundwater Management Advisory Committee; and is former Chair of both the Virginia State Bar's Communications Committee and the Richmond Bar Association's Energy and Environmental Law Section.



The Honorable John Conger

John Conger is Director of the Center for Climate and Security, where he oversees all of the Center's programs, and chairs the Climate and Security Advisory Group(CSAG).

Mr. Conger previously served as Senior Policy Advisor with the Center, and as the Principal Deputy Under Secretary of Defense (Comptroller) at the U.S. Department of Defense (DoD). As principal deputy comptroller, he assisted the Under Secretary of Defense

(Comptroller) in the performance of his or her duties, provided advice to the Secretary of Defense on all budgetary and financial matters, including the development and execution of the DoD's annual budget of over \$500 billion, and oversaw the DoD's efforts to achieve audit readiness.

Prior to his service as Deputy Comptroller, Mr. Conger oversaw energy, installations, and environmental policy throughout DoD in three different positions: as Assistant Secretary of Defense for Energy, Installations and Environment, as Acting Deputy Under Secretary of Defense for Installations & Environment, and as Assistant Deputy Under Secretary of Defense for Installations & Environment from 2009 to 2015. In this role, Mr. Conger oversaw a vast portfolio that included base closure, energy security, climate change, and management of \$850 billion in real property.

Before his appointment at DoD, Mr. Conger served for 12 years on legislative staffs in the U.S. Congress, including as Professional Staff for the House International Relations Committee. Previously, Mr. Conger was employed in the private sector as an aerospace engineer and defense analyst supporting the Office of the Secretary of Defense.

Mr. Conger holds a B.S. and an M.S. in Aeronautics and Astronautics from the Massachusetts Institute of Technology and an M.A. in Science, Technology and Public Policy from the George Washington University. He is also President of Conger Strategies and Solutions, LLC, and a non-resident senior adviser at the Center for Strategic and International Studies.

Scott D. Genovese

Mr. Genovese assumed his present position as Director, Global Maritime Operational Threat Response Coordination Center (GMCC) in March of 2014. The GMCC is the designated Executive Secretariat for the National Maritime Operational Threat Response Plan (MOTR) which ensures the timely and coordinated response to threats against the United States and its interests in the maritime approaches and maritime domain. Since 2006, the MOTR Plan has been used thousands of times to address the full range of maritime security threats, including suspected maritime terrorism, piracy, drug and migrant smuggling, suspected weapons of mass destruction, fisheries violations, and cyber threats.

Mr. Genovese served on active duty in the U. S. Coast Guard from 1979 until 2009. As a senior officer he commanded Coast Guard Cutters assigned to U.S. Navy forces during Operations Noble Anvil (1999) and Iraqi Freedom (2003). As the Chief of Law Enforcement Policy for the U.S. Coast Guard (2004-2007),

Captain Genovese was responsible for all aspects of the U.S. Coast Guard's maritime interdiction efforts.

In 2005, he led the Department of Homeland Security's maritime threat response plan development team and is a co-author of the final Maritime Operational Threat Response Plan.

Mr. Genovese received a Bachelor of Science degree from the U.S. Coast Guard Academy in 1979, and holds a Masters of Business Administration from Averett University. His military decorations include two Legion of Merit Medals, the Bronze Star Medal, the Navy and Marine Corps Commendation Medal, and four Coast Guard Commendation Medals.



Dr. Donglai Gong

Dr. Donglai Gong is an Assistant Professor at the Virginia Institute of Marine Science at William & Mary. He leads the Coastal & Polar Physical Oceanography lab and the Marine Technology Innovation Lab at VIMS. Dr. Gong obtained his Master's degree in Physics from MIT and Ph.D. in Oceanography from Rutgers University, and he joined VIMS-W&M in 2012 after his

postdoctoral study at the Woods Hole Oceanographic Institution. Dr. Gong is an expert in Arctic oceanography and long endurance autonomous underwater vehicles. He has conducted numerous field experiments studying Arctic Ocean circulation, heat & freshwater transport, and submarine canyons. He has served on numerous national review panels for Arctic research programs. Most recently, Dr. Gong is helping to lead an expedition through the Northwest Passage of the Canadian Arctic Archipelago with undergraduate and graduate students from around the country to learn about changes happening up in the Arctic and their potential impact.



Sherri Goodman

Sherri Goodman is an experienced leader and senior executive, lawyer and director in the fields of national security, energy, science, oceans and environment. She is currently a Senior Fellow at the Woodrow Wilson International Center and CNA, and a Senior Advisor for International Security at the Center for Climate and Security. Previously, she served as the President and

CEO of the Consortium for Ocean Leadership.

Goodman served as Senior Vice President and General Counsel of CNA (Center for Naval Analyses) where she was also the founder and Executive Director of the CNA Military Advisory Board, whose landmark reports include National Security and the Threat of Climate Change (2007), and National Security and the Accelerating Risks of Climate Change (2014), Advanced Energy and US National Security (2017), and The Role of Water Stress in Instability and Conflict (2017), among others. The film “The Age of Consequences,” in which Goodman is featured, is based on the work of the CNA Military Advisory Board.

Goodman served as the first Deputy Undersecretary of Defense (Environmental Security) from 1993-2001. As the chief environmental, safety, and occupational health officer for the Department of Defense (DoD), she oversaw an annual budget of over \$5 billion. She established the first environmental, safety and health performance metrics for the Department and, as the nation’s largest energy user, led its energy, environmental and natural resource conservation programs. Overseeing the President’s plan for revitalizing base closure communities, she ensured that 80% of base closure property became available for transfer and reuse. Ms. Goodman has twice received the DoD medal for Distinguished Public Service, the Gold Medal from the National Defense Industrial Association, and the EPA’s Climate Change Award.

Goodman has served on the staff of the Senate Armed Services Committee for Committee Chairman Senator Sam Nunn. She has practiced law at Goodwin Procter, as both a litigator and environmental attorney, and has worked at RAND and SAIC.

Goodman serves on the boards of the Atlantic Council and its Resilience Center, the Joint Ocean Commission Leadership Council, the Marshall Legacy Institute, the National Executive Committee of the US Water Partnership, the Advisory Committee of the US Global Change Research Program and the University Corporation for Atmospheric Research (UCAR). She is a life member of the Council on Foreign Relations, served on its Arctic Task Force in 2016 and on the Board of its Center for Preventive Action.

She has also served on the Responsibility to Protect Working Group co-chaired by former Secretary of State Madeleine Albright. In 2010, Goodman served on the Quadrennial Defense Review Independent Panel co-chaired by former National Security Advisor Stephen Hadley and former Secretary of Defense Bill Perry.

A summa cum laude graduate of Amherst College, she earned a law degree from Harvard Law School and a masters in public policy degree from the Harvard Kennedy School of Government.



Dr. Stephen E. Hanson

Dr. Stephen E. Hanson is the Vice Provost for International Affairs, the Director of the Wendy and Emery Reves Center for International Studies, and the Lettie Pate Evans Professor in the Department of Government at William & Mary.

Hanson received his B.A. from Harvard University (1985) and his Ph.D. from the University of California, Berkeley (1991).

He served from 2009-2011 as the Vice Provost for Global Affairs, and from 2000-2008 as the Director of the Ellison Center for Russian, East European, and Central Asian Studies at the Jackson School of International Studies, at the University of Washington, Seattle.

Hanson is the author of *Post-Imperial Democracies: Ideology and Party Formation in Third Republic France, Weimar Germany, and Post-Soviet Russia* (Cambridge University Press, 2010) and *Time and Revolution: Marxism and the Design of Soviet Institutions* (University of North Carolina Press, 1997), which received the 1998 Wayne S. Vucinich book award from the Association for Slavic, Eurasian, and Central Asian Studies, and a co-author (with Richard Anderson Jr., M. Steven Fish, and Philip Roeder) of *Postcommunism and the Theory of Democracy* (Princeton University Press, 2001).

His numerous articles analyzing postcommunist Russia in comparative perspective, the role of ideology in institutional change, and qualitative methods for social science research have appeared in distinguished academic journals.

Hanson won the University of Washington's Distinguished Teaching Award in 2004 and the UW's outstanding undergraduate mentor award in 2005. He has also taught as a Visiting Associate Professor of Government at Harvard University. He has been a Visiting Scholar at the Minda de Gunzburg Center for European Studies at Harvard, a Visiting Scholar at the Department of Politics and International Relations at Oxford University, and a Research Scholar at the Kennan Institute at the Woodrow Wilson International Center for Scholars in Washington, D.C.

From 2004-2008, he was Academic Director of the Program on New Approaches to Russian Security (PONARS), based in Washington, D.C.



Lukas Haynes '93

Lukas Haynes is a member of the Center for Climate and Security's Advisory Board, and Executive Director of the David Rockefeller Fund. Previously, he was Vice President of the Mertz Gilmore Foundation where he was responsible since 2006 for a philanthropic strategy to mitigate the risks of global warming, invest in low-income New York City communities, and protect

human rights. He is also an adjunct associate professor of global affairs and philanthropy at New York University. He was previously New York director of the John D. and Catherine T. MacArthur Foundation and program officer for international peace and security. From 2003-04, Mr. Haynes provided foreign and security policy advice to the Obama for U.S. Senate campaign. From 2000-01, he served on the Policy Planning Staff of the U.S. State Department as speechwriter for Secretary of State Madeleine K. Albright. Mr. Haynes has lectured at Harvard, Princeton, and West Point, and authored numerous publications as an analyst at the Carnegie Endowment for International Peace, the International Crisis Group, the Salzburg Seminar, and the International Peace Academy. He was educated at William & Mary and Oxford University, where he earned a master's degree in international relations.



Heather L. Messera

Heather L. Messera is Senior Fellow for Government Affairs at the Center for Climate and Security where she leads the Center's engagement with Congress and the Administration.

Previous to joining the Center for Climate and Security, Heather was with the Pew Charitable Trusts, where she managed the Pew Project on National Security, Energy and Climate, and her research focused on challenges and policies surrounding the confluence of energy security, climate change, and national security.

Heather's interest in the effects of climate as an international security issue developed during her time as the Director of the Defence and Security Committee of the NATO Parliamentary Assembly in Brussels. Before her work took her abroad, Heather was a Senior Research Assistant with the Foreign Policy Program at the Brookings Institution, where she focused on over-the-horizon threats, and issues ranging from robotics and artificial intelligence in warfare, to European Security policy and NATO operations in Afghanistan. Heather also

managed the Brookings 21st Century Defense Initiative as well as the military, intelligence and International Security Fellows program, and co-authored The Afghanistan Index. She began her policy career with the House Committee on Armed Services, as both Military Legislative Assistant and Staff Assistant to General Counsel and Readiness Subcommittee, where her portfolio included Iraq Freedom Fund and the Joint IED Defeat Organization, as well as various programs within the Operations and Maintenance budget.

Heather holds a Bachelors degree in Peace, War, and Defense and Political Science from the University of North Carolina at Chapel Hill and has a Masters degree in National Security and Strategic Studies from the U.S. Naval War College. She is a graduate of the U.S. Naval Command and Staff College, and has completed doctoral coursework in International Relations at Georgetown University.



Rear Admiral Ann Phillips, USN (ret.) M.B.A. '16

Rear Admiral Ann C. Phillips, USN (ret.) is an independent consultant working on resiliency and climate impact on national security. A Surface Warfare Officer, Rear Admiral Phillips has served in every warfare group of the Surface Navy: Destroyers, Aircraft Carriers, Amphibious, and Replenishment Ships. During her 31 years on active duty she commissioned and commanded

USS MUSTIN (DDG 89), and commanded Destroyer Squadron TWO EIGHT, and Expeditionary Strike Group TWO - which included all the Amphibious Expeditionary Forces on the East Coast of the United States. Ashore she was a Senior Fellow on the CNO's Strategic Studies Group XXVIII, and managed requirements and resources for the Surface Navy as Deputy Director and Director of Surface Warfare Division, (N86) in the Pentagon. While at N86, from 2009-2012 she served on the Chief of Naval Operations' Climate Change Task Force, and Energy Task Force, where she Co-Chaired the Surface Force Working Group - developing and implementing climate change adaptation and energy reduction strategies for the Navy. In addition, she has served overseas in Guam and Lisbon, Portugal, and operated extensively with NATO and Partnership for Peace nations.

Upon retirement from the U.S. Navy in 2014 she pursued her MBA at the Raymond A. Mason School of Business, William & Mary, graduating with distinction in 2016. During this time she also chaired the Infrastructure Working Group for the Hampton Roads Sea Level Rise Preparedness and Resilience Intergovernmental Pilot Planning Project. The project worked to develop a

collaborative, whole of government and community approach to address the impact of sea level rise across the Hampton Roads region that could be used as a template by other regions facing similar challenges. She continues to work to address sea level rise and climate impact on national security at the regional, state, and national level, appeared in the movie "Tidewater", and has served as a panelist and speaker to a broad range of audiences. She also serves on local, regional, and national non-profit Boards including on the Advisory Board for The Center for Climate and Security and the Board of Directors for the American Resilience Project, WHRO, CIVIC Leadership Institute and Coastal Community Resilience, Inc. (RISE). In her spare time, she is an active member of the Lafayette Wetlands Partnership and coordinates an evolving wetlands restoration project for her Norfolk, Virginia neighborhood.



The Honorable Joshua Saks

Joshua Saks is the Deputy Secretary of Natural Resources for the Commonwealth of Virginia. In this role, Joshua works on natural catastrophe planning and resilience, land conservation, historic preservation, wildlife and outdoor recreation. Prior to his appointment, Joshua spent eight years as the Legislative Director for the National Wildlife Federation, where he worked

on an array of issues including climate and clean air policy, agriculture policy, flood and hurricane preparedness and toxic chemical reform. Prior to working at National Wildlife Federation Joshua worked as the Federal Affairs office the Chesapeake Bay Foundation. Joshua has degrees from Ithaca College and St. John's College.



Rear Admiral David Titley, USN (ret.)

David Titley served as a naval officer for 32 years and rose to the rank of Rear Admiral. Dr. Titley's career included duties as commander of the Naval Meteorology and Oceanography Command; oceanographer and navigator of the Navy; and deputy assistant chief of naval operations for information dominance. He also served as senior military assistant for the director, Office of Net

Assessment in the Office of the Secretary of Defense.

In 2009, Dr. Titley initiated and led the U.S. Navy's Task Force on Climate Change. After retiring from the Navy, Dr. Titley served as the Deputy Undersecretary of Commerce for Operations, the chief operating officer position at the National Oceanic and Atmospheric Administration.

Dr. Titley serves on numerous advisory boards and National Academies of Science committees, including the CNA Military Advisory Board, the Advisory Board of the Center for Climate and Security, the Science and Security Board of the Bulletin of the Atomic Scientists, and the National Academy of Science Board on Atmospheric Sciences and Climate.

Dr. Titley is a fellow of the American Meteorological Society. He was awarded an honorary doctorate from the University of Alaska, Fairbanks. In 2017, Dr. Titley was the recipient of the College of Earth and Mineral Science Wilson Award for excellence in service.

Dr. Titley is currently serving as a Professor of Practice in the Department of Meteorology and Atmospheric Science, a Professor in the School of International Affairs, and founding Director of Center for Solutions to Weather and Climate Risk at the Pennsylvania State University.



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The Virginia Coastal Policy Center (VCPC) at William & Mary Law School provides science-based legal and policy analysis of issues affecting the state's coastal resources and communities, providing education and advice to a host of Virginia's decision-makers, from government officials and legal scholars to non-profit and business leaders.

With two nationally prominent science partners - the Virginia Institute of Marine Science, one of the largest marine research and education centers in the United States, and Virginia Sea Grant, a nationally recognized broker of scientific information - VCPC engages in a host of information exchanges and collaborative partnerships, working with internationally recognized scientists, local and state political figures, community leaders, the military, and others to integrate the latest science with legal and policy analysis to solve coastal resource management issues.

The Center grounds its pedagogical goals in the law school's philosophy of the citizen lawyer. VCPC students' highly diverse interactions beyond the borders of the legal community provide the framework for their efforts in solving the complex coastal resource management issues that currently face Virginia and the nation.

The Center for Climate and Security (CCS), a non-partisan institute of the Council on Strategic Risks, has a team and distinguished Advisory Board of security and military experts. CCS envisions a climate-resilient world which recognizes that climate threats to security are significant and unprecedented, and acts to address those threats in a manner that is commensurate to their scale, consequence and probability.

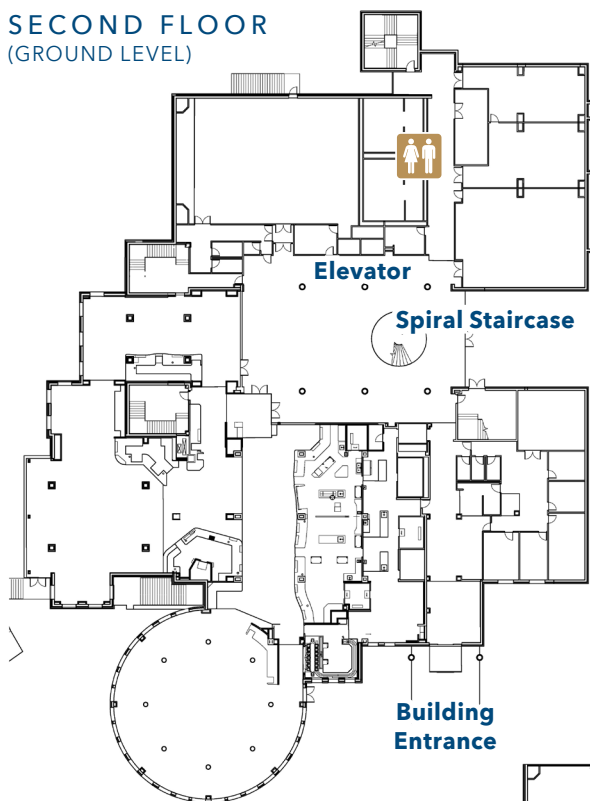
To further this goal, CCS facilitates policy development processes and dialogues, provides analysis, conducts research, communicates to the public, and acts as a resource hub in the climate and security field.

Climate change, in both scale and potential impact, is a strategically-significant security risk that will affect our most basic resources, from food to water to energy. National and international security communities, including militaries and intelligence agencies, understand these risks, and have already taken meaningful actions to address them. However, progress in comprehensively preventing, preparing for, adapting to and mitigating these risks will require that policy-makers, thought leaders and publics take them seriously.

The William & Mary Whole of Government Center of Excellence's mission is to provide mid-career public policy professionals and military officers in federal, state, and local agencies practical training on interagency collaboration, complex national security and other public policy problems, and to support research into "Whole of Government" solutions to these challenges. Amidst intensifying globalization, sound security policies require the collaboration of multiple branches of the U.S. military and civilian government agencies, among others. In addition to educational opportunities, the Center brings together leaders from all levels of government and the military for symposia, discussions, and projects to promote creative, collaborative solutions to emerging issues.

William & Mary Sadler Center

SECOND FLOOR (GROUND LEVEL)



THIRD FLOOR

