

Title: Preparing for the global impact of space weather

Abstract: Space weather events have the potential to negatively affect infrastructure systems that are key to social and economic well-being. An extreme space weather event could cause wide-area disruption, degradation, or damage to systems that include the global positioning system (GPS), telecommunications, and the electric power grid. Damage or prolonged disruption to any of these systems could cascade throughout the economy, causing interruption to many other service sectors, e.g., transportation. The evolving risk of space weather to modern societies and competing priorities, in part, makes it challenging to build national preparedness. The Federal government is the single largest funder of science and technology research in the United States. Policy decisions on which topics are prioritized are complex and based on many factors. This is particularly the case when it comes to preparing for hazards, as most modern-day hazards and emergency responses will have a significant science or technology component. This talk will use space weather events as a case study for science informing policy and policy informing science toward space weather preparedness across the globe.

Speaker Bio:

Dr. Seth Jonas is a researcher at the IDA Science and Technology Policy Institute (STPI). STPI is a congressionally chartered, federally funded research and development center that supports the White House Office of Science and Technology Policy and other executive departments and agencies. Dr. Jonas has experience in policy analysis, strategy and metric development, program evaluation, and quantitative analysis across a broad range of topics. Select areas of study include space weather, hazard preparedness, infrastructure security and resilience, federal government continuity programs, national security, and emergency preparedness communications. He is a 2017 US-UK Fulbright Scholar and is a member of the board of trustees for the Astronaut Scholarship Foundation.

Dr. Jonas has held fellowships at Los Alamos National Laboratory, Brookhaven National Laboratory, and with the JASON scientific advisory group for US national security. He holds an MA and a PhD in physics from Johns Hopkins University, and two BS degrees from the University of Central Florida in physics and liberal science studies (math and chemistry).