



2025 Space Weather Workshop Agenda

Theme: *Guiding the Future: Integrating Heliophysics Insights and User Needs*

Times in MDT

Monday, March 17 - Pre-Workshop Events

- 9:00 AM – 12:00 PM** **R2O2R**
Location: Pearl St. Ballroom LEFT “Walnut” and CENTER “Mall”
- 10:00 AM - 12:00 PM** **CGMS-ISES Coordination Meeting (by invitation only)**
Location: “Foothills” Meeting Room
- 11:00 AM – 12:00 PM** **[NSF NCAR's Earth System Predictability Across Timescales \(ESPAT\) Initiative: Collaborate with us on Advancing Space Weather Predictability](#)**
Location: Pearl St. Ballroom RIGHT “East-West”
- 1:00 PM - 3:00 PM** **DoD Space Weather Enterprise (by invitation only)**
Location: Pearl St. Ballroom RIGHT “East-West”
- 1:00 PM - 5:00 PM** **ISES Annual Meeting (by invitation only)**
Location: Location: “Foothills” Meeting Room
- 1:00 PM - 5:00 PM** **[NOAA Space Weather Scales](#)**
Location: Pearl St. Ballroom LEFT “Walnut” and CENTER “Mall”
- 3:00 PM - 5:00 PM** **Student Program (for students and invited participants)**
Location: “Royal Arch” Meeting Room
- 5:30 PM - 7:30 PM** **Networking Session for Registered Space Weather Workshop Participants**
Location: [NCAR Mesa Lab](#) – Limited round-trip transportation between Embassy Suites and Mesa Lab will be provided on a first come/first serve basis.

Tuesday, March 18

Location: Pearl St. Ballroom

- 8:30 AM - 8:45 AM** **[Opening Remarks and Welcome](#)**
Clinton Wallace, NOAA Space Weather Prediction Center (SWPC)
Howard Singer, NOAA SWPC

- 8:45 AM - 9:00 AM** [Space Weather Events and Impacts - Year in Review](#)
Sara Housseal, USAF 557th Weather Wing, 2d Weather Squadron (557
WW/2 WS)
John Ross (557 WW/2WS)
Shawn Dahl, NOAA SWPC
- 9:00 AM - 9:45 AM** [Heliophysics Decadal Survey: Building on Past Accomplishments and Setting
Future Priorities](#)
Co-Chairs: Howard Singer, NOAA SWPC
Linda Parker, Space Weather Solutions
- 9:00 AM - 9:05 AM** **Session Overview and Introductions**
Howard Singer, NOAA SWPC
- 9:05 AM - 9:15 AM** [Charting the Future: An Overview of the National Academy of Sciences \(NAS\)
Heliophysics Decadal Survey](#)
Robyn Millan, Dartmouth College
Stephen Fuselier, Southwest Research Institute (SwRI)
- 9:15 AM - 9:25 AM** [Decadal Survey: Panel on Space Weather Science and Applications](#)
Christina Cohen, California Institute of Technology
Paul O'Brien, The Aerospace Corporation
- 9:25 AM - 9:35 AM** [Decadal Survey: Panel on the State of the Profession: A Vision for a People-
Centered Solar and Space Physics \(Heliophysics\) Community](#)
Mark Moldwin, University of Michigan
- 9:35 AM - 9:45 AM** **Panel & Audience Discussion**
- 9:45 AM - 9:55 AM** [Special Presentation: Release of User Engagement Report on NOAA Space
Weather Scales Revision](#)
Asha Balakrishnan, Science and Technology Policy Institute (STPI)
Kate Ross, STPI
- 9:55 AM - 10:45 AM** **Break and Poster Session: Solar and Interplanetary Research and Applications**
- 10:45 AM - 11:00 AM** [Special Presentation: Space Weather Advisory Group \(SWAG\) Results of the
First National Survey of User Needs for Space Weather](#)
Tammy Dickinson, Science Matters Consulting
- 11:00 AM - 12:05 AM** [Building Resilience: Agency and Industry Approaches to Space Weather Policy
Implementation](#)
Co-Chairs: Tammy Dickinson, Science Matters Consulting
Janet Green, The Aerospace Corporation
- 11:00 AM - 11:05 AM** [Session Overview and Introductions](#)
Tammy Dickinson, Science Matters Consulting
- 11:05 AM - 11:15 AM** [Addressing the Space Weather Advisory Group's User Needs and Decadal
Survey: NWS Response and Actions](#)
Ken Graham, National Weather Service (NWS)

- 11:15 AM - 11:25 AM** [Enhancing Space Weather Observations: NESDIS' Approach to User Needs and the Decadal Survey](#)
Richard Ullman, Office of Space Weather Observations (SWO), NOAA National Environmental Satellite, Data, and Information Service (NESDIS)
- 11:25 AM - 11:35 AM** [Advancing Space Weather Understanding: NASA Commitment to Implement User Needs and the Decadal Survey](#)
Joe Westlake, NASA Heliophysics Division, NASA HQ
- 11:35 AM - 11:45 AM** [Advancing Commercial Space Weather Capabilities: Industry's Response to the User Needs Document and the Decadal Survey](#)
Geoff Crowley, American Commercial Space Weather Association (ACSWA)
- 11:45 AM - 12:05 AM** **Panel & Audience Discussion**
- 12:05 PM - 1:30 PM** **Lunch**
- 1:30 PM - 2:30 PM** [Space Weather Storms and Their Impact on LEO Satellites: Protection, Preparedness, and Response](#)
Co-Chairs: Delores Knipp, University of Colorado, Boulder
Tzu-Wei Fang, NOAA SWPC
- 1:30 PM - 1:35 PM** [Overview and Introductions](#)
Delores Knipp, University of Colorado, Boulder (CU)
- 1:35 PM - 1:43 PM** [Importance of Solar Cycle Prediction During Spacecraft Design](#)
Scott Shambaugh, Leonid Space
- 1:43 PM - 1:51 PM** [Space Weather Impacts on Satellite Conjunction Assessment and Space Safety](#)
William Parker, Massachusetts Institute of Technology
- 1:51 PM - 1:59 PM** [The UK National Space Operation Centre's Civil Space Protection Service](#)
Harneet Kaur Sangha, UK Space Agency
- 1:59 PM - 2:07 PM** [Space Domain Awareness in an Enhanced Drag Environment](#)
Vishal Ray, Kayhan Space
- 2:07 PM - 2:15 PM** [Next-Generation Probabilistic Drag Modeling Framework](#)
Piyush Mehta, West Virginia University
- 2:15 PM - 2:30 PM** **Panel & Audience Discussion**
- 2:30 PM - 2:45 PM** [Special Presentation: The Essential Roles of Space Weather Prediction in Spacecraft Design, Mission Planning, and Operational Safety](#)
Dan Oltrogge, Commercial Space Operations Center (COMSPOC)

- 2:45 PM - 3:15 PM** **Poster Lightning Talks: Solar and Interplanetary Research and Applications**
 Chair: Jordan Guerra, CU CIRES
- [Statistical Methods for Solar Cycle Forecasting: Application to Solar Cycle 25](#)
 Daniel Brandt, Michigan Technological University
- [The Mars Space Weather Collaboration](#)
 Phillip Chamberlin, CU Laboratory for Atmospheric and Space Physics (LASP)
- [Coronal Observations at Mauna Loa Solar Observatory \(MLSO\) and Their Relevance for Space Weather Research](#)
 Giuliana de Toma, NCAR High Altitude Observatory (HAO)
- [Improved GONG Far Side Helioseismic Maps – A Crucial Data Set for Space Weather Forecasting Models](#)
 Kiran Jain, National Solar Observatory (NSO)
- [Space Weather Follow On: Release of CCOR-1 Imagery and Readiness for the SWFO-L1 Launch](#)
 Dimitrios Vassiliadis, NOAA NESDIS SWO
 (Presented by Nathan Miles, CU CIRES)
- [Assessing the Impacts of Magnetogram Projection Effects on Solar Flare Forecasting and Extending the SWAN-SF Dataset](#)
 Griffin Goodwin, Georgia State University
- [From Research to Operations: The Success of H3lioViz in Space Weather Visualization](#)
 Greg Lucas, CU LASP/Space Weather Technology, Research, and Education Center (SWxTREC)
- 3:15 PM - 4:00 PM** **Break and Poster Session: Solar and Interplanetary Research and Applications**
- 4:00 PM - 5:00 PM** [Navigating the Future: Space Weather Strategies for Medium Earth Orbit \(MEO\), Geosynchronous Orbit \(GEO\), and Beyond](#)
 Co-Chairs: Jamie Favors, NASA HQ
 Juan Rodriguez, CU CIRES
- 4:00 PM - 4:05 PM** **Overview and Introductions**
 Jamie Favors, NASA HQ
- 4:05 PM - 4:13 PM** [How Maxar/Power and Propulsion Element \(PPE\) Supports Space Science](#)
 Casey Keys, Maxar Space Systems
- 4:13 PM - 4:21 PM** [JEDI \(Joint EUV Coronal Diagnostic Investigation\) and the Vigil Mission at L5](#)
 Donald M. Hassler, SwRI
- 4:21 PM - 4:29 PM** [NESDIS SWO Strategies](#)
 Irfan Azeem, NOAA NESDIS Office of Space Weather Observations (SWO)
- 4:29 PM - 4:37 PM** [NASA Space Weather Program’s Exploration Perspective](#)
 Sabrina Savage, Heliophysics Science Division, NASA
- 4:37 PM - 4:45 PM** [Exploring the May 20, 2024 Mars Radiation Storm](#)
 Gina A. DiBraccio, Heliophysics Science Division, NASA
- 4:45 PM - 5:00 PM** **Panel & Audience Discussion**

- 5:00 PM - 5:15 PM** [Special Presentation: Polarimeter to Unify the Corona and Heliosphere \(PUNCH\)](#)
Craig DeForest, SwRI
- 5:15 PM - 5:45 PM** **Poster Lightning Talks: Ionosphere and Thermosphere Research and Applications and Aviation Radiation Research and Applications**
Chair: Astrid Maute, CU CIRES
- [The Impact of Polar Cap Patches on Over-The-Horizon Radar Systems](#)
Katarzyna Beser, New Jersey Institute of Technology
- [Remote Sensing of the Ionosphere from the Central Pacific](#)
Arianna Corry, University of Hawai'i at Mānoa
- [ScintPi: Advancing Ground-based Observational Capabilities for Space Weather Monitoring and Studies](#)
Josemaria Gomez Socola, W.B. Hanson Center for Space Studies, University of Texas at Dallas
- [Gravity Wave Zoo: Engaging Citizen Science to Analyze Atmospheric Gravity Wave Activity over Poker Flat, Alaska](#)
Tyler Karasinski, Arizona State University
- [Low Earth Orbit Challenges During the 10-14 May 2024 'Gannon' Storm](#)
Delores Knipp, University of Colorado, Boulder
- [Neutral Density and Satellite Drag Forecast Using Data Assimilative Models](#)
Marcin Pilinski, CU LASP
- [Forecasting SEP Atmospheric and Space Radiation by Coupling UMASEP and NAIRAS Models](#)
Christopher Mertens, NASA Langley Research Center

Wednesday, March 19 Location: Pearl St. Ballroom

- 8:15 AM - 8:30 AM** [Today's Space Weather Forecast + Q&A](#)
Shawn Dahl, NOAA SWPC
- 8:30 AM - 10:00 AM** **Beyond the Aurora: Safeguarding the Power Grid during the May 2024/Gannon Storm**
Co-Chairs: Mark Olson, North American Electric Reliability Corporation (NERC)
Chris Balch, CU CIRES
- 8:30 AM - 8:35 AM** [Tribute to Jenn Gannon](#)
Jinni Meehan, NOAA NWS
- 8:35 AM - 8:45 AM** [NERC Perspective and Session Overview and Introductions](#)
Mark Olson, NERC
- 8:45 AM - 9:05 AM** [Geomagnetically Induced Current Research in New Zealand: R2O by Solar Tsunamis Team and The Gannon Storm Response](#)
Craig Rodger, University of Otago
Andrew Renton, Transpower New Zealand

- 9:05 AM - 9:15 AM** [Solar Wind Input and its Effect on Geomagnetic Disturbance \(GMD\) Forecasting](#)
Pauline Dredger, University of Michigan
- 9:15 AM - 9:25 AM** [Current State of Geomagnetic Disturbance \(GMD\) and Geomagnetically Induced Current \(GIC\) Modeling: An Overview of Magnetohydrodynamics \(MHD\) and Machine Learning \(ML\) Efforts](#)
Banafsheh Ferdousi, Air Force Research Laboratory (AFRL)
- 9:25 AM - 9:35 AM** [Geoelectric Field Model](#)
Chris Balch, CU CIRES
- 9:35 AM - 10:00 AM** **Panel & Audience Discussion**
- 10:00 AM - 10:15 AM** [Special Presentation: Gauging National Preparedness for Space Weather Events – Findings from the May 2024 Tabletop Exercise](#)
Ian Cohen, Johns Hopkins University Applied Physics Laboratory (APL)
- 10:15 AM - 11:00 AM** **Break and Poster Session: Ionosphere and Thermosphere Research and Applications and Aviation Radiation Research and Applications and Geospace/Magnetosphere Research and Application**
- 11:00 AM - 12:10 PM** [Space Weather Support for Artemis and Human Space Flight](#)
Co-chairs: Kent Tobiska, Space Environment Technologies
Mike Bettwy, NOAA SWPC
- 11:00 AM - 11:05 AM** **Overview and Introductions**
Kent Tobiska, Space Environment Technologies
- 11:05 AM - 11:15 AM** [Space Radiation and Analysis Group \(SRAG\)](#)
Steve Johnson, NASA SRAG
- 11:15 AM - 11:25 AM** [Moon-to-Mars Space Weather Analysis Office \(M2M SWAO\)](#)
Teresa Nieves-Chinchilla, NASA Goddard Space Flight Center
- 11:25 AM - 11:35 AM** [SWO Observations in Support of Space Exploration](#)
Yaireska “Yari” Collado-Vega, NOAA NESDIS SWO
- 11:35 AM - 11:45 AM** [SWPC Support for Human Space Flight](#)
Hazel Bain, CU CIRES
- 11:45 AM - 11:55 AM** [Space Weather and Artemis: the View from a Spaceship Developer](#)
Rob Chambers, Lockheed Martin
- 11:55 AM - 12:10 PM** **Panel & Audience Discussion**

- 12:10 PM - 1:30 PM** **Lunch and Other Activities:**
Student Program (for students and invited participants)
Location: “Royal Arch” Meeting Room
Organizers: Bhagyashree Waghule, University of Colorado
Kathryn Wilbanks, University of Michigan
- 1:30 PM - 2:45 PM** **Understanding and Mitigating Space Weather Impacts on Aviation**
Co-Chairs: Hazel Bain, CU CIRES
Kim Moreland, CU CIRES
- 1:30 PM - 1:35 PM** **Overview and Introductions**
Hazel Bain, CU CIRES
- 1:35 PM - 1:45 PM** **Ensuring Aviation Safety: The UK's Efforts to Prepare for Space Weather Impacts**
Simon Machin, UK Met Office
- 1:45 PM - 1:55 PM** **Allied Pilots Association (APA) and American Airlines (AA)**
Rondeau Flynn, APA/AA Space Weather Team
- 1:55 PM - 2:05 PM** **UK Radiation Measurements in Flight**
Ben Clewer, University of Surrey
- 2:05 PM - 2:15 PM** **Release of NOAA GOES Alpha Particle and Heavy Ion Data**
Juan Rodriguez, CU CIRES
- 2:15 PM - 2:25 PM** **A Novel Method to Define Space Weather Impacts to Aviation Using Real Time REACH (Responsive Environmental Assessment Commercial Hosting) Data**
Janet Green, The Aerospace Corporation
- 2:25 PM - 2:45 PM** **Panel & Audience Discussion**
- 2:45 PM - 3:40 PM** **Break and Poster Session: Ionosphere and Thermosphere Research and Applications and Aviation Radiation Research and Applications and Geospace/Magnetosphere Research and Application**
- 3:40 PM - 4:45 PM** **The 2024 Space Weather User Needs - Other Sectors**
Co-Chairs: Holly Gilbert, National Center for Atmospheric Research (NCAR)
Rob Steenburgh, NOAA SWPC
- 3:40 PM - 3:45 PM** **Overview and Introductions**
Rob Steenburgh, NOAA SWPC
- 3:45 PM - 3:55 PM** **US Department of Defense (DoD) Arctic Space Weather Considerations**
Jerry Sanders, U.S. Space Force (USSF)
- 3:55 PM - 4:05 PM** **Precision Agriculture**
Terry Griffin, Kansas State University
- 4:05 PM - 4:15 PM** **GNSS Integration Throughout Society**
Rebecca Bishop, The Aerospace Corporation

- 4:15 PM - 4:25 PM** [Local Emergency Management](#)
Essi Ellis, Amentum/DOE
- 4:25 PM - 4:45 PM** **Panel & Audience Discussion**
- 4:45 PM - 5:00 PM** **Special Presentation: Unveiling Space Weather Mysteries through Total Solar Eclipses**
Shadia Habbal, University of Hawai‘i
- 5:00 PM - 5:30 PM** **Poster Lightning Talks: Geospace/Magnetosphere Research and Applications and Space Weather Policy and General Space Weather Contributions**
Chair: Anthony Rasca, CU CIRES
- [Space Weather Timeline Viewer - Application to 2024's Active Space Weather Events](#)
Eelco Doornbos, Royal Netherlands Meteorological Institute (KNMI)
- [Regional and Seasonal Effects of Geomagnetic Storms on Terrestrial Weather](#)
Joachim Raeder, Space Science Center, University of New Hampshire
- [Spectrographic Imagers for Space Weather Applications](#)
Thomas J. Immel, University of California, Berkeley
- [Space Weather Information and Aurora Chasers](#)
Tanya Melnik, Millersville University
- [Analysis of OMNI High-Speed Stream and Coronal Mass Ejection Propagation Reliability to Earth's Bow Shock](#)
Espen Fredrick, University of Texas at Arlington
- [Social Implementation of Space Weather Forecasting in NICT for Promotion of Private Sector Use](#)
Naoto Nishizuka, National Institute of Information and Communications Technology (NICT), Japan
- [Evaluating Geomagnetically Induced Current \(GIC\)-related Measurements and Model Predictions from the May 2024 Gannon Storm](#)
Lucy Wilkerson, George Mason University
- [Formulation of NOAA's Space Weather Next Program](#)
Erin Lynch, NOAA NESDIS SWO
- 7:00 PM - 9:00 PM** **Banquet and After-dinner Presentation:**
Charting New Frontiers: NASA's Parker Solar Probe Reaches Historic Milestone in Solar Exploration
Nour Rawafi, Johns Hopkins University Applied Physics Laboratory

Thursday, March 20 Location: Pearl St. Ballroom

8:30 AM - 9:45 AM **Observing, Modeling and Forecasting the Ionosphere: Supporting Communications and Navigation**
Co-Chairs: Rebecca Bishop, The Aerospace Corporation
Tim Fuller-Rowell, CU CIRES

8:30 AM - 8:35 AM **Overview and Introductions**
Rebecca Bishop, The Aerospace Corporation

- 8:35 AM - 8:45 AM [Next-generation Ionosphere Model for Operations \(NIMO\) – Operational Status and Upcoming Enhancements](#)
Sarah McDonald, Naval Research Laboratory (NRL)
- 8:45 AM - 8:55 AM [Google Research on Mapping the Ionosphere with Millions of Phones](#)
Jamie Smith, Google
- 8:55 AM - 9:05 AM [An Update on SWPC's Ionosphere Products and Services](#)
Tzu-Wei Fang, NOAA SWPC
- 9:05 AM - 9:15 AM [SPARTA: Specific Outputs Relevant to SWPC](#)
Keith Groves, Boston College
- 9:15 AM - 9:25 AM [The Impact and Sources of Radio Frequency Interference on GNSS Signals](#)
Endawoke Yizengaw, The Aerospace Corporation
- 9:25 AM - 9:45 AM **Panel & Audience Discussion**
- 9:45 AM - 10:45 AM **Break and Poster Session: Geospace/Magnetosphere Research and Applications and Space Weather Policy and General Space Weather Contributions**
- 10:45 AM - 11:00 AM [Special Presentation: Advancing Space Weather Socio-economic Impact Assessments](#)
Edward Oughton, George Mason University
- 11:00 AM - 12:15 PM [Navigating the Storm: Effective Communication Strategies For Space Weather Events](#)
Co-Chairs: Shawn Dahl, NOAA SWPC
Simon Machin, UK Met Office
- 11:00 AM - 11:05 AM **Overview and Introductions**
Shawn Dahl, NOAA SWPC
- 11:05 AM - 11:15 AM [Communicating Top Level Space and Space Weather News](#)
Jeff Foust, SpaceNews
- 11:15 AM - 11:25 AM [Lessons Learned: Explaining Space Physics to Non-Scientists](#)
Kasha Patel, The Washington Post
- 11:25 AM - 11:35 AM [Success Stories and the Changing Landscape of Space Weather Communication](#)
Tamitha Skov, Millersville University
- 11:35 AM - 11:45 AM [Navigating Space Weather: The Role and Challenges of the Space Weather Journal in Event Communication](#)
Steve Morley, Los Alamos National Laboratory

- 11:45 AM - 11:55 AM [**Bridging Space Weather and Society: Lessons on Effective Space Weather Communication from Terrestrial Weather**](#)
Kim Klockow, NOAA National Centers for Environmental Prediction (NCEP)
- 11:55 AM - 12:15 PM **Panel & Audience Discussion**
- 12:15 PM - 1:30 PM **Lunch**
- 1:30 PM - 2:30 PM [**Emerging Workforce Development**](#)
Co-Chairs: Alessandra Pacini, NOAA NCEI
Kelly Korreck, NASA HQ
- 1:30 PM - 1:35 PM [**Overview and Introductions**](#)
Alessandra Pacini, NOAA NCEI
- 1:35 PM - 1:43 PM [**Hackathons and Other Effective Training/Resources for the Space Weather Emerging Workforce in Big Data Analysis \(AI/ML\)**](#)
Enrico Camporeale , University of Colorado Space Weather Technology, Research, and Education Center (SWxTREC)
- 1:43 PM - 1:51 PM [**Space Weather and Science Education: Curriculum Development Needs and Challenges**](#)
Ramon Lopez, The University of Texas at Arlington
- 1:51 PM - 1:59 PM [**Beyond the Sphere: Maximizing NOAA's Science on a Sphere \(SOS\) Tools for K-12 Space Weather Engagement**](#)
Hilary Peddicord, CU CIRES
- 1:59 PM - 2:07 PM [**Mentoring the Emerging Space Weather Workforce: Challenges and Tips for Senior Professionals**](#)
Mike Wiltberger, NCAR High Altitude Observatory (HAO)
- 2:07 PM - 2:30 PM **Panel & Audience Discussion**
- 2:30 PM - 3:30 PM **Break and Poster Session: Geospace/Magnetosphere Research and Applications and Space Weather Policy and General Space Weather Contributions**
- 3:30 PM - 4:40 PM [**Bridging the Gap: Overcoming Challenges in Ground-Based Observations for Space Weather Forecasting**](#)
Co-Chairs: Michael Hartinger, Space Science Institute
Kathryn Wilbanks, University of Michigan
- 3:30 PM - 3:35 PM **Overview and Introductions**
Michael Hartinger, Space Science Institute
- 3:35 PM - 3:43 PM [**The University of Calgary Ground-Based Sensor Network for Space Science and Space Weather**](#)
Emma Spanswick, University of Calgary

- 3:43 PM - 3:51 PM** [NSO solar/ngGONG](#)
Alexei Pevtsov, National Solar Observatory (NSO)
- 3:51 PM - 3:59 PM** [Neutron Monitors](#)
Pierre Simon Mangeard, University of Delaware
- 3:59 PM - 4:07 PM** [Riometers](#)
Robyn Fiori, Natural Resources Canada
- 4:07 PM - 4:15 PM** [Ground-based Radio Measurements of the Arctic Ionosphere](#)
P. T. Jayachandran, University of New Brunswick
- 4:15 PM - 4:23 PM** [A Sustainable Business Model for Operational Data Streams from Remote Magnetometer Installations](#)
Steven Berg, Computational Physics, Inc.
- 4:23 PM - 4:40 PM** **Panel & Audience Discussion**
- 4:40 PM - 5:30 PM** [Empowering Resilience to Space Weather through Enhanced Observations](#)
Co-Chairs: Steven Hill, NOAA SWPC
 Bhagyashree Waghule, University of Colorado, Boulder
- 4:40 PM - 4:45 PM** **Overview and Introductions**
Steven Hill, NOAA SWPC
- 4:45 PM - 4:53 PM** [Argos Unmanned Aerial Vehicle \(UAV\) Flight Testing](#)
Justin Bailey, Space Environment Technologies
- 4:53 PM - 5:01 PM** [Gannon Storm and Radiation Belt Effects](#)
Richard Horne, British Antarctic Survey
- 5:01 PM - 5:09 PM** [Advancing Magnetographs for Improved Space Weather Forecasts and Products](#)
Neal Hurlburt, Lockheed Martin
- 5:09 PM - 5:17 PM** [South American Solar and Space Weather Ground-based Networks](#)
Jean-Pierre Raulin, Center for Radio Astronomy and Astrophysics, Mackenzie University
- 5:17 PM - 5:30 PM** **Panel & Audience Discussion**

Friday, March 21 Location: Pearl St. Ballroom

- 8:30 AM - 9:40 AM** [Advances in Space Weather Modeling](#)
Co-Chairs: Dan Welling, University of Michigan
 Eric Adamson, NOAA SWPC
- 8:30 AM - 8:35 AM** **Overview and Introductions**
Dan Welling, University of Michigan

- 8:35 AM - 8:45 AM** [Update on CCMC activities Aligned with Decadal Space Weather Recommendations and SWAG Report](#)
Masha Kuznetsova, NASA Goddard Space Flight Center
- 8:45 AM - 8:55 AM** [Modeling the Gannon Storm with Multiscale Atmosphere-Geospace Environment Model \(MAGE\)](#)
Kevin Pham, NCAR HAO
- 8:55 AM - 9:05 AM** [NASA Center of Excellence \(CoE\) All-Clear Solar Energetic Particle Forecasts \(CLEAR\) Solar Energetic Particles \(SEPs\)](#)
Lulu Zhao, University of Michigan
- 9:05 AM - 9:15 AM** [NASA's SWORD Space Weather Center of Excellence: Strategies to Improve Space Weather Forecasting in Geospace](#)
Tom Berger, University of Colorado
- 9:15 AM - 9:25 AM** [The Air Force Research Laboratory's Support of the DoD and National Space Weather Needs](#)
Shawn Young, AFRL
- 9:25 AM - 9:40 AM** **Panel & Audience Discussion**
- 9:40 AM - 10:00 AM** **Break**
- 10:00 AM - 10:15 AM** [Special Presentation: Opening New Horizons with the Korea-led L4 Mission: March 2025 Progress Report](#)
Kyung-Suk Cho, Korea Astronomy and Space Science Institute (KASI)
- 10:15 AM - 11:05 AM** [Developing Global Resilience to Space Weather Storms](#)
Co-Chairs: Mark Gibbs, UK Met Office
Juha-Pekka Luntama, European Space Agency (ESA)
- 10:15 AM - 10:20 AM** [Overview and Introductions](#)
Mark Gibbs, UK Met Office
- 10:20 AM - 10:28 AM** [Korean Space Weather Program](#)
Kichang Yoon, Korea AeroSpace Administration (KASA)
- 10:28 AM - 10:35 AM** [Space Weather Research and Services at the German Aerospace Center \(DLR\)](#)
Jens Berdermann, DLR
- 10:35 AM - 10:43 AM** [Japanese Space Weather Programs](#)
Mamoru Ishii, Radio Research Institute, National Institute of Information and Communications Technology and Institute for Space-Earth Environmental Research/Nagoya University
- 10:43 AM - 10:51 AM** [Integration of Space Weather into WMO Activities](#)
Jesse Andries, World Meteorological Organization (WMO)
- 10:51 AM - 11:05 AM** **Panel and Audience Discussion**

- 11:05 AM - 12:05 PM** **Innovation and Advancement of Space Weather Products and Services**
 Co-Chairs: Michael Wiltberger, NCAR HAO
 Mike Bettwy, NOAA SWPC
- 11:05 AM - 11:10 AM** **Overview and Introductions**
 Michael Wiltberger, NCAR HAO
- 11:10 AM - 11:18 AM** **Compact Vector Helium Magnetometer (CVHM) for Space Weather Monitoring of the Interplanetary Magnetic Field**
 Corey Cochrane, NASA Jet Propulsion Laboratory (JPL)
- 11:18 AM - 11:26 AM** **NOAA/NCEI SWx Data Infrastructure**
 Alessandra Pacini, NOAA NCEI
- 11:26 AM - 11:34 AM** **2024 GIC Meeting Outcomes and User Needs**
 Dan Welling, University of Michigan
- 11:34 AM - 11:42 AM** **The May 2024 Solar and Geospace Superstorm Workshop: Outcomes and Guidance for Space Weather Providers and Users**
 Michael Wiltberger, NCAR HAO
- 11:42 AM - 11:50 AM** **Solar Sails**
 Pat Mulligan, The MITRE Corporation
- 11:50 AM - 12:05 PM** **Panel and Audience Discussion**
- 12:05 PM – 12:15 PM** **The Geomagnetic Storm Forecast Funnel: From Solar Cycle Trends to Ground-Level Impacts**
 Briana “Bri” Muhlestein, NOAA SWPC
- Meeting Conclusion**
- 12:15 PM - 12:25 PM** **Closing Remarks**
 Howard Singer, NOAA SWPC
- Post-Workshop Events**
- 1:00 PM - 3:00 PM** **ISES Annual Meeting (by invitation only)**
 Location: “Royal Arch” Meeting Room