2016 Space Weather Workshop Agenda
Omni Interlocken Hotel
Updated 4/13/16

Monday, April 25

9:00 - 12:00  Update on the Implementation of the National Space Weather Action Plan
1:00 - 5:00   Economic and Operational Impacts
1:00 - 5:00   Working Meeting on the Harmonization of Solar Energetic Particle (SEP) Data Calibrations
3:00 - 5:00   Ionospheric Scale Discussion

5:00 - 7:00   Welcome Networking Session (Lobby Court; Omni Interlocken Hotel)

Tuesday, April 26

8:30   Conference Welcome
   Brent Gordon, NOAA/SWPC

8:35   State of the Space Weather Prediction Center
   Thomas Berger, NOAA/SWPC

8:45   What Happened to Those Sunspots and What Can We Expect?
   Doug Biesecker, NOAA/SWPC

9:05   Space Weather Activity – A Year in Review
   Robert Rutledge, NOAA/SWPC

9:25 - 9:40   Break

9:40 - 11:00  White House Space Weather Activities
   Chair: William Murtagh, OSTP

9:40   Update on the National Space Weather Strategy and Action Plan
   Tamara Dickinson, OSTP

10:00  Air Force One and Other Elements of the White House Military Office
   Tom Geyer, WHMO

   Matthew Heavner, OSTP

10:40  Live! From the White House Situation Room
   Jason Novick, The White House

11:00 - 12:00  DSCOVR
   Chair: Alysha Reinard, NOAA/SWPC

11:00  NOAA Goes to L1 with DSCOVR
   Doug Biesecker, NOAA/SWPC

11:20  DSCOVR Magnetometer Observations
   Adam Szabo, NASA/GSFC
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:40</td>
<td>DSCOVR Faraday Cup Solar Wind Observations</td>
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<td>Justin Kasper, University of Michigan</td>
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<td>12:00 - 2:45</td>
<td>Lunch and 12:30 SWPC Tour</td>
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<td>1:00 - 2:30</td>
<td>Poster Session: Solar and Heliosphere Applications and Research</td>
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<td>2:30 - 3:00</td>
<td>Afternoon Keynote: The Role of Academia in the Nation’s Space Weather Program</td>
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<td>Dan Baker, LASP</td>
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<td>3:00 - 5:00</td>
<td>Space and Ground Based Observations / Advances</td>
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<td>Chair: Rodney Viereck, NOAA/SWPC</td>
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<td>3:00</td>
<td>Neutron Monitors – Perhaps the Original Space Weather Instrument</td>
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<td>Jim Ryan, University of New Hampshire</td>
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<td>3:20</td>
<td>GOES-VW Free-Flyer Concept for Space Weather Instruments</td>
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<td>Frank Eparvier, LASP</td>
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<td>3:40</td>
<td>QuakeFinder Induction Magnetometer Network: Hi Res Observations During Solar Storms</td>
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<td>Tom Bleier, QuakeFinder</td>
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<td>4:00</td>
<td>GOES - 40 Years of Satellite Space Environmental Monitoring</td>
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<td>William Denig, NCEI/NOAA</td>
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<td>4:20</td>
<td>Carrington – an Operational Mission to L5</td>
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<td>Mark Gibbs, UK Met Office</td>
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<td>4:40</td>
<td>An Update on the COSMIC-2 Mission</td>
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<td>Lidia Cucurull, NOAA Global Systems Division (GSD)</td>
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<td>5:00</td>
<td>End of Session</td>
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<td>5:30 - 7:30</td>
<td>10th Annual NOAA/ SWPC - Commercial Space Weather Interest Group (CSWIG)/American Commercial Space Weather Association (ACSWA) Summit Meeting - by invitation</td>
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Wednesday, April 27

8:30 - 8:40  Space Weather Morning Forecast Brief
Dave Marshal, SWPC Space Weather Forecasting Office

8:40 - 10:10  Commercial Space Weather Interest Group (CSWIG)/
American Commercial Space Weather Association (ACSWA)
Roundtable Session: “Growing the Space Weather Enterprise”

Keynote Speaker:
Admiral Thad Allen, U.S. Coast Guard (ret), Executive Vice President Booz Allen Hamilton:

“The Benefits of Collaboration Between Commercial Industry and the Government in Confronting the Complexities of Co-producing Successful Outcomes in Achieving National Goals Associated with the Preparation and Mitigation of Natural and Human-made Disasters.”

Featured Speaker:
Dr. Conrad Lautenbacher, CEO, GeoOptics, Inc.; and Member, ACSWA Executive Committee.
“Growing the Space Weather Enterprise: Progress in Partnership.”

Featured Speaker: TBD
“The Role of the Commercial Sector in the Nation’s Space Weather Program.”

Panel: Keynote & Featured Speakers
Q & A

Moderator and Organizer: Dr. Devrie Intriligator, Director, Space Plasma Laboratory, Carmel Research Center, Inc.; and Member, ACSWA Executive Committee.

10:10 - 10:30  Break

10:30 - 12:00  Panel: Agency Activities
Chair: Thomas Berger, NOAA/SWPC

10:30  NASA Heliophysics Division - The Science of Space Weather
Steven Clarke, NASA/Heliophysics

10:45  Space Weather Research at the National Science Foundation
Therese Moretto Jorgensen, NSF

11:00  Department of Defense Space Weather
Lt Col Mark Allen, AFW

11:15  National Weather Service
Bill Lapenta, NOAA/NWS

11:30  NESDIS
Karen St. Germain, NOAA/NESDIS

11:45  The USGS Geomagnetism Program
Jill McCarthy, USGS
12:00 - 12:10  Benchmarking Progress in Space Weather: Reprise of the 2001 AGU Monograph on Space Weather - Space Weather Journal Special Collection Announcement
Delores Knipp, Space Weather Journal

12:10 - 1:30  Lunch

1:30 - 3:10  **Space Weather Impacts: Electric Power Grid**
Chair: Bill Murtagh, OSTP

1:30  An Ensemble Approach to Communicating Extreme Space Weather Event Probability
Seth Jonas, STPI

1:50  Adventures in Geoelectric Field Calculations and Validation
Chris Balch, NOAA

2:10  **Space Weather Power System Impacts and PJM Response**
Frank Koza, Pennsylvania-New Jersey-Maryland Interconnection (PJM)

2:30  **GIC modeling: From the Solar Wind to Power System Impacts**
Jennifer Gannon, Computational Physics, Inc.

2:50  **Create a 21st Century US Electricity System**
Sandy MacDonald, NOAA Emeritus

3:10 - 5:00  **Poster Session - General Space Weather Services & Magnetosphere Applications and Research**
(2 Groupings)

5:00  End of Session

6:00 - 9:00  Banquet Dinner at Omni Interlocken Ballroom

**Special Guest Speaker:**

Dr. Tony Phillips, Spaceweather.com

“Mutant Fungi in the Stratosphere and other Space Weather Surprises”
Thursday, April 28

8:30 - 8:40  Space Weather Morning Forecast Brief
Shawn Dahl, SWPC Space Weather Forecasting Office

8:40 - 10:00  Space Weather and the Arctic: Challenges and Opportunities in the New Frontier
Chair: Rodney Viereck, NOAA/SWPC

8:40  Ionospheric Mapping Using a Ground-Based GPS Receiver Network in Alaska
Geoff Crowley, Atmospheric and Space Technology Research Associates (ASTRA)

9:00  Space Weather Impacts in Alaska
Carven Scott, NOAA

9:20  Space Weather Effects with the Flip of a Switch
Robert McCoy, University of Fairbanks

9:40  The Arctic: NORAD and USNORTHCOM Perspective
Lt Col Jason Julian; Charlotte Browning, USNORTHCOM

10:00 - 10:20  Break

10:20 - 12:00  Improving SWx Forecasting I: Modeling and Data Assimilation
Chair: Doug Biescker, NOAA

10:20  Living with a Star
Elsayed Talaat, NASA/Heliophysics

10:40  Atmosphere and Surface Impacts by Auroral Energetic Electron Precipitation (EEP)
Ethan Peck, Columbia University

11:00  Space Weather Modeling Framework (SWMF) University of Michigan Perspectives
Dan Welling, University of Michigan

11:20  Forecasting Solar Indices with ADAPT
Carl Henney, Air Force Research Laboratory (AFRL)

11:40  Between Earth and Space: Ensemble Modeling and Data Assimilation of the Space-Atmosphere Interaction Region
Tomoko Matsuo, NOAA/SWPC

12:00 - 2:45  Lunch and 12:30 SWPC Tour

1:00 - 2:30  Poster Session – Ionosphere / Thermosphere Research and Applications

2:30 - 3:00  Afternoon Keynote: How Space Weather got to Boulder in the Post-WWII Years
Joe Bassi, Embry Riddle University

3:00 - 3:20  A Report from the Recent Workshops on Economic and Operational Impacts
Nicola Fox, Johns Hopkins University/Applied Physics Laboratory

3:20 - 5:00  International Coordination of Space Weather Activities
Chair: Terry Onsager, NOAA/SWPC
3:20  Project for Solar-Terrestrial Environment Prediction (PSTEP) in Japan  
Kanya Kusano, Institute for Space-Earth Environmental Research (Nagoya University)

3:40  ESA SSA Federated Approach for Space Weather Services  
Juha-Pekka Luntama, European Space Agency (ESA)

4:00  Space weather services in Korea  
Dong-Hun Lee, Korean Space Weather Center

4:20  Mexican Space Weather Service (SCIESMEX)  
Juan Americo Gonzalez Esparza, Mexican Space Weather Service

4:20  The Australian Bureau of Meteorology: Space Weather Services  
Phillip Maher, Bureau of Meteorology

5:00  End of Session

Omni Interlocken Hotel - Meeting Rooms
Friday, April 29

8:30 - 8:40  Space Weather Morning Forecast Brief
Rob Steenburgh, SWPC Space Weather Forecasting Office

8:40 - 10:00  Improving SWx Forecasting II: Modeling and Data Assimilation
Chair: Howard Singer, NOAA/SWPC

8:40  Community Coordinated Assessment and Rapid Implementation of Space Weather Analysis and Forecasting Capabilities
Masha Kuznetsova, NASA/CCMC

9:00  An Operational Geospace Model at the National Weather Service: Latest Update
George Millward, NOAA/SWPC

9:20  Overview of NASA MSFC and UAH Space Weather Modeling and Data Efforts
Linda Neergaard Parker, Jacobs/MSFC

9:40  Van Allen Probes and Space Weather
Mona Kessel, NASA HQ

10:00 - 10:20  Break

10:20 - 12:00  Space Weather Impacts: Radiation Modeling and Observations
Chair: Terry Onsager, NOAA/SWPC

10:20  45th Weather Squadron Space Weather Support to Launch
Kathy Winters, USAF

10:40  Predicting Solar Energetic Particle (SEP) Events Using SEPMOD with ENLIL
Janet Luhman, UC Berkeley

11:00  The Radiation Dosimetry Experiment (RaD-X) Flight Mission: Observations for Improving the Prediction of Cosmic Radiation Health Risk at Aviation Altitudes
Christopher Mertens, NASA

11:20  Comparison of Cosmic Radiation Detectors in the Radiation Field at Aviation Altitudes
Matthias Meier, DLR

11:40  Space Weather at Mars: Energetic Particle Measurements on the Surface of Mars with MSL RAD
Don Hassler, Southwest Research Institute

12:00  Closing Remarks
Thomas Berger, NOAA/SWPC

12:10  End of Conference