

Agenda

Monday, July 29

2:00 PM Registration/Initial Icebreaker

3:00 PM **Welcome, Introductions, and Expectations:** Matthew Huber, Purdue University; Marthie Grobler, CSIRO; Rossitza Homan, Sandia National Laboratories; James Appathurai, NATO Deputy Assistant Secretary General; Julie Brewer, Deputy Under Secretary, U.S. DHS S&T

3:45 PM **Setting the Scene:** *Laying out the landscape of the CPSICC NEXUS through 2050* — David Johnson, Purdue University

4:00 PM **Plenary Talk:** *Emerging security challenges*
DHS strategic line of effort — David Alexander, U.S. DHS S&T
NATO strategic line of effort — Eyüp Turmuş, NATO SPS Programme

5:00 PM Adjourn

Tuesday, July 30

8:00 AM Registration and Light Breakfast

8:30 AM **Introduction/Initial Exhortation:** Matthew Huber, Purdue University

9:00 AM **Talk:** *Future climate change and insights into the implications for energy, communities, and economies* — Richard Matear, CSIRO

9:35 AM **Talk:** *The first European Climate Risk Assessment: How to support policy prioritisation in a complex risk and political context* — Hans-Martin Füssel, European Environment Agency

10:10 AM Coffee Break

10:30 AM **Talk:** *Compound and cascading climate hazards and their impacts on critical infrastructure systems* — Amir AghaKouchak, University of California Irvine

11:05 AM **Talk:** *Cybersecurity and climate change nexus: Applying risk-based approaches to ensure resilience and critical mission assurance of cyber-physical systems* — Piret Pernik, NATO Cooperative Cyber Defence Centre of Excellence

11:35 AM **Talk:** *Extreme weather trends against datacenters and cryptocurrency functionality* — Sunny Wescott, U.S. DHS

12:00 PM **Networking Lunch** (food will be provided)

1:00 PM **Short Talks**

Not breaking the bank: Where climate technology could maintain financial system stability — Nick Heavens, Viridien

The challenge of adaptation seen through the lens of complexity — Giovanni Fusina, Defence Research and Development, Canada

Policy response to climate and the role of community representatives — David Kaufman, CNA

National critical infrastructures: The need for addressing cascading effects and cross-sector governance — Jonas Johansson, Lund University

Climate change, security, and misinformation — Tom Ellison, Center for Climate and Security

Beyond the trend: The superposed impacts of climate change and variability on cyberinfrastructure — Christina Karamperidou, University of Hawai'i at Mānoa

Stress testing in the context of supply-chain resilience and financial-sector resilience — Mark Flood, University of Maryland

Improving global security, deterrence and defense: Cyber-physical-social systems and climate change nexus perspectives — Rossitza Homan, Sandia National Laboratories

Agenda

Tuesday, July 30—continued

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- 2:45 PM** **Panel Discussion with Presenters** and including Igor Linkov, U.S. Army Engineer Research and Development Center, and Lilian Alessa, University of Idaho
Facilitator: Marthie Grobler, CSIRO
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- 3:15 PM** **Coffee Break**
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- 3:30 PM** **Talk:** *Climate security and integrated deterrence* — Rob Leland, Sandia National Laboratories
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- 4:00 PM** **Talk:** *Risks and opportunities for cybersecurity posed by quantum technology* — Marcin Niemiec, AGH University of Science and Technology Stanisław Staszic in Krakow
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- 4:30 PM** **Introduction to Smart Games and CPSICC Gameplay:** David Johnson, Purdue University
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- 5:00 PM** **Evening Mixer, Lightning Talks** (food will be provided)
Joel Rasmus, Purdue University
Stacey Connaughton, Purdue University
Ben Bonin, Sandia National Laboratories
Igor Linkov, U.S. Army Engineer Research and Development Center
Anjali Bamzai, NSF GEO
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- 7:00 PM** **Adjourn**

Wednesday, July 31

Morning Session

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- 8:00 AM** **Registration and Light Breakfast**
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- 8:30 AM** **Introductory Talk:** *From threat multiplier to opportunity multiplier in climate security and infrastructure resilience* — Sherri Goodman, Wilson Center
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- 9:00 AM** **Setup and Scenario Building**
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- 9:30 AM** **Gameplay**
1) Near term to 2030
2) Scenario role play 1
3) Scenario role play 2
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- 12:00 PM** **Lunch with Game Groups** (food will be provided)

Afternoon Session

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- 1:00 PM** **Gameplay**
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- 2:30 PM** **Coffee Break**
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- 2:45 PM** **Short Talk:** *Science of Analytical Gaming* —Lynn Yang, Sandia National Laboratories
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- 3:00 PM** **Summary of Game Results and Report Out**

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3:45 PM Short Talks

Modeling human dynamics for critical infrastructure resilience — Budhendra (Budhu) Bhaduri, Oak Ridge National Laboratory

Is cybersecurity turning up the heat on climate change? — Helge Janicke, Cyber Security Cooperative Research Centre, Australia

Human-centered cyber security — Giovanni Russello, Auckland University

Climate risks, uncertainties, and economic opportunities — Gernot Wagner, Columbia Business School

Three worldviews for complex systems — Thushara Gunda, Sandia National Laboratories

5:00 PM Break

6:00 PM Banquet with TED-style Talks (food will be provided)

Lilian Alessa, University of Idaho

Emerging climate risks: An inconvenient truth — Malcolm Mistry, Ca' Foscari University of Venice, Italy and Environment & Health Modelling Lab, The London School of Hygiene & Tropical Medicine, UK

Swathi Veeravalli, National Security Council

Robert Kopp, Rutgers University

Honor Sangster, UK Ministry of Defence

Waste heat as a neglected problem and energy treasure — Fero Simančík, Slovak Academy of Sciences

Climate Risks to Critical Infrastructure — Matteo Gerlini, University of Siena

9:00 PM Adjourn

Thursday, August 1

Morning Session

8:00 AM Registration and Light Breakfast

8:30 AM Setup and Scenario Building

9:00 AM Gameplay

11:00 AM Summary Discussion

12:00 PM Lunch with Game Groups (food will be provided)

Afternoon Session

1:00 PM Group Work, SWOT Analysis, Next Steps, and Identifying Research Gaps

4:00 PM Closing Remarks

5:00 PM Adjourn