Enhancing Preparedness for Space-Weather Events

Our Nation's security, economic vitality, and daily functioning depend on the reliable operations of satellites and aircraft, communications networks, navigation systems, and the electric power grid. As these and other, similar technologies and infrastructures become increasingly ubiquitous and interdependent, the United States – and indeed, the world – faces greater risks from the threats posed by space weather events.

Space weather refers to variations in the space environment between the sun and Earth (and throughout the solar system). In particular, space weather describes the phenomena – solar flares, solar energetic particles, and coronal mass ejections – that impact systems in orbit and on Earth. In recent years, the Obama Administration has played an active role in maintaining and advancing the Nation's ability to forecast and mitigate the various impacts of space weather. This work has included taking steps to replace aging satellite assets essential to monitoring and forecasting space weather, proposing space-weather standards for both the national and international air space, developing regulations to ensure the continued operation of the electric grid during an extreme space weather event, proposing a new option for replacing crucial Extra High Voltage (EHV) transformers damaged by space weather, and developing domestic production sources for EHV transformers.

Yet gaps remain in our capacity to understand, model, predict, respond to, and recover from space-weather events. That's why today, the White House Office of Science and Technology Policy (OSTP) is hosting the event **"Space Weather: Understanding Potential Impacts and Building Resilience,"** with the goals of bringing together Federal and external stakeholders to discuss space weather preparedness and related science and technology efforts, and to raise awareness of the importance of being prepared for space-weather events. Anyone interested is encouraged to tune in live to the event from **2pm-5pm ET** at WhiteHouse.gov/live, follow OSTP's coverage of the event, and participate using the hashtag #SpaceWeather.

At the event, OSTP Director John Holdren will announce the release of the National Space Weather Strategy and the National Space Weather Action Plan. These two documents were developed by an interagency group of experts, with input from stakeholders outside the Federal government, to clearly articulate how the Federal government will work to enhance national space-weather preparedness by coordinating, integrating, and expanding existing policy efforts; engaging a broad range of sectors; and collaborating with international counterparts. The Strategy identifies goals and establishes the guiding principles that will guide these efforts in both the near and long term, while the Action Plan identifies specific activities, outcomes, and timelines that the Federal government will pursue accordingly. The Action Plan broadly aligns with investments proposed in the President's Budget for Fiscal Year 2016 and will be reevaluated and updated within 3 years of the date of publication or as needed.

In addition, both Federal agencies and non-Federal entities are announcing new actions to further enhance national space-weather preparedness. These actions include:

- The U.S. Air Force, in partnership with the National Oceanic and Atmospheric Administration, will make publicly available space environment data to validate and improve space-weather forecasting.
- The Administration, in keeping with national priorities of opening up government information and using innovation and technology to support disaster response and recovery, is launching a Space Weather Data Initiative.
- The Department of State is committing to hosting a series of international workshops and meetings, based in DC, to increase international collaboration around space-weather preparedness.
- The American Association of State Highway and Transportation Officials is ensuring that space-weather is incorporated into guidance documents for transportation-security and emergency-management officials.
- The National Emergency Management Association is increasing its space-weather training and education efforts.
- Airlines for America is committing to educate the commercial aviation community on space weather and its effects.

Together, these efforts will facilitate the integration of space-weather considerations into planning and decision-making at all levels, ensuring that the United States is appropriately prepared for and resilient to future space-weather events.

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