

United States Space Weather Strategy and Action Plan



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Executive Order Signed by U.S. President Obama October 13, 2016

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For Immediate Release October 13, 2016

Executive Order -- Coordinating Efforts to Prepare the Nation for Space Weather Events

EXECUTIVE ORDER

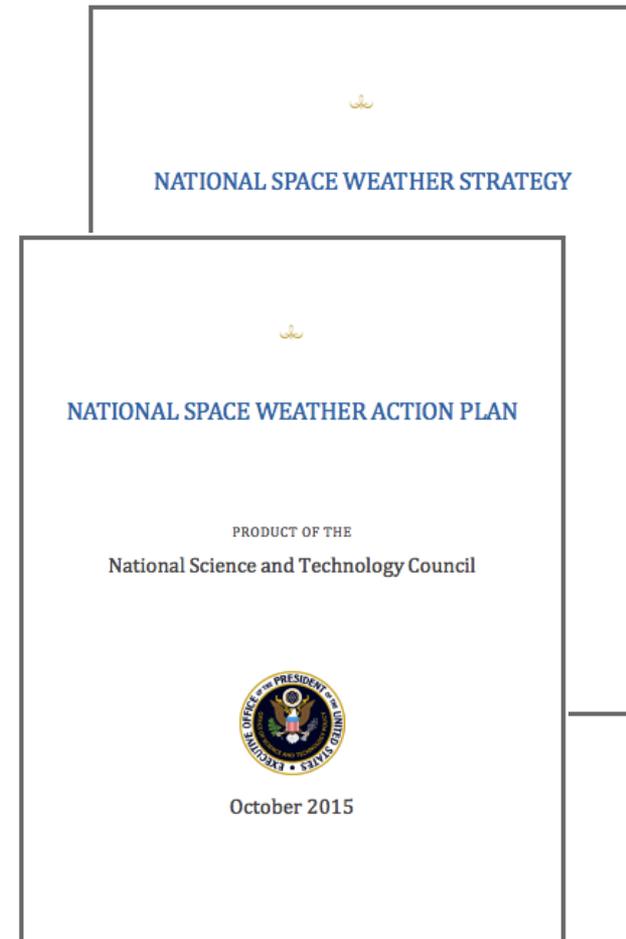
COORDINATING EFFORTS TO PREPARE
THE NATION FOR SPACE WEATHER EVENTS

- Establishing a national policy for space weather
- Establishing an enduring body within the National Science and Technology Council
- Articulating department and agency roles and responsibilities
- Ordering the implementation of necessary, high-level activities
- Reinforcing the need to work with non-Federal entities, including international partners



Space Weather Risks are Recognized - Mitigation Plans are being Developed

- U.S. National Strategy and Action Plan released October, 2015
- Developed by the Space Weather Operations, Research, and Mitigation Task Force
- Addresses benchmarks, response, data, research, modeling, and operations
- National and international actions





Space Weather Operations, Research, and Mitigation Task Force

Departments:

- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Homeland Security
- Department of the Interior
- Department of State
- Department of Transportation

Executive Office of the President:

- National Security Council
- Office of Management and Budget
- Office of Science and Technology Policy
- White House Military Office

Agencies and Service Branches:

- Federal Aviation Administration
- Federal Communications Commission
- Federal Emergency Management Agency
- Federal Energy Regulatory Commission
- NASA
- NOAA
- National Science Foundation
- Nuclear Regulatory Commission
- Office of the Director of National Intelligence
- United States Air Force
- United States Geological Survey
- United States Navy
- United States Post Office



Goal 1: Space Weather Event Benchmarks

Estimate theoretical maximum disturbance levels and 1-in-100 year events

Provide a clear and consistent description of space-weather events – not to classify system impact

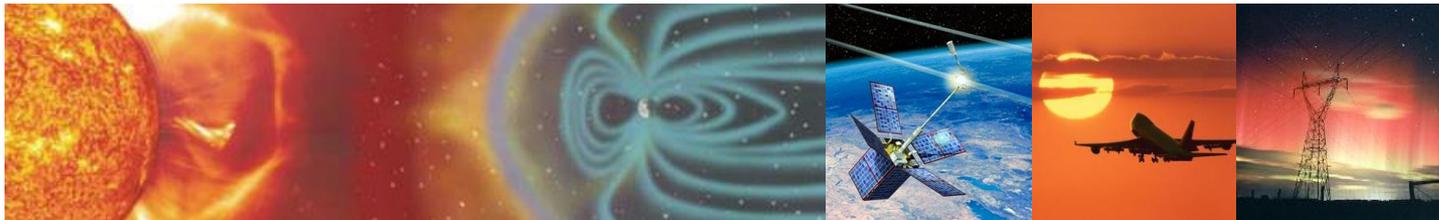
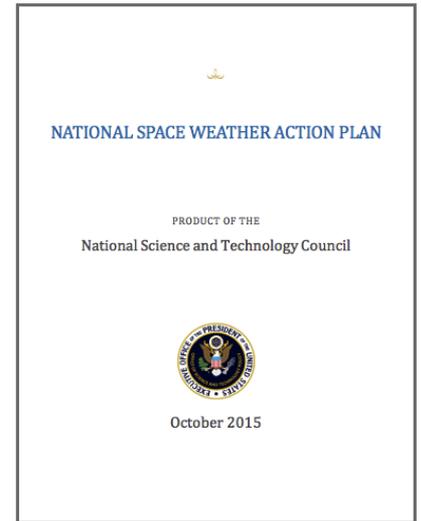
Reexamine at least every five years

- Induced geo-electric fields
- Ionizing radiation
- Ionospheric disturbances
- Solar radio bursts
- Upper atmospheric expansion



Goal 2: Response and Recovery Capabilities

- Complete an all-hazards power outage response and recovery plan
- Support planning for management of extreme space weather events
- Coordinate development of power-restoration priorities and expectations
- Conduct exercises to test response and recovery plans

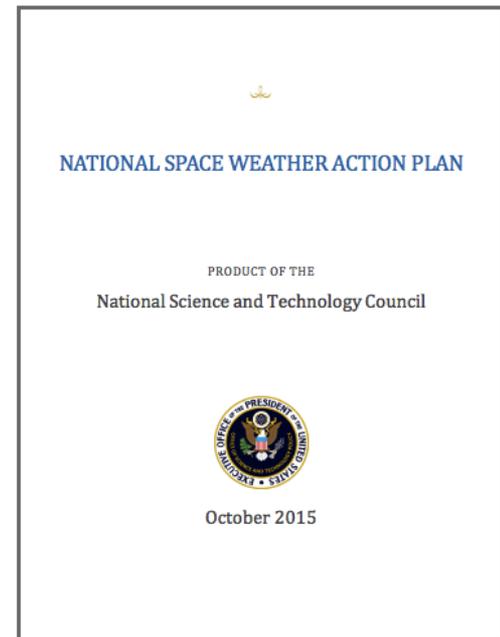




Goal 4:

Assessment, Modeling, and Prediction of Impacts

- Assess vulnerability of critical infrastructures
- Develop real-time infrastructure assessment capability
- Improve operational models that forecast effects on critical infrastructure
- Improve operational impact forecasting and communications
- Conduct research on effects of space weather on infrastructure sectors





Goal 6: International Coordination



- Build international support at the policy level (e.g., WMO, COPUOS, ICAO, ITU)
- Increase international engagement on observations, infrastructure, data sharing, modeling, research
- Strengthen coordination on products and services
- Promote preparedness for extreme events



Highlights

- Support research into the social and economic impacts of space weather
- Develop options to deploy operational L1 satellite with a coronagraph
- Sustain and enhance real-time solar wind data network
- Enhance coordination between research modeling centers and forecasting centers
- Develop a plan to ensure the improvement of operational models
- Engage with international partners to ensure globally consistent products and services during extreme events