#### 2 July 2021

Hello, Climate & Security Network Members.

Below are some climate and security updates for the last 2 weeks.

Feel free to forward information for inclusion in next week's update.

Have a great holiday weekend,

Kristen

#### NEWS

- **Portable Nuclear Reactor Program Sparks Controversy** National Defense Magazine, 28 June 2021
- <u>UN irks Australia by recommending that Great Barrier Reef be listed 'in danger'</u> Reuters, 22 June 2021
- Official Details DOD Efforts to Improve Housing, Climate Resilience, Energy <u>Efficiency</u> DOD News, 22 June 2021
- **BOEM Announces Studies Development Plan for FY 2022 and 2023** Bureau of Ocean Energy Management, 21 June 2021
- Joint NASA, NOAA Study Finds Earth's Energy Imbalance Has Doubled NASA, 15 June 2021
- Biden to Stay Course on Nuclear Modernization National Defense Magazine, 15 June 2021
- <u>Academy Tells Army to Stick With Fossil Fuels; All-Electric Vehicles Not Practical</u> National Defense Magazine, 9 June 2021
- Deputy Defense Secretary Kathleen Hicks Explains How Climate Change Threatens
   <u>National Security</u>
   Forbes, 27 June 2021

#### **EVENTS**

• Leading Oil and Gas into a Net-Zero World

6 July 2021 / 9 – 10 am ET / 6 – 7 am PT

Hosted by the Atlantic Council, this event focuses on how the oil and gas industry can move toward net-zero while navigating a shifting geopolitical and regulatory environment. <u>Register here</u>.

BOEM Standing Committee on Offshore Science and Assessment

9-12 July 2021 / 12:00 – 5:00 pm ET / 9:00 am – 2:00 pm PT Held by the National Academies of Sciences, Engineering, and Medicine (NASEM), the 14th meeting of the BOEM Standing Committee on Offshore Science and Assessment (COSA) will showcase and provide feedback on the Studies Development Plan. The meeting will be an online event open to media and the public. The Academies require advance registration. <u>Register here</u>.

#### • **BOEM California Intergovernmental Renewable Energy Task Force Webinar** 13 July 2021 / 9 am – 4 pm PT

The webinar will include discussion of the next steps in the BOEM leasing process for establishing 'Wind Energy Areas' off California's north and central coasts. <u>Register here</u>.

## Climate Security Policy: An Overview of Some Commercial Influences Laber 2021 / 1200 1200 PT

13 July 2021 / 1200-1300 PTProfessor Nick Dew, NPS Graduate School of Defense Management, CSN Speaker Series: July 2021

Climate security policy depends in some crucial ways on assumptions about commercial factors such as the development of new technologies and the strategies of MNCs (multinational corporations). Sometimes these assumptions are empirically well-grounded; other times not so much. This presentation will address some key empirical trends and recent events in the business landscape that policymakers may want to keep one eye on.

This event is open only to NPS students and staff who are Climate and Security Network Members.

To join the Network, visit <u>nps.edu/climate</u>. Event will be virtual via MS Teams. To attend, RSVP by July 12 to: <u>kristen.fletcher@nps.edu</u>

#### <u>Climate Conversations: Climate Security</u>

#### 14 July 2021 / 3 – 4 pm ET / Noon – 1 pm PT

Sponsored by the National Academies of Sciences, Engineering and Medicine, the webinar is moderated by Lisa Friedman (The New York Times) and features Erin Sikorsky (The Center for Climate and Security) and Swathi Veeravalli (U.S. Africa Command) about how different parts of the security community are thinking about climate risks, what implications these risks hold for policy and planning, and where there are capacity gaps or aspects of climate security that need more research. <u>Register here</u>.

• Congressional Clean Energy Expo 26 July 2021 / 2 – 5 pm ET / 11 – 2 pm PT The Environmental and Energy Study Institute (EESI) and the House and Senate Renewable Energy and Energy Efficiency (REEE) Caucuses are hosting the Virtual Congressional Clean Energy Expo. Building on the more than 20 years of experience hosting clean energy leaders from various sectors, it will showcase technology and policy solutions to today's climate and energy use challenges. This year's half-day conference will feature three sessions, including a mid-day panel featuring the Senate Renewable Energy and Energy Efficiency Caucus Co-Chairs, Sen. Mike Crapo (R-Idaho) and Sen. Jack Reed (D-R.I.). <u>Register here</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

• USD(R&E) Environmental Sciences Portfolio Newsletter (ESPN) From the Office of the Under Secretary of Defense, Research and Engineering (USD(R&E)), this newsletter was created to inform those interested in environmental sciences of recent publications, articles, news, and events within the portfolio. ESPN is planned to be released every other month. For future iterations, there will be a dedicated mailbox and distro list. If you would like to be included on this distro, please contact Gina Mazzuca: <u>Gina.m.mazzuca.ctr@mail.mil</u>.

#### • <u>Australia Faces Critical Climate Security Threats & the Australian Security</u> <u>Leaders Climate Group is here to help</u>

This post by the Center for Climate and Security discusses the Australian Security Leadership Climate Group and its goal to create a more comprehensive governmentbacked environmental risk mitigation and response system in Australia.

#### USGS Wildland Fire Science Strategic Plan

To help minimize the detrimental impacts of wildfires while allowing for fire's beneficial aspects to unfold, the U.S. Geological Survey has developed a new five-year science strategy that defines critical science needs and directions for its wildland fire research. The strategy was developed by scientists and communication specialists at USGS and informed from interviews with 40 different stakeholder organizations. The plan and other wildland fire science resources at USGS are <u>available here</u>.

#### • <u>G7 Industrial Decarbonization Agenda</u>

At June's G7 summit, world leaders announced the launch of the G7 Industrial Decarbonization Agenda to accelerate the development and deployment of clean industrial technologies and plans to end public support for overseas unabated coal development by the end of 2021. The White House Fact Sheet is <u>available here</u>.

#### • 2021 Report Card for America's Infrastructure

Every four years, the American Society of Civil Engineers' Report Card for America's Infrastructure depicts the condition and performance of American infrastructure in the familiar form of a school report card—assigning letter grades based on the physical condition and needed investments for improvement.

<u>BRIEFER: Climate Change in the U.S. National Security Strategy: History and</u>
 <u>Recommendations</u>

Posted by the Center for Climate and Security and written by Holly Kaufman and Sherri Goodman, the briefer reviews and gleans lessons from the history of how climate change is treated in National Security Strategies. Based on an analysis of the trends since climate change was first mentioned in a NSS more than twenty years ago, this paper proposes recommendations to the forthcoming NSS. Read the briefer <u>here</u>.

#### **OPPORTUNITIES**

- The <u>Atlantic Council</u> has new opportunities.
  - <u>Veterans Advanced Energy Fellowship</u> (Applications due August 16, 2021)
  - <u>Global Energy Center Assistant/Associate Director for Digital Communications</u> <u>and Community Engagement</u>
- The <u>U.S. Army War College</u> is recruiting a <u>Professor of Environmental Security</u>. This is a full-time civilian faculty position within the Center for Strategic Leadership.

#### 9 July 2021

Hello, Climate & Security Network Members.

Below are climate and security updates for this week. Feel free to forward information for inclusion in the weekly update.

Also, for NPS faculty, please note that Elle Hancock of the EAG will send out a curriculum survey on Monday (12 July) to the CSN Network and NPS Chairs to collect information on **curriculum related to climate, environmental security and energy**. Please be on the lookout for that survey.

Have a great weekend,

Kristen

#### NEWS

- Here's what a megadrought in North America means for investors and possibly, the Fed MarketWatch, 9 July 2021
- Department of Energy Awards \$15.6 Million for Atmospheric Research to Improve <u>Climate Modeling</u> DOE News, 8 July 2021
- Seismic Monitoring of permafrost uncovers trends likely related to warming Science Daily, 8 July 2021
- **Pacific Wayfinder: Advancing Regional Security Through Research** Asia & the Pacific Policy Society, 7 July 2021
- <u>A More Sustainable Human-Nature Relationship</u> EurekAlert!, 28 June 2021 (*climate risk modeling framework for power systems*)

#### **EVENTS**

 Climate Security Policy: An Overview of Some Commercial Influences 14 July 2021 / 1200-1300 PT Professor Nick Dew, NPS Graduate School of Defense Management, CSN Speaker Series: July 2021 Climate security policy depends in some crucial ways on assumptions about commercial factors such as the development of new technologies and the strategies of MNCs (multinational corporations). Sometimes these assumptions are empirically well-grounded; other times not so much. This presentation will address some key empirical trends and recent events in the business landscape that policymakers may want to keep one eye on.

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#### Heat Season: The Latest Climate Curve Ball

14 July 2021 / 4 – 5 pm ET / 1 – 2 pm PT

Hosted by the National Academies of Sciences, Engineering, and Medicine, the event addresses the extreme heat that is affecting cities across the northern ranges of the U.S. and the lack of preparedness for this shift in our climate. Speakers include climate scientist Kate Marvel and Warner Bros. Pictures executive Cate Adams. <u>Register here</u>.

#### <u>Advancing Environmental Justice Through Climate Action</u>

15 July 2021 / 2:30 pm ET / 11:30 am PT

The House Select Committee on the Climate Crisis is holding a hearing to review opportunities to advance environmental justice through climate action, including targeting infrastructure investments to environmental justice communities, understanding the impact of extreme heat on low-income workers and students, and supporting tribal investments in clean energy and climate resilience. The event will live stream <u>here</u>.

#### <u>Fostering Resilience in Northern Central America</u>

22 July 2021 / 11 am - Noon ET / 8 - 9 am PT

Hosted by Foreign Policy, in partnership with World Vision and the World Bank, the event focuses on the urgent humanitarian challenges and structural causes of forced

migration across northern Central America. Convening leaders and experts from government, private sector and civil society, the program will explore a changing paradigm for regional development and capacity-building that prioritizes fostering resilience and systemic reform to stem internal displacement and forced migration. <u>Register here</u>.

#### • <u>Congressional Clean Energy Expo</u>

26 July 2021 / 2 – 5 pm ET / 11 – 2 pm PT

The Environmental and Energy Study Institute (EESI) and the House and Senate Renewable Energy and Energy Efficiency (REEE) Caucuses are hosting the Virtual Congressional Clean Energy Expo. Building on the more than 20 years of experience hosting clean energy leaders from various sectors, it will showcase technology and policy solutions to today's climate and energy use challenges. This year's half-day conference will feature three sessions, including a mid-day panel featuring the Senate Renewable Energy and Energy Efficiency Caucus Co-Chairs, Sen. Mike Crapo (R-Idaho) and Sen. Jack Reed (D-R.I.). <u>Register here</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- The podcast, <u>Clearing the Air on Carbon Offsets</u> is hosted by Climate One. It discusses carbon offsets and whether they deliver on their intended climate goals.
- The <u>NOAA National Centers for Environmental Information</u> has released the June 2021 Monthly Summary. It notes that last month was the warmest June on record for the contiguous U.S. and that eight U.S. weather and climate disasters exceeded a billion dollars each in the first half of 2021.
- The Environmental and Energy Study Institute has released an Issue Brief entitled <u>Autonomous Vehicles: State of the Technology and Potential Role as a Climate</u> <u>Solution</u>. Autonomous vehicles (AVs) are an emerging technology in surface transportation with tremendous potential to change the way individuals and communities interact with the built environment. The widespread use of AVs could also have a substantial impact on greenhouse gas emissions from the transportation sector, which is responsible for the largest share of emissions in the U.S. at 28%.
- <u>Converging Climate Risks: Government, Military and Business at NATO 2030</u> This post by The Center for Climate and Security includes highlights from a panel at the <u>NATO 2030 Brussels Forum</u>, entitled "Operating in Times of Climate Change." The panel and post address major climate risks and opportunities at the intersection of government, security, and business interests, exploring opportunities to expand collaboration around and commitments towards climate action.
- The <u>Spring/Summer 2021 issue of Witness the Arctic</u> is now published online. This issue includes highlights of a recent NSF Dear Colleague Letter on efforts to improve the

inclusion of local and Indigenous voices in Arctic research; news of a new Department of Defense Regional Center, the Ted Stevens Center for Arctic Security Studies; Arctic social science news about US student knowledge of polar regions; and more.

#### **OPPORTUNITIES**

#### • CALL FOR ARTICLES

The International Journal of Climate Change: Impacts and Responses welcomes article submissions related to (1) Scientific Evidence; (2) Assessing Impacts in Divergent Ecosystems; (3) Human Impacts and Impacts on Humans; and (4) Technical, Political and Social Responses. Visit here for information on how to submit. The next submission deadline is 15 July 2021 but submissions are open throughout the year with quarterly reviews of submissions.

#### • CALL FOR ABSTRACTS

The National Academies' Polar Research Board (PRB) is calling for abstracts for the following session at the 2021 Fall American Geophysical Union (AGU) meeting: <u>A Blue Arctic Ocean: Future U.S. Arctic Research and Marine Infrastructure Needs</u>. This session will explore specific research infrastructure and broad marine infrastructure needs such as: more accurate and timely marine weather and sea ice forecasting; increased oceanographic in-situ data; more accurate and complete hydrography and charting; a deep-draft Arctic port to support maritime and logistics activities; research and coastal icebreaking assets; communications and search and rescue infrastructure; and an understanding of species migration routes to safely guide vessel traffic and avoid conflicts with subsistence hunting. The abstract submission deadline is August 4, 2021.

#### 16 July 2021

Hello, Climate & Security Network Members.

Below are climate and security updates for this week. Feel free to forward information for inclusion in the weekly update.

Have a great weekend,

Kristen

#### NPS Climate & Security Network Weekly Update: 16 July 2021

#### NEWS

• <u>As Extreme Weather Intensifies, a Growing Need for Private-Sector Engagement in</u> <u>Government</u>

The Washington Post, 9 July 2021 Note: Opinion piece written by Rear Admiral Tim Gallaudet, PhD, USN Ret. He is the Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy Administrator of NOAA. If you don't have access to the Post, email me for a pdf version.

- <u>Clean hydrogen can fuel industrial decarbonization and environmental justice</u> The Hill, 8 July 2021
- Western North American extreme heat virtually impossible without human-caused climate change World Weather Attribution, 7 July 2021
- More than 75 companies ask Congress to pass clean electricity standard The Hill, 7 July 2021
- <u>NATO's Renewed Focus on Climate Change & Security: What You Need To Know</u> Just Security, 23 June 2021

#### **EVENTS**

• Fostering Resilience in Northern Central America 22 July 2021 / 11 am – Noon ET / 8 – 9 am PT Hosted by Foreign Policy, in partnership with World Vision and the World Bank, the event focuses on the urgent humanitarian challenges and structural causes of forced migration across northern Central America. Convening leaders and experts from government, private sector and civil society, the program will explore a changing paradigm for regional development and capacity-building that prioritizes fostering resilience and systemic reform to stem internal displacement and forced migration. Register here.

#### • National Academies: Climate Impacts on Health, Equity, and Security

22 July 2021 / 11 am - 12:30 pm ET / 8 – 9:30 am PT

Recent research has shown a clear relationship between the climate crisis and human well-being. Health impacts of climate will not be felt evenly around the world – as the report notes, "health hazards related to climate change affects different people and different communities to different degrees." Speakers include Gina McCarthy, White House National Climate Advisor; Jalonne L. White-Newsome, Empowering a Green Environment and Economy, LLC; and, Robert Bullard, Distinguished Professor of Urban Planning and Environmental Policy at Texas Southern University. <u>Register here</u>.

#### • <u>Congressional Clean Energy Expo</u>

#### 26 July 2021 / 2 – 5 pm ET / 11 – 2 pm PT

The Environmental and Energy Study Institute (EESI) and the House and Senate Renewable Energy and Energy Efficiency (REEE) Caucuses are hosting the Virtual Congressional Clean Energy Expo. Building on the more than 20 years of experience hosting clean energy leaders from various sectors, it will showcase technology and policy solutions to today's climate and energy use challenges. This year's half-day conference will feature three sessions, including a mid-day panel featuring the Senate Renewable Energy and Energy Efficiency Caucus Co-Chairs, Sen. Mike Crapo (R-Idaho) and Sen. Jack Reed (D-R.I.). <u>Register here</u>.

#### <u>AUSA Noon Report on the Army's Climate Strategy and Action Plan</u>

3 August 2021 / 11:55 ET / 8:55 PT The Association of the United States Army hosts this webinar on the Army's Climate Strategy and Action Plan featuring Lieutenant General Walter E. Piatt, Director of Army Staff, and Ms. Amy Borman, Deputy Assistant Secretary of the Army for Environment, Safety, Occupational Health (ESOH). <u>Register here</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

• The 2021 3<sup>rd</sup> Quarter edition of the NPS Energy Academic Group's (EAG) newsletter, <u>Surge</u>, is now available. The publication provides easy access to EAG activities, energy-related projects across the DoD, NATO, Academia, and Industry, and provides a pathway for student energy thesis research. The issue includes articles on installations combating climate change and extreme weather events, the NPS Climate and Security Network and energy and cyber security.

#### • <u>Central American Climate Migration is a Human Security Crisis</u>

This post by The Center for Climate and Security addresses the need to approach forced migration through a human security and development lens, rather than a traditional hard security one, and through coordinated regional responses.

#### • Is Climate Change a Threat to International Peace and Security?

This newly published article by Mark Nevitt in the *Michigan Journal of International Law* argues that climate change affects international peace and security in complex ways and that the window for international climate action is closely quickly.

 The U.S. House Armed Service Committee held a hearing on 14 July 2021 on the <u>FY22</u> <u>Budget Request for Military Construction, Energy and Environmental Programs</u>. Witnesses Acting Assistant Secretaries of Installations, Energy and Environment for the Army, Navy and Air Force.

#### **OPPORTUNITIES**

• <u>Request for Information on Coast Guard Programs, Regulations, and Policies for</u> <u>Addressing Climate Change</u>

The U.S. Coast Guard seeks input from the public on specific Coast Guard programs, regulations, policies and procedures that the Coast Guard should consider changing to combat and respond to climate change. Comments close 6 October 2021.

#### 23 July 2021

Hello, Climate & Security Network Members.

Below are climate and security updates for this week. Thanks to those who have shared links, resources and events, especially Tom Murphree, Marc Kodiak and Douglas Van Bossuyt.

Feel free to forward information for inclusion in the weekly update.

Have a great weekend,

Kristen

#### NPS Climate & Security Network Weekly Update: 23 July 2021

#### NEWS

- <u>Unsustainable Arctic shipping risks accelerating damage to the Arctic environment</u> Science Daily, 19 July 2021
- Official Testifies on DOD Budget Request for Construction, Energy, Environmental <u>Programs</u> DOD News, 15 July 2021
- <u>A Study Predicts Record Flooding In The 2030s, And It's Partly Because Of The</u> <u>Moon</u> National Public Radio, 14 July 2021
- Army Engineer Research and Development Center, Microsoft Agreement Aims to Analyze Risk of Extreme Weather in the Cloud U.S. Army Corps of Engineers, 14 July 2021
- Extreme weather fuels rise of 'virtual power plants' Financial Times, 13 July 2021
- Japan's new defense whitepaper issues warnings over Taiwan's security, climate change Defense News, 13 July 2021
- <u>Planetary Security Initiative holds first-ever climate security dialogue in South Iraq</u> Planetary Security Initiative, 6 July 2021 / View the video <u>here</u>.

#### **EVENTS**

#### <u>Congressional Clean Energy Expo</u>

26 July 2021 / 2 – 5 pm ET / 11 – 2 pm PT

The Environmental and Energy Study Institute (EESI) and the House and Senate Renewable Energy and Energy Efficiency (REEE) Caucuses are hosting the Virtual Congressional Clean Energy Expo. Building on the more than 20 years of experience hosting clean energy leaders from various sectors, it will showcase technology and policy solutions to today's climate and energy use challenges. This year's half-day conference will feature three sessions, including a mid-day panel featuring the Senate Renewable Energy and Energy Efficiency Caucus Co-Chairs, Sen. Mike Crapo (R-Idaho) and Sen. Jack Reed (D-R.I.). <u>Register here</u>.

#### • **<u>Rising Water in the SF Bay Area</u>**

28 July 2021 / 12:00 - 1:00 PM PT

Climate adaptation is discussed as an opportunity to upgrade infrastructure and improve equity in the Bay Area. This webinar is part of an ongoing series of World Affairs In Action to provide insight on global challenges and offer tools for solutions. <u>Register here</u>.

#### How We Adapt: Climate Change on the West Coast with Marketplace

29 July 2021 / 4:00 PM PT

Hosted by KQED, Marketplace's Molly Wood hosts a discussion about how West Coast communities and businesses are adapting to climate disruptions. <u>Register here</u>.

#### • Wildfire Safety Webinar

29 July 2021 / 6:00 - 7:30 PM PT

PG&E is hosting a webinar to discuss wildfire safety plans in Monterey, San Luis Obispo and Santa Barbara counties. Topics include: PG&E's wildfire prevention plans; Resources to help our customers and communities before, during and after PSPS events; improved technology and tools focused on safety. Register <u>here</u>.

#### <u>AUSA Noon Report on the Army's Climate Strategy and Action Plan</u>

3 August 2021 / 11:55 ET / 8:55 PT

The Association of the United States Army hosts this webinar on the Army's Climate Strategy and Action Plan featuring Lieutenant General Walter E. Piatt, Director of Army Staff, and Ms. Amy Borman, Deputy Assistant Secretary of the Army for Environment, Safety, Occupational Health (ESOH). <u>Register here</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

<u>New White Paper: Attribution Science in Takings Litigation</u>

The Sabin Center for Climate Change Law at Columbia Law School has published this paper which examines the role attribution science plays in climate-related takings cases. Read and download the paper <u>here</u>. Additional resources from the Sabin Center on the

intersection of law and science include <u>The Law and Science of Climate Change</u> <u>Attribution</u>, a comprehensive overview of attribution research and its application in legal settings, and the <u>Climate Attribution Database</u>, a repository of climate change attribution science.

• **Preparing the CSDP for the New Security Environment Created by Climate Change** Commissioned by the European Parliament's Subcommittee on Security & Defence, this study discusses how the EU's Common Security and Defence Policy (CSDP) can integrate climate change to a greater extent.

<u>Taking Stock: US Emissions Outlook Under Current Policy</u>

For the past seven years, Rhodium Group has provided an independent annual outlook for US greenhouse gas (GHG) emissions under current federal and state policy. This current policy baseline provides a starting point for assessing where additional work—in the form of federal, state, or corporate action—is necessary to achieve mid- and long-term US GHG emission reduction goals. Read the report <u>here</u>.

• Climate and Security in the Middle East and North Africa

This new report by the Congressional Research Service addresses the Middle East and North Africa (MENA) region as among the world's most water-stressed and vulnerable to climate change. Policymakers' concerns about a changing MENA climate include not only physical and economic impacts but also the potential implications for political stability and security in a volatile region.

#### **OPPORTUNITIES**

#### Online Course on Climate Change & National Security

Launched by <u>The Center for Climate and Security</u> and <u>The Conservation</u> <u>Coalition</u>'s <u>Market Environmentalism Academy</u>, this new online course provides an overview of the climate change-national security nexus, and has modules on clean energy competition as well as extreme weather impacts. Read more and view a video <u>here</u>.

#### 27 July 2021

Hello, Climate & Security Network Members. There are a few timely items that I wanted to share as a mid-week update below. I'll send the weekly update on Friday. Thanks, Kristen

#### NEWS

NOAA Forms New Climate Council NOAA News, 21 July 2021

There are also several interesting articles on the DOD Climate Page: <u>Air Force Secures \$24 Million for Readiness, Environment</u> Air Force News, 22 July 2021

**DOD, Navy Confront Climate Change Challenges in Southern Virginia** DOD News, 21 July 2021

Nevada Guard's 'High Rollers' Extend Wildfire Mission National Guard News, 20 July 2021

Marines Work to Protect Wildlife during Training (video)

Marines TV, 9 July 2021

#### **EVENTS**

**Financing Climate Solutions and Job Creation** 

29 July 2021 / 9:00 am ET / 6:00 am PT

Hosted by the House Select Committee on the Climate Crisis, the hearing **will focus on how Congress can create financial incentives and make smart investments to help families afford clean energy and energy efficiency technologies, to accelerate the deployment of zero-emission cars and trucks, and to create good-paying jobs across America. These incentives and investments include clean energy tax credits; clean vehicle tax credits; tax credits for domestic manufacturing; and a clean energy and sustainability accelerator.** 

#### **Opportunities**

Abstracts for **NOAA's 46th Climate Diagnostics and Prediction Workshop** are **due on Friday, July 30**. The workshop will focus on four major themes, with an emphasis on seasonal and subseasonal (S2S) prediction, monitoring, attribution, diagnostics, and service delivery related to:

1) The development and use of climate data records, including the impacts of updating base period climate normals on defining climatological base periods, verification, and trends.

2) Prediction, monitoring, and verification of extremes and extreme events related to the surface, ocean, atmosphere, land, and ice.

3) Applications of modern technologies including GIS, machine learning, and software development at S2S time scales.

4) Improving S2S precipitation prediction capabilities, sources of predictability, and user engagement practices for application in water resources.

Hello, Climate & Security Network Members.

Below are climate and security updates for this week. Thanks to those who have shared links, resources and events. We'll announce future events for the CSN in the coming weeks.

Have a great weekend,

Kristen

Kristen M Fletcher Faculty Associate-Research <u>Energy Academic Group</u> <u>NPS Climate & Security Network</u> Naval Postgraduate School <u>kristen.fletcher@nps.edu</u> Office: 831.920.1090 | Cell: 401.714.4686

#### NPS Climate & Security Network Weekly Update: 30 July 2021

#### NEWS

- <u>Climate Crisis Turns Subways into Flood Zones</u> The New York Times, 30 July 2021
- Wildfires Are So Dangerous Now that the National Guard Prepares for Them Like <u>Hurricanes</u> Defense One, 29 July 2021
- <u>Cutting Carbon Pollution Quickly Would Save About 74 Million Lives, Study Finds</u> NPR, 29 July 2021
- <u>Climate Change is a Unifying Threat NATO should enact Article 5 to combat it</u> The Hill, 27 July 2021
- <u>A 3 Degree World has no Safe Place</u> The Economist, 24 July 2021
- **DOE Will Fund Direct Air Capture** Department of Energy, 23 July 2021
- NOAA Creates Council to Tackle Climate Issues

Executive Gov, 22 July 2021

- Expanding Nuclear Energy to the Arctic: The potential of small modular reactors The Atlantic Council, 22 July 2021 Note: this post is by Dr. Julia Nesheiwat who presented to the CSN in June on the Advancing Arctic Research Panel.
- Summer of Floods: The climate connection behind deadly downpours around the world The Washington Post, 22 July 2021
- <u>Carbon Removal Industry Needs to Grow</u> Fast Company, 21 July 2021
- Preliminary Analysis concludes Pacific Northwest heat wave was a 1,000-year event... hopefully NOAA, 20 July 2021
- <u>Climate change threatens food security of many countries dependent on fish</u> Science Daily, 20 July 2021
- The US Army tried portable nuclear power at remote bases 60 years ago it didn't go well
   The Conversation, 20 July 2021
- <u>The life-or-death race to improve carbon capture</u> Chemical & Engineering News, 18 July 2021
- The EU proposes a carbon tariff on some imports The Economist, 17 July 2021

#### **EVENTS**

- <u>AUSA Noon Report on the Army's Climate Strategy and Action Plan</u> 3 August 2021 / 11:55 ET / 8:55 PT The Association of the United States Army hosts this webinar on the Army's Climate Strategy and Action Plan featuring Lieutenant General Walter E. Piatt, Director of Army Staff, and Ms. Amy Borman, Deputy Assistant Secretary of the Army for Environment, Safety, Occupational Health (ESOH). <u>Register here</u>.
- <u>Transition Trailblazers Series: Featuring Senator Chris Coons and Senator Mike</u>
   <u>Braun</u>

3 August 2021 / 11:45 am ET / 8:45 am PT

In this series, high-level speakers focus on the opportunities for bipartisan climate cooperation as well as the role of the private sector in the energy transition. <u>Register here</u>.

#### • Engineering With Nature on DoD Installations

#### 24-25 August 2021

Hosted by the U.S. Army Corps of Engineers (USACE), this virtual meeting (three hours/day) will engage leaders and representatives across DoD and partner organizations on the opportunity to develop and use natural infrastructure and nature-based solutions on DoD installations to support readiness and installation resilience. Workshop registration will close on Friday, August 13<sup>th</sup>. <u>Register here</u>. Information about the USACE Engineering With Nature initiative is available <u>here</u>.

#### DoD Arctic Science & Technology Workshop

16-18 November 2021 Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. For those interested in participating, send contact info to: Dawn.E.Hathaway@usace.army.mil. Note: For a copy of the workshop prospectus and draft agenda, email: kristen.fletcher@nps.edu.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- The Climate Issue: bi-weekly e-newsletter by The Economist The Economist has a bi-weekly electronic newsletter focused specifically on climate change, *The Climate Issue*.
- Brief Report: North Korea, Climate Change and Security

Posted by the Center for Climate and Security, this brief summarizes challenges and findings related to climate impacts in North Korea and subsequent effects. The report, **"Converging Crises in North Korea: Security, Stability and Climate Change"** is the third of a series of case studies that seek to elevate political focus on nuclear-armed or latent nuclear states that could be escalated or exacerbated by impending climate change. Read or download the report <u>here</u>.

• The UN Security Council and Climate Change

This new report on the UN Security Council's work on climate security was published 21 June 2021 and addresses the Council as a venue for climate-security matters, institutional mechanisms established to help address these threats and options for the way forward.

<u>Transmission Makes the Power System Resilient to Extreme Weather</u>

Produced by Grid Strategies, this report discusses the vulnerabilities of power systems to severe weather and promotes increased transmission to increase resilience.

• Increase in frequency of nuclear power outages due to changing climate Published 5 July 2021 in *Nature Energy*, this article focuses on the climate-related changes affecting operating conditions for different types of energy systems, in particular power plants.

#### **OPPORTUNITIES**

• NOAA, Census challenge innovators to build tools for communities to tackle the climate crisis

NOAA has posted a challenge through The Opportunity Project to improve climate resilience planning in communities around the nation by creating tools that enable local decision making and facilitate federal support of local-level priorities. The target audience are municipal, county, tribal, and state decision makers who are responsible for planning and action, especially in underserved communities and climate adaptation/resilience professionals who provide local decision makers with expert guidance and translation services. Hello, Climate & Security Network Members.

Below are climate and security updates for this week. Thanks to those who have shared links, resources and events.

If you are interested in being on the Planning Team, email me: <u>kristen.fletcher@nps.edu</u>. We meet once/month and help focus and grow the network.

Have a great weekend,

Kristen

Kristen M Fletcher Faculty Associate-Research <u>Energy Academic Group</u> <u>NPS Climate & Security Network</u> Naval Postgraduate School <u>kristen.fletcher@nps.edu</u> Office: 831.920.1090 | Cell: 401.714.4686

#### NPS Climate & Security Network Weekly Update: 6 August 2021

#### NEWS

- <u>Autonomous systems to help NATO examine climate change effects in Arctic waters</u> C4ISRNET, 4 August 2021
- **DOD Official Says U.S. Faces Climate Change Crisis** DoD News, 3 August 2021
- <u>The Contours of India's Arctic Policy</u> The Arctic Institute, 3 August 2021
- Ranking energy risks for the net-zero age World 29 July 2021
- <u>The U.S. Military Is a Voracious Gas Guzzler. Now Some Want It to Go Green.</u> Wall Street Journal, 29 July 2021
- <u>Guard Well-Equipped to Handle West Coast Wildfires</u> DoD News, 29 July 2021

- Last ice-covered parts of summertime Arctic Ocean vulnerable to climate change National Science Foundation, 28 July 2021
- Satellite images of wildfires are saving lives. The Pentagon might let the program expire LA Times, 27 July 2021
- <u>5 Ways IUU Fishing Threatens National Security</u> American Security Project, 26 August 2021
- <u>Climate Change has National Security Implications, DOD Official Says</u> DoD News, 26 July 2021
- Killer Heat Waves Warrant FEMA Action Under New Authority Bloomberg Law, 23 July 2021
- <u>Climate Litigation has a Big Evidence Gap</u> Eos: Science News by AGU, 23 July 2021

#### **EVENTS**

• Engineering With Nature on DoD Installations 24-25 August 2021

Hosted by the U.S. Army Corps of Engineers (USACE), this virtual meeting (three hours/day) will engage leaders and representatives across DoD and partner organizations on the opportunity to develop and use natural infrastructure and nature-based solutions on DoD installations to support readiness and installation resilience. Workshop registration will close on Friday, August 13<sup>th</sup>. <u>Register here</u>. Information about the USACE Engineering With Nature initiative is available <u>here</u>.

- Environmental Security Summit
  - 15-16 September 2021

World War E: How the World is Fighting for Environmental Security

The Summit is sponsored by the Environmental Security Working Group (ESWG) and will have an unclassified session on 15 September and a classified session on 16 September. Registration information to be sent early next week.

- <u>Climate Leadership Conference</u>
  - 13-15 October 2021 / New Orleans

Hosted by the Center for Climate and Energy Solutions (C2ES) and The Climate Registry, the conference brings together forward-thinking leaders from business,

government, academia, and the non-profit community to explore energy and climate solutions and opportunities, and to showcase climate leadership. <u>Register here</u>.

#### • DoD Arctic S&T Workshop

16-18 November 2021 Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. For those interested in participating, send contact info to: <u>Dawn.E.Hathaway@usace.army.mil</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

 Wildfire Q&A with Stanford Experts: A Blueprint for Protecting Communities and <u>Restoring a Lower Intensity Fire Regime</u>

California may be headed for another record-breaking wildfire season. In this post, and video, Stanford researchers discuss the shift in federal, state and local approaches to turn the tide of destruction.

<u>The Energy Transition in the Arab Gulf: From Vision to Reality</u>

Released by the Atlantic Council, authors explore the steps that Saudi Arabia and the UAE have taken to further their decarbonization efforts while also offering a clear-eyed view of the challenges that each country faces. Read or download the report <u>here</u>.

• <u>U.S. Opportunities to Address Climate Displacement</u>

The International Refugee Assistance Project issued this report which highlights opportunities for the U.S. government to address climate displacement, identifying and advocating for pathways to safety for climate-displaced people based on existing legal tools and opportunities for developing new pathways. Read and download the report <u>here</u>.

#### • Policy Report: Climate Change and Mobility: An Agenda for the United States

Sponsored by the Newsline Institute for Strategy and Policy, this report makes policy recommendations regarding climate-change driven mobility in relation to human security. Read and download the report <u>here</u>.

• <u>A coupled human-natural system analysis of freshwater security under climate and</u> <u>population change</u>

In this article in the Proceedings of the National Academy of Sciences (PNAS), the authors present a freshwater security analysis for Jordan, enabled by an integrated systems model that combines simulation of Jordan's natural and built water environment with thousands of representative human agents determining water allocation and use decisions.

<u>Satellite imaging reveals increased proportion of population exposed to floods</u>

This article published in Nature on 4 August proposes a global flood database to improve vulnerability assessments, the accuracy of global and local flood models, the efficacy of adaptation interventions and our understanding of the interactions between landcover change, climate and floods.

• <u>Water Security for Climate Resilience Report: A synthesis of research from the</u> <u>Oxford University REACH Programme</u>

This report presents a synthesis of published and ongoing research by REACH which explores the relationship between water security, climate and climate adaptation decisions, drawing on findings from REACH research conducted in Sub-Saharan Africa and South Asia. It demonstrates the unequal impact of climate on water security, and on people's lives and livelihoods, which can be counter-intuitive to broad narratives around resilience and adaptation.

#### 9 August 2021

Dear CSN Colleagues,

# Today, the Intergovernmental Panel on Climate Change released its **Sixth Assessment Report** from Working Group 1, entitled *Climate Change 2021: The Physical Science Basis*.

This is the first volume in a series of four reports that the IPCC will release for the Sixth Assessment. This report evaluates the physical science of climate change – looking at the past, present, and future climate and revealing how human-caused emissions are altering our planet and what that means for the future.

The report, approved by 195 member states including the U.S. prior to its release, sets the stage on the consensus of climate science ahead of the upcoming COP26 in November. Relevant links follow.

Background/Summary Access the Report and Summaries IPCC Press Conference (video; starts ~ 4:50)

USG Responses:

- <u>NOAA</u>
- Department of State
- DoD: I have not seen a DoD response yet; if one is issued, I'll include a link in the regular Friday email.

Analysis/Commentary\*

- <u>UN Secretary-General Response</u>
- <u>Science Media Centre: Expert Reaction</u>
- Lawrence Livermore National Laboratory
- <u>The Economist</u>
- In-Depth Q&A, The Carbon Brief

\*These links are a cross-section of analysis I've seen today. If you see useful analysis, especially through a security lens, please send me the link and I'll include it in the Friday email. I do expect some of our climate & security experts to weigh in this week.

Dear CSN Members,

Below are climate and security updates for this week. Thanks to those who have shared links, resources and events.

Please note the Barrow Fellowship opportunity for NPS Students under "Opportunities."

Have a great weekend,

Kristen

#### NPS Climate & Security Network Weekly Update: 20 August 2021

#### NEWS

- <u>CFC Ban bought us time to fight climate change, say scientists</u> BBC, 18 August 2021
- Why Europe's Militaries should worry about Climate Change Euractiv, 17 Aug 2021
- How water shortages are brewing wars BBC, 16 August 2021
- **Democrats demand Pentagon renew wildfire monitoring program** LA Times, 16 August 2021
- The Taliban now controls one of the world's biggest lithium deposits Quartz, 16 August 2021
- <u>The Hidden Dangers of a Carbon-Neutral Military</u> Foreign Policy, 12 August 2021 *Note: Written by NPS Energy Academic Group faculty Alan Howard and Brenda Shaffer.*
- We Need Climate Action Bigger, Faster, and Sooner to Avoid the Worst Outcomes Outlined in the Latest IPCC Report Environmental and Energy Study Institute, 12 August 2021
- <u>What the UN Climate Report Didn't Say</u> Atlantic Council, 9 August 2021
- <u>Meredith Berger Sworn in as Assistant Secretary of the Navy for Energy</u>, <u>Installations and Environment</u>

Navy Press Release, 5 August 2021

• <u>America's Climate Security Dilemma</u> National Priorities Project, 20 July 2021

#### **EVENTS**

• China and Climate Change Speaker: Dr. Scott Moore, University of Pennsylvania 23 August 2021 / 1200-1330 ET / 0900-1030 PT / via Zoom

Hosted by the Naval War College, this talk is designed to provide an overview of China's climate policy, the factors and strategies that underpin it, and what the implications are for U.S. national interests. It will suggest policies and strategies that can seek to reduce trade-offs and contradictions between climate policy objectives and other U.S. foreign policy goals such as holding Beijing accountable for human rights abuses. Join here. (Meeting ID: 843 9098 9150 / Passcode: 515150)

#### <u>AmeriGEO Week</u>

#### 23-27 August 2021

AmeriGEO Week 2021 aims to identify the synergies and paths toward collaboration among regional efforts related to the integration of Earth Observations, Geographic, Statistical and other information. Thematic topics include Agriculture & Food Security, Disasters, Biodiversity & Indigenous People, SDGs, Health, & Water. <u>Register here</u>.

## • Engineering With Nature on DoD Installations 24-25 August 2021

# Hosted by the U.S. Army Corps of Engineers (USACE), this virtual meeting (three hours/day) will engage leaders and representatives across DoD and partner organizations on the opportunity to develop and use natural infrastructure and nature-based solutions on DoD installations to support readiness and installation resilience. Workshop registration will close on Friday, August 13<sup>th</sup>. <u>Register here</u>. Information about the USACE Engineering With Nature initiative is available <u>here</u>.

#### <u>Current Methods for Life Cycle Analysis of Low-Carbon Transportation Fuels in</u> <u>the U.S.</u>

#### 31 August 2021 / 1 – 2:30 ET / 10 – 11:30 PT

An ad hoc committee of the National Academies of Sciences, Engineering, and Medicine will assess current methods for estimating lifecycle greenhouse gas (GHG) emissions associated with transportation fuels (liquid and non-liquid) for potential use in a national low-carbon fuels program. <u>Go here</u> for registration information.

• <u>Understanding the Societal Challenges Facing Nuclear Power</u> 1 – 3 September 2021 A National Academies study will assess the future of new and advanced nuclear reactor technologies and identify the opportunities and barriers to commercialization. This meeting will feature a 3-day workshop to discuss societal challenges facing nuclear energy, lessons learned from social science, and industry perspectives. <u>Register here</u>.

#### Environmental Security Summit

#### 15-16 September 2021

#### World War E: How the World is Fighting for Environmental Security

The Summit is sponsored by the Environmental Security Working Group (ESWG) and will have an unclassified session on 15 September and a classified session on 16 September. Registration will be held over the <u>All Partners Access Network</u>. Register here.

*Note: Kristen Fletcher serves on the ESWG Leadership Team and is Summit Content Director. Email for additional information: <i>kristen.fletcher@nps.edu*.

#### International Symposium of Military Academies 2021

#### 4 – 8 October 2021

The Symposium theme is *Preparing Military Leaders to Effectively Resolve 21st Century Security Challenges* and includes panels on Environmental Challenges and Security. <u>Register here</u>.

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Hosted by the Center for Climate and Energy Solutions (C2ES) and The Climate Registry, the conference brings together leaders from business, government, academia, and the non-profit community to explore energy and climate solutions and opportunities and to showcase climate leadership. <u>Register here</u>.

#### • DoD Arctic S&T Workshop

16-18 November 2021

Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. For those interested in participating, send contact info to: <u>Dawn.E.Hathaway@usace.army.mil</u>.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- Published by the World Meteorological Organization, the <u>State of the Climate in Latin</u> <u>America and the Caribbean 2020</u> focuses on a set of up-to-date key climate indicators, climate trends, and extreme weather and climate events recorded in 2020 and provides science-based knowledge to inform decision-making in climate change mitigation and adaptation.
- The <u>Regional EV Charging Infrastructure Location Identification Toolkit</u> for the Northeast, Mid-Atlantic, and Southeast states provides resources to support state and

**local government planning** for more equitable and informed investments in electric vehicle (EV) charging infrastructure.

- The IPCC Working Group 1 has an **IPCC WGI Interactive Atlas** for flexible spatial and temporal analyses of much of the observed and projected climate change information underpinning the Working Group 1 contribution to the Sixth Assessment Report.
- The National Academies of Sciences, Engineering and Medicine has released a Consensus Study Report entitled *Investing in Transportation Resilience: A Framework for Choices.*
- Recently published in *Science Advances*, the article entitled <u>The climate and health</u> <u>benefits from intensive building energy efficiency improvements</u> examines the effects of building energy efficiency upgrades in the United States.
- A recent article in *Nature*, **The Montreal Protocol protects the terrestrial carbon sink**, presents data and analysis regarding the control of the production of ozone-depleting substances through the Montreal Protocol and co-benefits for climate change mitigation.

#### **OPPORTUNITIES**

- Applications for the Barrow Fellowship is now open to NPS Students. The Fellowship is offered by the Brute Krulak Center for Innovation and Future Warfare at the Marine Corps University. This year's topic will focus on climate and national security. All Barrow Fellowship events (generally 1/month) are virtual and will occur from 1800-1930 ET / 1500-1630 PT. Potential Topics include:
  - US national security policy and climate change
  - Military and commercial installations impacted by climate change
  - US agencies focused on environmental security
  - Geopolitical competition amongst the Poles, specifically the Arctic
  - Service perspectives on environmental security
  - Allied perspectives environmental security
  - o Adversary perspectives environmental security and resource competition
  - The Future of Amphibious Operations

To apply, send a biography and statement of interest (limit of 400 words) explaining: 1. Why do you want to join this fellowship? 2. Why are you interested in climate security?

#### Submit application materials by 1200 PT on 30 Aug 2021 to:

- Kristen Fletcher, Energy Academic Group / Climate & Security Network: Kristen.fletcher@nps.edu
- Please note Barrow Fellowship Application in subject line.

Dear CSN Members,

Below are climate and security updates for this week. Thanks to those who have shared links, resources and events.

Please note the Barrow Fellowship opportunity for NPS Students under "Opportunities" – applications are due in a few days: Monday (30 August) by 1200 PT.

Also, there are some interesting links of note to Arctic news and resources. I've noted those with an asterisk.

Have a great weekend,

Kristen

#### NPS Climate & Security Network Weekly Update: 27 August 2021

#### NEWS

- <u>Wildfire Warriors</u> DoD News, 25 August 2021
- Shipping firm Maersk spends £1bn on 'carbon neutral' container ships The Guardian, 24 August 2021
- \*Canadian Ice Service Tracking Icebergs in Western Arctic for 1<sup>st</sup> Time CBC News, 23 August 2021
- <u>Heavy rainfall which led to several flooding in Western Europe made more likely by</u> <u>climate change</u> World Weather Attribution, 23 August 2021
- **Billions are pouring into the business of decarbonisation** The Economist, 21 August 2021
- <u>USS Arlington Arrives in Haiti to Support USAID</u> U.S. Southern Command, 21 August 2021
- \*<u>Russian Has Big Plans for Arctic Oil</u> OilPrice.com, 21 August 2021
- \*Rain falls at Greenland ice summit for first time on record Reuters, 21 August 2021

- <u>Water and (in-)Security in Afghanistan as the Taliban Take Over</u> New Security Beat, 20 August 2021
- <u>2d Marine Division Marines and Sailors deploy in Support of Haiti Disaster Relief</u> <u>Operations</u> U.S. Southern Command, 20 August 2021
- California National Guard plans 99-acre solar farm in Los Alamitos LA Times, 20 August 2021
- <u>World's largest energy storage system completes Phase II in Moss Landing</u> Monterey Herald, 19 Aug 2021
- <u>Coastal Commission Oks world's longest fiber optic line that will start in Eureka</u> Times Standard, 18 August 2021
- <u>Can Europe go green without nuclear power?</u> The Economist, 15 August 2021
- Fossil Fuel Companies are Quietly Scoring Big Money for their Preferred Climate Solution: Carbon Capture and Storage Inside Climate News, 17 August 2021
- From a Raft in the Grand Canyon, the West's Shifting Water Woes Come into View Inside Climate News, 8 August 2021

#### **EVENTS**

- Building secure and sustainable critical mineral supply chains: A virtual fireside chat with TechMet founder and CEO Brian Menell
   30 August 2021 / 12:30 1:30 ET / 9:30 10:30 PT
   Hosted by the Atlantic Council, the event will include discussion of Brian Menell's outlook for a sustainable and secure transition metals supply chain in order to meet climate goals. Register here.
- <u>Current Methods for Life Cycle Analysis of Low-Carbon Transportation Fuels in</u> <u>the U.S.</u>

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A National Academies study will assess the future of new and advanced nuclear reactor technologies and identify the opportunities and barriers to commercialization. This meeting will feature a 3-day workshop to discuss societal challenges facing nuclear energy, lessons learned from social science, and industry perspectives. <u>Register here</u>.

2 September 2021 / 1600 – 1700 CET / 1000 – 1100 ET / 0700-0800 PT Hosted by the Clingendael Institute and Planetary Security Initiative, the webinar panel will address options for environmental peacebuilding in the wider Middle East. Panelists include Yana Abu Taleb, Director of EcoPeace Middle East–Jordan; Rene Van Nes, Head of Division of Conflict Prevention and Mediation Support at European External Action Service; Alon Tal, Member of the Knesset; and Dr. Shaddad Attili, Advisor ranking Minister at the Negotiations Support Department - PLO / Former Water Minister. Register here.

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Note: Kristen Fletcher serves on the ESWG Leadership Team and is Summit Content Director. Email for additional information: <u>kristen.fletcher@nps.edu</u>.

#### <u>Climate Week NYC 2021</u>

#### 20-26 September 2021

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#### 23 September 2021 / 5 pm BST / 9 am PT

Join *The Economist*'s Environment editor and Briefings editor for an in-depth conversation on climate change. The panel will probe into the recent findings of the IPCC report, look ahead at the upcoming COP26 negotiations and discuss their expectations of this critical conference. Note: you will need an account on *economist.com*.

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Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. For
those interested in participating, send contact info to:
Dawn.E.Hathaway@usace.army.mil.

#### **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- Information and news for the <u>UN Climate Change Conference of the Parties (COP26)</u> are available online. COP26 will take place in Glasgow (UK) 31 October 12 November 2021 with <u>goals</u> on mitigation, adaptation, finance and collaboration.
- \*The Climate Security Expert Network has published the report <u>Climate-Fragility Risk</u> <u>Brief: The Arctic</u>. The report addresses the environmental change in the region and how opportunities may be undermined by the destabilizing, compounding effects of climate change.
- In the Proceedings of the National Academy of Sciences (PNAS), the research article **Economic Impacts of tipping points in the climate system** synthesizes emerging literature and provides geophysically realistic estimates of the economic impacts of eight climate tipping points with an emphasis on the social cost of carbon.
- The Planetary Security Initiative has released a new policy brief entitled, <u>Mission</u> <u>Probable: the EU's efforts to green security and defence</u>. The brief analyzes the EU's efforts to climate-mainstream its defence and security sectors and discusses the possibilities of European militaries as green innovators, emission reducers and enablers of environmental peacebuilding and disaster assistance. Read or download the report <u>here</u>.
- \*A new issue of <u>PolarPredictNews</u>, the official newsletter for the Year of Polar Prediction (YOPP), is now available, and includes news for and from the polar prediction community.

- **Ebb and Flow, Volume 1: Water, Migration, and Development** is a new book published by the World Bank Group. It presents new global evidence to advance our understanding of how fluctuations in water availability, as induced by rainfall shocks, influence internal migration, and hence regional development.
- Published by the American Meteorological Society, the <u>State of the Climate in 2020</u> presents data compiled by NOAA's National Centers for Environmental Information and is based on contributions from scientists from around the world. It provides a detailed update on global climate indicators, notable weather events, and other data collected by environmental monitoring stations and instruments located on land, water, ice, and in space.
- In July, the EPA released a report entitled <u>An Analysis of Lithium-ion Battery Fires in</u> <u>Waste Management and Recycling</u>. The report provides quantitative & qualitative information on safety and costs risks of LIBs in the commercial waste stream.

#### **OPPORTUNITIES**

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- Please note Barrow Fellowship Application in subject line.

Dear CSN Members,

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If you have feedback on the weekly email – content, format, frequency, etc. - please let me know. I've received feedback to make it a little more succinct which means I likely won't post everything that is sent to me but please do forward things as you see them – it's much appreciated!

Have a great Labor Day weekend,

Kristen

#### NPS Climate & Security Network Weekly Update: 2 September 2021

#### NEWS

- Integrating Conflict Prevention and Climate Change in U.S. Foreign Policy and Development Assistance New Security Beat, 1 September 2021
- The Council on Strategic Risks Selects Erin Sikorsky as New Director of the Center for Climate and Security and John Conger as Senior Advisor Center for Climate & Security, 1 September 2021
- <u>A Monster Storm Tests New Orleans</u> New York Times, 1 September 2021
- Hurricane Ida took out the MyNavy Assignment site Navy Times, 30 August 2021
- <u>Coast Guard, National Guard Forces Begin Rescues and Aid in Response to</u> <u>Hurricane Ida</u> Military News, 30 August 2021
- <u>A New Breed of Crisis: War and Warming Collide in Afghanistan</u> New York Times, 30 August 2021
- <u>HHS Establishes Office of Climate Change and Health Equity</u> U.S. Department of Health & Human Services Press Release, 30 August 2021
- U.S. Forces are Leaving a Toxic Environmental Legacy in Afghanistan

Scientific American, 30 August 2021

- Landmark Arctic Fisheries Agreement Enters into Force The Maritime Executive, 29 August 2021
- <u>ARNORTH to support NIFC in wildland fire ground response operation in</u>
   <u>California</u>

Army North News Feed, 28 August 2021

- **Droughts Push More People to Migrate Than Floods** Circle of Blue, 24 August 2021
- Lack of Water Linked to 10 Percent of the Rise in Global Migration The World Bank, 23 August 2021
- <u>UEIC Joint Leadership Statement</u> University Energy Institute Collaborative, 1 August 2021

#### **EVENTS**

 Article 6 at COP26: Negotiating the future of international climate collaboration 8 September 2021 / 8 – 8:45 am ET / 5 – 5:45 am PT Sponsored by the Atlantic Council Global Energy Center, this webinar will include discussions on COP26, negotiations surrounding Article 6 of the Paris Agreement, and the future of international climate collaboration.

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*Note: Kristen Fletcher serves on the ESWG Leadership Team and is Summit Content Director. Email for additional information: <i>kristen.fletcher@nps.edu*.

#### Climate Conversations: Extreme Weather

#### 15 September 2021 / 3 – 4 PM ET / Noon – 1 PT

Sponsored by the National Academies of Science, Engineering and Medicine, this webinar will address extreme events such as floods, wildfires, storms, and heat waves as a result of climate change. Marshall Shepherd (University of Georgia) will moderate a conversation with Craig Fugate (former FEMA Administrator) and Marissa Aho (Washington State Department of Natural Resources) about the connections between climate change and extreme events, and about how communities and governments at different scales can plan for and become more resilient to the risks from extreme events today and into the future. Register <u>here</u>.

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Hosted by the Center for Climate and Energy Solutions (C2ES) and The Climate Registry, the conference brings together leaders from business, government, academia, and the non-profit community to explore energy and climate solutions and opportunities and to showcase climate leadership. <u>Register here</u>.

# 2021 Regional Conference on Permafrost & 19<sup>th</sup> International Conference on Cold Regions Engineering

#### 24-29 Oct 2021

For the first time, the US Permafrost Association (USPA) and the American Society of Civil Engineers (ASCE) have joined forces to organize the joint 2021 Regional Conference on Permafrost (RCOP) and 19th International Conference on Cold Regions Engineering (ICCRE). RCOPs are convened by the International Permafrost Association (IPA) as part of their motto to "foster permafrost research to the ends of earth".

# • \*DoD Arctic S&T Workshop

16-18 November 2021

Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. For those interested in participating, send contact info to: Dawn.E.Hathaway@usace.army.mil.

# **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- The Environmental Protection Agency has released a study entitled <u>Climate Change and</u> <u>Social Vulnerability in the United States</u>. The report improves understanding of the degree to which four socially vulnerable populations — defined based on income, educational attainment, race and ethnicity, and age — may be more exposed to the highest impacts of climate change. Understanding the comparative risks to vulnerable populations is critical for developing effective and equitable strategies for responding to climate change. Read/download the report <u>here</u>.
- <u>Missing in Action: Responding to Australia's Climate and Security Failure</u> lays out a Climate-Security Risk Action Plan for Australia based on four themes: demonstrating leadership, assessing climate risks, coordination and cooperation across government, and acting and investing with urgency. Read/download the report <u>here</u>.
- The U.S. Department of Energy has released its 2021 edition of the Land-Based Win Market Report which provides an overview of key trends in the U.S. wind power market. Read and download the report <u>here</u>.
- The report <u>China's Climate Cooperation Smokescreen: A Roadmap for Seeing</u> <u>Through the Trap and Countering with Competition</u> was recently published by the Baker Institute for Public Policy at Rice University. The authors note that "China talks green but runs on coal," and suggest leveraging the threat of carbon taxation to incentivize change in the PRC may set a path toward preserving the Earth for future generations. For a video of similar issues on China and Climate Change through the Naval War College, visit <u>here</u>.
- Applied Energy Journal has published the article **Evaluation of extreme weather impacts on utility-scale photovoltaic plant performance in the United States** which reports on analysis of over 800 PV sites in the U.S. for compound, extreme weather impacts and its potential impact on the shift to renewables.
- NASA's Global Modeling and Assimilation Office has launched a <u>Climatology &</u> <u>Anomalies</u> analysis tool that offers a different visualization on climate data including monthly means, climate means, monthly anomalies, and climate standard deviations.
- The Climate Law Blog at the Sabin Center for Climate Change Law recently posted
   Removing Carbon Dioxide Through Ocean Alkalinity Enhancement: Legal
   Challenges and Opportunities. The post describes ocean alkalinity enhancement (OAE) as one of several proposed techniques for removing carbon dioxide from the atmosphere and storing it in the oceans. The white paper analyzes the international and domestic legal frameworks for OAE research and deployment. Read or download the paper here.

- A recent article in *World Development*, <u>Sustaining peace through better resource</u> <u>governance: Three potential mechanisms for environmental peacebuilding</u> theorizes explanations for how environmental cooperation may facilitate processes of sustaining positive peace.
- The Planetary Security Initiative Report, <u>Towards a Better Understanding of Climate</u> <u>Security Practices</u>, reviews and reflects on existing practices in the emerging field of climate security. (published April 2021)
- Information and news for the <u>UN Climate Change Conference of the Parties (COP26)</u> are available online. COP26 will take place in Glasgow (UK) 31 October 12 November 2021 with <u>goals</u> on mitigation, adaptation, finance and collaboration.

Dear CSN Members,

Below are climate and security updates for this week, including some events that occur early next week. Thanks to those supporting this effort who forward links and resources.

May you have a good weekend and may we all honor those lost on 9/11 20 years ago and those still affected today.

Kristen

# NPS Climate & Security Network Weekly Update: 10 September 2021

NEWS

- <u>A Climate Solution Lies Deep Under the Ocean But Accessing it Could have Huge</u> <u>Environmental Costs</u> Time, 10 September 2021
- <u>The Challenges of Climate Change in an Urbanizing World</u> New Security Beat, 8 September 2021
- Next DoD Budget to Feature Detailed 'Investments' To Battle Climate Change: <u>Hicks</u> Breaking Defense, 8 September 2021
- <u>Climate tops list of global threats in EU 'strategic foresight' report</u> Euractiv, 8 September 2021
- **DOD Extends 'Firefly,' Related 'FireGuard' Support to Extinguish Wildfires** DOD News, 8 September 2021
- Nuclear Energy to play key role in Russia's Arctic Development Nuclear Engineering, 7 September 2021
- <u>China's BRI Project Poses significant Threat to Climate Change, Environment:</u> <u>IFFRAS Report</u> RepublicWorld.com, 7 September 2021
- <u>Conflict in the Sahel Likely to Worsen as Climate Change Impacts Increase</u> New Security Beat, 7 September 2021
- <u>New normal? How the Guard is fighting worsening natural disasters amid</u> <u>deployments</u>

Military Times, 2 September 2021

- Army Corps Looks to the Cloud for Flood Modeling Engineering News-Record, 2 September 2021
- Jordan's water crisis deepens as climate changes, population grows Reuters, 2 September 2021
- <u>Re-envisioning the U.S. National Security Strategy in the face of Runaway</u> <u>Population Growth</u> Small Wars Journal, 2 September 2021

#### **EVENTS**

- Human Security and the Maritime Security Index

   September 2021 / 1200 1330 ET / 0900 1030 PT

   Hosted by the Naval War College, Climate & Human Security Studies Group

   Featuring Dr. Curtis Bell, Associate Professor of Maritime Security and Governance,
   former Director of Stable Seas

   Zoom Link / Meeting ID: 858 5524 5570 / Passcode: 491096
- The Great Debates: The Intersection of Climate Change & National Security 14 September 2021 / 2 – 3:30 ET / 11 – 12:30 PT Hosted by Deloitte
- <u>Ticking Clock The Intersection of Climate & Security</u> 14 September 2021 / 1230 ET / 0930 PT Hosted by the Center for Climate and Security and French Institute for International and Strategic Affairs
- <u>Covid, Conflict, and Climate: Food Insecurity Today and the Way Forward</u> 14 September 2021 / 11:00 am ET / 8:00 am PT Hosted by the Stimson Center
- <u>Climate Conversations: Extreme Weather</u> 15 September 2021 / 3 – 4 PM ET / Noon – 1 PT Hosted by the National Academies of Science, Engineering and Medicine
- <u>Climate Week NYC 2021</u> 20-26 September 2021 Hosted annually by the <u>Climate Group</u> in conjunction with the United Nations
- <u>The decisive decade for climate change</u> 23 September 2021 / 5 pm BST / 9 am PT

Hosted by *The Economist* Note: you will need an account on *economist.com*.

- International Symposium of Military Academies 2021
   4 8 October 2021
   Hosted by Norwich University
- <u>Green Shipping: A Sustainability Journey for the U.S.' Largest Ocean Carrier</u> 5 October 2021 / 6 – 7 pm PT Hosted by Center for the Blue Economy, Middlebury Institute of International Studies
- <u>Climate Leadership Conference</u>
   13-15 October 2021 / New Orleans
   Hosted by the Center for Climate and Energy Solutions and The Climate Registry
- <u>2021 Regional Conference on Permafrost & 19<sup>th</sup> International Conference on Cold</u> <u>Regions Engineering</u>
   21 20 2 + 2021

#### 24-29 Oct 2021

Hosted by the US Permafrost Association and the American Society of Civil Engineers

 DoD Arctic S&T Workshop 16-18 November 2021 Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. To participate or inquire, send contact info to: Dawn.E.Hathaway@usace.army.mil.

# **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- Research Paper: CSN Member and NPS Alumnus Dr. Kellen Jones posted his published dissertation, <u>Wildfire-Favorable Offshores Wind Events in California: Global-Scale</u> <u>Climate Teleconnections to Extreme Weather and Potential Subseasonal to Seasonal</u> <u>Predictability</u>. Congratulations, Dr. Jones!
- **Report:** <u>Changes in the Arctic: Background and Issues for Congress</u> Drafted by the Congressional Research Service (updated 7 September 2021)
- Video: <u>Catching Fog</u>

Featured by Architectural Digest, this video may be of interest for water security efforts. The featured researcher, Dan Fernandez at CSUMB, has received DoD funding for his fog water collection research.

• **Report:** <u>Climate Change and Social Vulnerability in the United States</u> Published by the EPA's Office of Atmospheric Programs

- **Podcast:** <u>Climate Change v. Everyone</u> Produced by Defense One Radio, 7 September 2021
- **Report:** <u>Resilience in a Riskier World: The Asia-Pacific Disaster Report 2021</u> Produced by UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific)

### **OPPORTUNITIES**

• <u>Submissions Open for the National Academies Climate Security Roundtable</u> Deadline September 30, 2021

The National Academies will establish a Climate Security Roundtable, to provide support to the Climate Security Advisory Council, which is a joint partnership between the U.S. Intelligence Community and the Federal Science community to better understand and anticipate the ways climate change affects U.S. national security interests. The National Academies is seeking nominations for 15-35 Roundtable members drawn from academia, the private sector, and civil society, as well as government. Nominees should possess or be eligible to obtain a security clearance at the TS/SCI level so that they may participate in discussions of classified data and information. Roundtable members will serve rotating terms with the option for reappointment as determined by the Academies. Self-nominations are welcome. Nominations are also sought for future membership rotations.

Dear CSN Members,

Below are climate and security updates for this week.

I also have the privilege of sharing that **Katelin Wright**, **CSN Member and NPS alumnus**, **has been named a 2021-2022 Climate and Security Advisory Group Fellow** with the Center for Climate and Security. She joins a talented and inspiring group of leaders working in a range of climate security related positions. <u>Read more about Katelin and her colleagues here</u>.

Congratulations, Katelin! We hope to host Katelin in the Spring at a CSN Speaker Series event to hear more about her experiences as a Fellow.

Kristen

# NPS Climate & Security Network Weekly Update: 16 September 2021

# NEWS

- <u>Climate change isn't the only factor in recent disasters: governance and security</u> <u>risk</u> The Hill, 15 September 2021
- How AI can help forecast how much Arctic sea ice will shrink ScienceNews, 14 September 2021
- **Poll finds large percentage fear having children because of climate crisis** The Hill, 14 September 2021
- Climate Change Could Force 216 Million People to Migrate within Their Own Countries by 2050 The World Bank, 13 September 2021
- U.S. Climate Equity Office Debuts, But with a Tiny Budget Scientific American, 13 September 2021
- <u>Major California battery outage highlights energy storage risks</u> E&E News/Energy Wire, 13 September 2021
- **DOE Releases Solar Futures Study Providing the Blueprint for a Zero-Carbon Grid** Department of Energy Release, 8 September 2021
- China is laying climate traps for the United States Foreign Policy, 2 September 2021

### **EVENTS**

- <u>Climate Week NYC 2021</u>
   20-26 September 2021
   Hosted annually by the <u>Climate Group</u> in conjunction with the United Nations
- The decisive decade for climate change
   23 September 2021 / 5 pm BST / 9 am PT Hosted by *The Economist* Note: you will need an account on *economist.com*.
- Leading Oil and Gas into a Net-Zero World 27 September 2021 / 8:30 am ET / 5:30 am PT Hosted by Atlantic Council
- [new] Berlin Climate and Security Conference 2021 September 27, 2021-8 October 2021 Organized by range of organizations from the community of practice
- [new] <u>The Greengrid Security Series IV: Can we build a low carbon but rock solid grid?</u>
   29 September 2021 / 11 12:30 ET / 8 9:30 PT Hosted by Global Resilience Commission
- International Symposium of Military Academies 2021
   4 8 October 2021
   Hosted by Norwich University
- Green Shipping: A Sustainability Journey for the U.S.' Largest Ocean Carrier
   5 October 2021 / 6 7 pm PT
   Hosted by Center for the Blue Economy, Middlebury Institute of International Studies
- <u>Climate Leadership Conference</u>
   13-15 October 2021 / New Orleans
   Hosted by the Center for Climate and Energy Solutions and The Climate Registry
- 2021 Regional Conference on Permafrost & 19<sup>th</sup> International Conference on Cold Regions Engineering 24-29 Oct 2021 Hosted by the US Permafrost Association and the American Society of Civil Engineers
- DoD Arctic S&T Workshop 16-18 November 2021

Hosted by OSD(R&E), this meeting will be in-person in Hanover, NH and virtual. To participate or inquire, send contact info to: <u>Dawn.E.Hathaway@usace.army.mil</u>.

# **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- Video: <u>Article 6 at COP26: Negotiating the future of international climate</u> <u>collaboration</u> Produced by the Atlantic Council
- **Podcast:** <u>Water and Civilization: Resilience and Collapse</u> Produced by Climate One
- Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth The White House, 100-Day Review under EO 14017 With reviews by DoD, and Departments of Commerce, Energy and Health and Human Services
- <u>The Climate-Security Century: Three Climate Hotspots</u> Report by Mark Nevitt
- <u>A "precariously unprepared" Pentagon? Climate security beliefs and decision-</u> <u>making in the U.S. military</u> Paper in *Global Environmental Change*
- Missing in Action: Responding to Australia's Climate and Security Failure Produced by Australian Security Leaders Climate Group
- Financing a Net-Zero Economy: The Consequences of Physical Climate Risk for Banks Produced by Ceres

# **OPPORTUNITIES**

• <u>Submissions Open for the National Academies Climate Security Roundtable</u> Deadline 30 September 2021

The National Academies will establish a Climate Security Roundtable, to provide support to the Climate Security Advisory Council, which is a joint partnership between the U.S. Intelligence Community and the Federal Science community to better understand and anticipate the ways climate change affects U.S. national security interests. The National Academies is seeking nominations for 15-35 Roundtable members drawn from academia, the private sector, and civil society, as well as government. Nominees should possess or be eligible to obtain a security clearance at the TS/SCI level so that they may participate in discussions of classified data and information. Roundtable members will serve rotating terms with the option for reappointment as determined by the Academies. Selfnominations are welcome. Nominations are also sought for future membership rotations.

#### Call for Experts: National Academies Study on Carbon Utilization Infrastructure, • Markets, Research and Development

# **Deadline 25 September 2021**

As requested in the Energy Act of 2020, a new National Academies' study will explore regional and national market opportunities, infrastructure, and research needs to help decisionmakers better understand how carbon utilization can contribute to the nation's decarbonization effort. The National Academies is searching for 15-17 experts to serve on the study committee. The committee will analyze challenges in expanding infrastructure, mitigating environmental impacts, accessing capital, overcoming technical hurdles, and addressing geographic, community and equity issues for carbon utilization. They are looking for a wide variety of diverse perspectives in this study, and in particular request nominations of members of underrepresented communities, women, and people of color. Learn more and submit nominations through the online nomination form.

**EARTH EX** is a cross-sector resilience exercise, with participation from corporate and government sectors, individuals, families, and communities in more than 40 nations. This year's exercise focuses on serious wildfire and flood scenarios. EARTH EX is now live and will be available for play continuously through October 31, 2021. The exercise features multiple "lanes," providing detailed guidance for organizations in many different sectors. The **Black Sky Exercise Series** is this opportunity. The Black Sky Exercise Series is a set of online exercises designed to present an opportunity for participants to test their plans, policies, and procedures against one of six Black Sky Scenarios.

#### Dear CSN Members,

Below are climate and security updates for this week, including a special section on the UN Security Council Open Debate on Climate and Security that occurred on Thursday.

I also have the privilege of sharing that the following NPS Students have been selected as Barrow Fellows for 2021-2022:

### LTJG Kionna Myles, Medical Service Corps, USN

Graduate School of Defense Management

#### Captain Joe Yanuzzi, U.S. Marine Corps

National Security Affairs, Foreign Area Officer-Africa

#### LT Natalia Widulinski, USN

Natalia graduates on 24 September with a Master of Arts in Security Studies. Her next command is DLI. Congratulations, Natalia!

Congratulations to these accomplished students! The topic this year is Climate and Security. We will host them in the Spring at a CSN Speaker Series event to hear about their experiences as Barrow Fellows.

Kristen

# NPS Climate & Security Network Weekly Update: 23 September 2021

#### **Special Resource Section:**

UN Security Council Open Debate on Climate and Security, 23 September 2021

- Video of the debate
- <u>UN Security Council Concept Note</u>
- <u>Security Council Report September article on Climate Change and Security</u>
- <u>September 22 State Department Briefing Statement</u>

#### NEWS

- <u>Blinken says climate change worsening conflicts around the world</u> The Hill, 23 September 2021
- Leaders to UN: A warmer world is a more violent one, too AP News, 23 September 2021
- <u>Climate change implications and water security</u> The Sentinel, 23 September 2021

- Biden announces a new Science Advisory Panel for Pandemics, Climate Change and other issues NY Times, 22 September 2021
- <u>Climate Crisis Exacerbates Military Legacy Contamination</u> New Security Beat, 21 September 2021
- U.S. solar companies warn that proposed tariffs would devastate new projects Reuters, 21 September 2021
- Investors are whipping up an irrational frenzy in the long-duration energy storage sector Canary Media, 21 September 2021
- As it approaches its yearly minimum, Arctic sea ice extent is slightly greater than recent ultra-low years Nunatsiaq News, 20 September 2021
- <u>The EU's Draft Report on the Arctic: Cooperation over competition?</u> European Leadership Network, 20 September 2021
- <u>Twin Threats: Climate migrants said to face greater risk of modern slavery</u> Thomson Reuters Foundation News, 20 September 2021
- <u>Hicks says DoD to Link Strategy, Capabilities to Meet China Challenge</u> DoD News, 8 September 2021

# **EVENTS**

- Leading Oil and Gas into a Net-Zero World 27 September 2021 / 8:30 am ET / 5:30 am PT Hosted by Atlantic Council
- Berlin Climate and Security Conference 2021
   17 September 8 October 2021
   Organized by range of organizations from the community of practice
- [new] Ask a Weather Modeler
   28 September 2021 / 1000 1130 am CT / 0800-0930 PT Hosted by the 16<sup>th</sup> Weather Squadron
   <u>Via Zoom</u> / Meeting ID: 160 836 3381; Passcode: 208585
- <u>The Greengrid Security Series IV: Can we build a low carbon but rock solid grid?</u>
   29 September 2021 / 11 12:30 ET / 8 9:30 PT

Hosted by Global Resilience Commission

- International Symposium of Military Academies 2021
   4 8 October 2021
   Hosted by Norwich University
- <u>Green Shipping: A Sustainability Journey for the U.S.' Largest Ocean Carrier</u> 5 October 2021 / 6 – 7 pm PT Hosted by Center for the Blue Economy, Middlebury Institute of International Studies
- **[new]** The **Environmental and Energy Study Institute** has a series of briefings leading up to COP26 including:
  - Creating Policies, Coalitions & Actions for Global Sustainable Development (8 Oct)
  - Momentum on Climate Adaptation (15 Oct)
  - The Role of International Finance (20 Oct)
  - The Negotiations: What's on the Table (22 Oct)
- <u>Climate Leadership Conference</u>
   13-15 October 2021 / New Orleans
   Hosted by the Center for Climate and Energy Solutions and The Climate Registry
- <u>2021 Regional Conference on Permafrost & 19<sup>th</sup> International Conference on Cold</u> <u>Regions Engineering</u> 24-29 Oct 2021

Hosted by the US Permafrost Association and the American Society of Civil Engineers

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# **REPORTS, PUBLICATIONS & OTHER RESOURCES**

- **Post:** <u>Deepening UN Action on Climate Security</u> Center for Climate and Security, 22 September 2021
- **Report:** Drought in the U.S.: Science, Policy and Selected Federal Authorities Produced by the Congressional Research Service, 16 September 2021
- Report: <u>Fire Weather: Heat, dryness and wind are driving wildfires in the Western</u> <u>U.S.</u>

Produced by Climate Central, 25 August 2021

- Paper: <u>Violent conflict exacerbated drought-related food insecurity between 2009</u> <u>and 2019 in sub-Saharan Africa</u> In *Nature Food*, 12 August 2021
- Report: <u>NOAA Drought Task Force Report on the 2020-2021 Southwestern U.S.</u> <u>Drought</u> Produced by NIDIS, NOAA and MAP
- Paper: <u>Climate Change Mitigation Potential of Wind Energy</u> In *Climate*, 28 August 2021
- Post: <u>The U.S. Can Achieve Climate Commitments with All of Society Strategy</u> World Resources Institute, 20 September 2021

# **OPPORTUNITIES**

• [new] DARPA Opportunity: AI-Assisted Climate Tipping-point Modeling (ACTM) Proposals due 14 October 2021

This AIE effort aims to explore AI-assisted modeling of complex processes related to climate. The goals of this effort are to: 1) Explore the use of third wave AI methods to enhance models of complex interconnected processes and 2) Develop methods to assimilate diverse data into models and estimate the "value of new data" to enhance confidence in target-specific forecasts relative to state-of-the-art (SOTA) techniques.

• <u>Submissions Open for the National Academies Climate Security Roundtable</u> Deadline 30 September 2021

The National Academies will establish a Climate Security Roundtable, to provide support to the Climate Security Advisory Council. Self-nominations are welcome. Nominations are also sought for future membership rotations.