2017 Space Weather Enterprise Forum

Implementing a National Space Weather Partnership

Sponsored by
United States Air Force
and
Secure World Foundation
and
National Space Weather Partnership
Mr. Ralph O. Stoffler
Director of Weather, Deputy Chief of Staff for Operations, Headquarters, U.S. Air Force, Washington, D.C.
Space Weather Enterprise Partnership

• National Space Weather Partnership
  – Academic Institutions: National Academies of Science, Johns Hopkins APL,
  – Non-Profit Organizations: Secure World Foundation (Thank you for your Support)

The NSWP achieves synergistic results allowing each partner organization to enhance national capabilities.
SWEF Objectives

- Share information across the enterprise and raise awareness for new users, decision makers, and policymakers.
- Identify effective approaches to build resilience across society, particularly in critical infrastructure protection and support.
- Identify effective approaches to raise awareness in the broader society.
- Improve communications within and external to the enterprise.
- Collect information to support the development of new National Space Weather Plans.
Agenda

• Session 1: Opening
• Session 2: Space Weather Impacts, Preparation, and Mitigation
• Session 3: Space Weather Services, Science and Supporting Infrastructure.

Lunch Break / Poster Session

• Session 4: National Space Weather Strategy and Action Plan Update
• Session 5: The National Space Weather Partnership
• Session 6: Closing
National Security Perspective

Major General Scott A. Vander Hamm
Assistant Deputy Chief of Staff, Operations, Headquarters U.S. Air Force, the Pentagon, Washington, D.C.
Keynote Speaker

Dr. Stephen Volz
Assistant Administrator for Satellite and Information Services
National Oceanic and Atmospheric Administration (NOAA) Administrator
Session 2: Space Weather Impacts and Mitigation

Moderator: Mr. Jacob Anderson,
Office of Infrastructure Protection
Department of Homeland Security (DHS)

- Ms. Kenyetta Blunt, Chief, Recovery Planning Branch,
  Federal Emergency Management Agency
- Mr. Ralph Stoffler, U.S. Air Force Director of Weather,
- Dr. Ken Friedman, Senior Policy Advisor, Office of Electricity Delivery and Energy Reliability, Dept. of Energy
- Mr. Mark MacAlester, Telecommunications Specialist and National Response Coordinator, FEMA Disaster Emergency Communications Division
Session 3: Space Weather Services, Science and Supporting Infrastructure

**Moderator:** Mr. Mathew Jones,
Director of C4ISR and Advanced Technology and Government Operations at Boeing, and Chair of the Technology Industry Association’s Space Enterprise Council.

- **Dr. Thomas Zurbuchen**, Assoc. Administrator, NASA Science Mission Directorate
- **Dr. Bill Easterling**, Assistant Director for Geosciences, Nation Science Foundation
- **Dr. Louis Uccellini**, NOAA Assistant Administrator for Weather Services and Director, National Weather Service
- **Dr. Conrad Lautenbacher**, Chief Executive Officer, GeoOptics Incorporated and American Commercial Space Weather Association (ACSWA).
## Poster Session:
**Lunch and poster viewing until 2:00 PM**

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<td>NSWP History</td>
<td>Michael Bonadonna</td>
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<td>P-02</td>
<td>RISK and resilience in the context of space weather</td>
<td>Christy M. Foran</td>
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<td>Observing the Solar Wind</td>
<td>Joe Davila</td>
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<td>EarthScope Magnetotelluric Surveys (w/ video)</td>
<td>Adam Schultz</td>
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<td>SWx Societal Cost Impacts Analysis</td>
<td>Stacey Worman</td>
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<td>EUV Photon Sieve telescopes</td>
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<td>Geoelectric Field Maps</td>
<td>Anna Kelbert</td>
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<td>Challenge for Next Generation Space Weather Measurements.</td>
<td>George Ho</td>
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<td>The American Commercial Space Weather Assoc. (ACSWA)</td>
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<td>SPORT Cubesat mission</td>
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<td>Coronal And Magnetic Imagers</td>
<td>Neal Hurlburt</td>
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<td>P-12</td>
<td>Ongoing and Future Space Weather Outreach Service: Five Years of Data and Analysis, and a Roadmap Looking Forward</td>
<td>Ben Davidson</td>
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<td>SWING -- The Space Weather Integrated Network Group</td>
<td>Frank Hill</td>
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<td>Update to NOAA's Space Weather Requirements and Mission Services represented in the NOAA Observing System Architecture (NOSA)</td>
<td>David Helms</td>
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<td>Space Weather Data Products and Modeling Capabilities at Los Alamos National Laboratory</td>
<td>Michael Henderson</td>
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Session 4: National Space Weather Strategy and Action Plan Update

**Moderator:** Mr. William Murtagh, Program Coordinator, Space Weather Operations Research and Mitigation (SWORM) Subcommittee and NOAA Space Weather Prediction Center

- **Dr. Steven Clarke,** Director, Heliophysics Division, Headquarters, National Aeronautics and Space Administration
- **Dr. Jeffrey Love,** Research Geophysicist, Advisor for Geomagnetic Research, US Geological Survey
- **Mr. Kenneth Hodgkins,** Director, Office of Space and Advanced Technology, US Department of State
- **Dr. Seth Jonas,** Science and Technology Policy Institute
Session 5: The National Space Weather Partnership

**Moderator:** Ms. Victoria Samson, Washington Office Director, Secure World Foundation

- **Dr. Sarah Gibson**, Chair, Committee for Solar and Space Physics, National Academies of Science, and University for Atmospheric Research (UCAR), Boulder, CO
- **Mr. Alec Engell**, NextGen Federal Systems and American Commercial Space Weather Association (ACSWA)
- **Mr. Charles Chafer**, Space Services Incorporated and American Commercial Space Weather Association (ACSWA)
- **Dr. Daniel Baker**, Laboratory for Atmospheric and Space Physics (LASP), University of Colorado, Boulder, CO
Dr. William Schulz,
Federal Coordinator, Office of the Federal Coordinator for Meteorology

- What we heard yesterday and today
- Key points and take aways
- Questions to be answered
- What next?
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Next Steps

- Analyze results to apply to the National Space Weather Partnership
- Provide results to support the National Space Weather Strategy and Action Plan
- Begin planning for the next SWEF for the Summer 2018
Post-Forum Information

- Forum materials will be available online
  - Program book (updated)
  - Final agenda
  - Summary report
  - Presentations
  - Audio recording
  - Written Transcript

http://www.ofcm.gov/
https://swfound.org/
Final Comments

- Thank you!
  - Speakers, moderators, and panelists
  - Session coordinators & rapporteurs
  - OFCM Staff and the SWEF Organizing Committee
  - National Space Weather Partnership Members
  - Attendees!