Space Weather Enterprise Forum
Policy Panel

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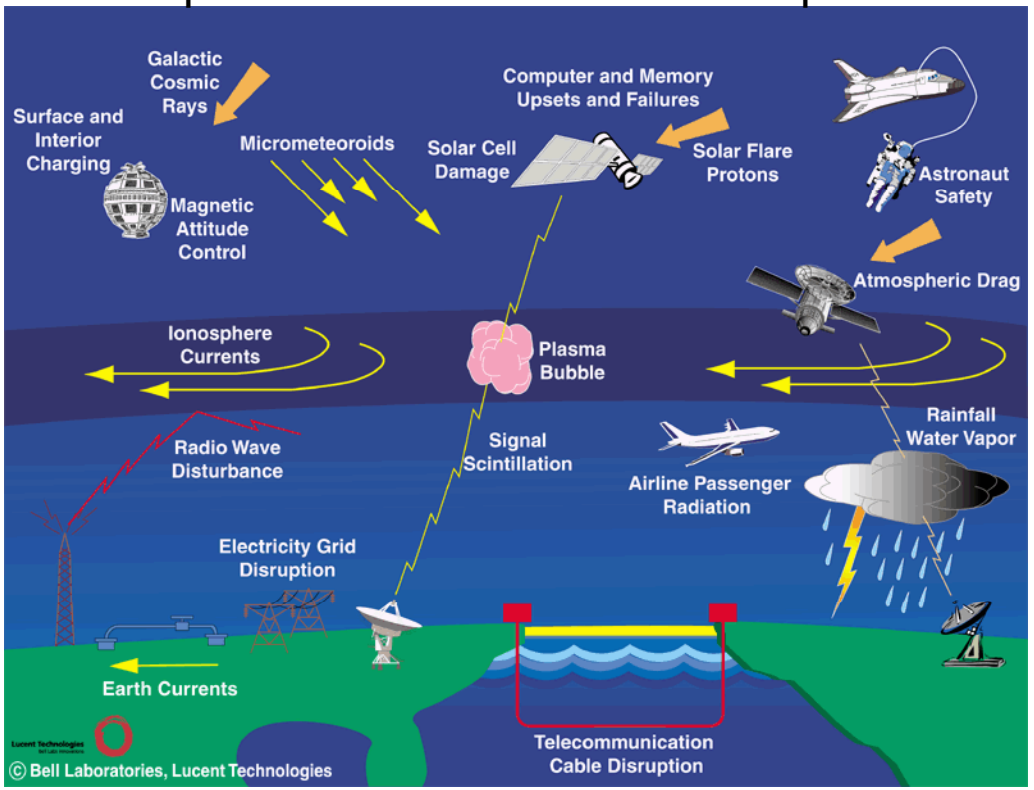
Space Weather – Cross Cutting Impacts (Commerce, DoD, NASA, others)

- **Space Weather Effects**
  - Ionospheric Effects on Communications
  - Spacecraft Operations (Charging)
  - Astronaut Impacts (Energetic Particles)
  - ….
- **Policy Questions**
  - Who takes the lead?
  - How do the agencies (& countries) work together?
  - Infrastructure requirements?

Space Weather Effects and Impacts



National Space Weather Program - 10 Year Assessment Report

Assessment Committee

Daniel N. Baker (University of Colorado)
Delores J. Knipp (U.S. Air Force Academy)
Tammy Jernigan (Lawrence Livermore National Laboratory)
Louis J. Lanzerotti, Chair (NJIT and Lucent Technologies)
Ray A. Williamson (George Washington University)
S. Pete Worden (University of Arizona)
Robert J. Rizza, Executive Secretary (U.S. Air Force)

The NSWP has supported significant efforts to investigate economic and industrial space weather impacts. Such impacts are now discussed in scholarly science journals and in industrial and popular literature. The Program has significantly increased overall awareness of space weather.

National Space Weather Program - *Committee Recommendations to Strengthen the NSWP*

- ***To centralize program management and set national funding priorities***
  - *Establish a space weather expert as the permanent Executive Secretary to the*
  - *Committee for Space Weather under the National Space Weather Program Council*
  - *Establish a focal point for the program in OSTP/OMB*

- ***For continuity of data sources critical to space weather forecasts and operations***
  - *Develop and execute strategy and funding for L1 sensor continuity*
  - *Maintain critical ground-based assets such as USGS magnetic observatories*

- ***To strengthen the science-to-user chain***
  - *Maintain and strengthen both targeted and strategic space weather research*
  - *Enhance emphasis and resources for transition of models to operational users*
  - *Increase the private sector role in supplying products and services*

- ***To emphasize public and user awareness of space weather for critical national needs***
  - *Quantify the national benefits that arise from the NSWP*
  - *Enhance academic and professional education programs for new space weather professionals*

Strategies to Obtain Real Time Solar Wind Data in the Post – ACE Era

- **Loss of Real Time Solar Wind is of great concern within Government and Public sectors.**

- **NOAA has taken a lead role in attempting to mitigate this loss and has been developing multiple options. These options include partnering with other Government agencies and the public sector.**

- **Options (Possibilities Explored to Date):**
  - **Host Space Weather Sensors on DSCOVR at L1**
  - **Commercial Data Buy**
  - **Small Satellite: Dedicated Space Weather Satellite at L1**

- **This issue illustrates the need for a multi-agency view.**
  - **What are the requirements for each agency?**
  - **Who will fund this? NASA, NOAA, DoD, other ?**

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Space Weather Strategies and the International Community

- **Space Weather Impacts Monitoring and Impacts are Global**

- **To What Degree Can and Should We Develop a Multi-National Solution?**

- **Issues:**
  - Developing a Multi-National Solution
  - Cost Sharing
  - Technology Transfer (ITAR)
  - Mission Operations
  - Data Sharing
  - Notes: Many of these issues have been successfully worked in NASA/ESA joint missions. The same could be done in the area of space weather monitoring.

- **Benefits: Potential Foreign Policy Benefits and Improving Our Working Relationship with our Foreign Partners.**