Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM)

THE NATIONAL SPACE WEATHER PROGRAM

2011 Space Weather Workshop

Boulder, CO

April 27, 2011

Mr. Michael F. Bonadonna

Executive Secretary,

National Space Weather Program Council

Overview

- What is the NSWP?
- Recent Activities
- NSWP Plans for the Future

Space Weather – "A Team Sport"

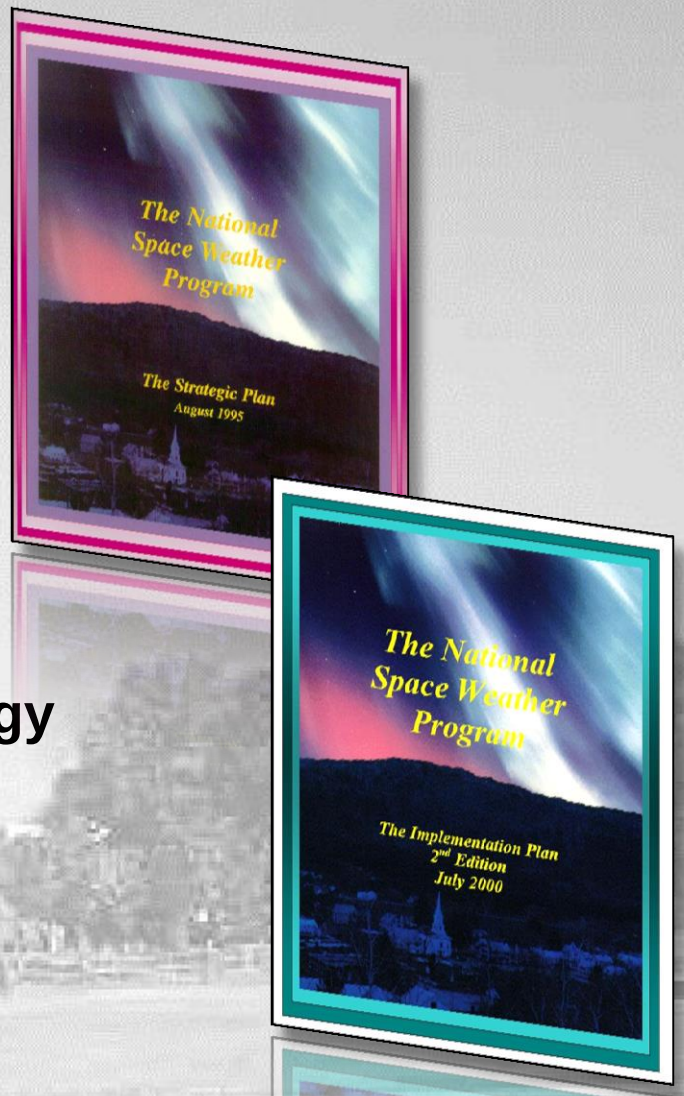
Thanks to
Our Interagency and non-governmental Partners
NSWP provides synergy beyond individual efforts

- **Program Council**
  - **Member Agencies: NOAA (NWS and NESDIS), Defense (Air Force), Energy, Homeland Security, Interior, State, Transportation, NASA, and National Science Foundation**
  - **Observers: White House Office of Science and Technology Policy and Office of Management and Budget**
  - **Sets overall policy, guidance, and direction**
- **Committee for Space Weather**
  - **Member Agencies: Same as Council**
  - **Executes Council guidance and implements the program**

National Space Weather Program

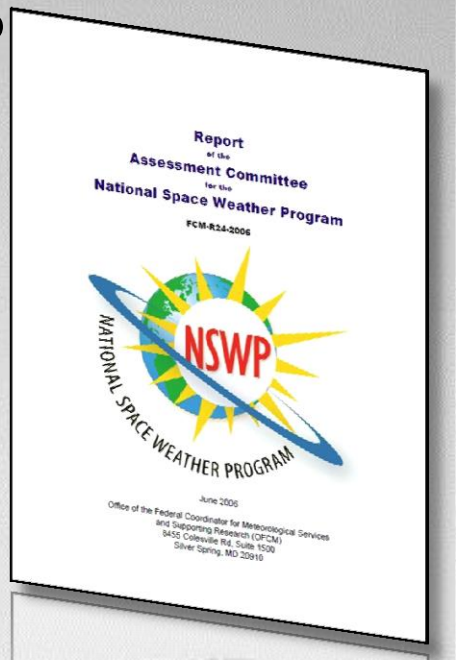
- **The National Space Weather Program (NSWP) established in 1995 with publication of Strategic Plan**
  - **Pulled federal community together**
  - **Set a vision for the future**

- **Implementation Plan, 2nd Edition, published in 2000**
  - **Defined details on capabilities, strategies, goals, research, technology transition, education and outreach, and program management**
  - **Linked National Security Space Architect efforts and the NSWP**



NSWP: Improving and Producing Results

- **2006: Independent Assessment of the NSWP**
  - **23 recommendations overall**
  - **Four key areas**
    - **Centralize program management, set funding priorities, increase effectiveness**
    - **Maintain continuity of critical data sources**
    - **Strengthen the science-to-user chain**
    - **Emphasize public and user awareness**



- **Executive Office of the President, Office of Science and Technology Policy asked NSWP to produce three key documents:**
  - **2008: Impact assessment of Low Earth-Orbit and Solar wind monitoring loss**
  - **2009: Space Environmental Sensing Mitigation Options for LEO and Solar Wind Reports**

2010: An Exciting and Fruitful Year

SDO Launch, Feb 2010 – Credit: NASA

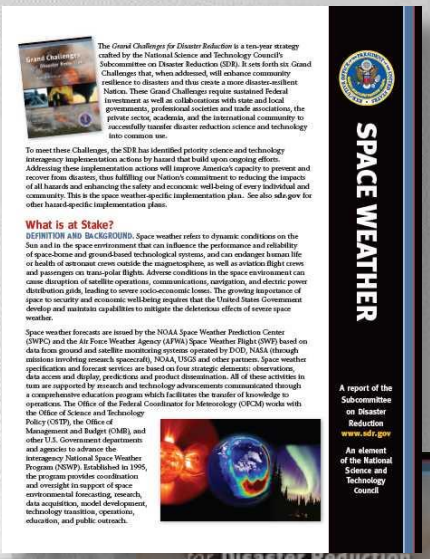
- NASA launched Solar Dynamics Observatory in February 2010
- New NSWP Strategic Plan
- Grand Challenges for Disaster Reduction - Space Weather Implementation Plan
- Space Weather Enterprise Forum
- Space Weather Workshop
- DSCOVR and COSMIC II in Fiscal Year 2012 President's Budget

2010 Forum Builds Momentum

- **June 8, 2010, in Washington, DC**
  - **Objectives:**
    - **Find effective means to raise public awareness.**
    - **Identify effective approaches to build resiliency across society, particularly in critical infrastructure protection and support.**
    - **Improve communication within and external to the enterprise.**
    - **Collect information to support a new NSWP I-Plan.**
    - **Share information across the space weather community**
  - **Results:**
    - **240+ attendees from government, industry, academia, and international**
    - **Key speakers:**
      - **Congresswoman Donna Edwards, U.S. House of Representatives**
      - **Mr. Jay Reich, Deputy Chief of Staff, Commerce Department**
      - **Mr. Craig Fugate, Director, Federal Emergency Management Agency**
      - **Mr. Christopher J. Scolese, NASA Associate Administrator**
    - **6 sessions, 30 national and internationally renowned speakers**

Grand Challenges in Disaster Reduction

- **NSWP partnered with the National Science and Technology Council's Subcommittee on Disaster Reduction (SDR) to publish the "Grand Challenges for Space Weather."**
  - **Challenge 1: Provide hazard and disaster information where and when it is needed**
  - **Challenge 2: Understand the natural processes that produce hazards**
  - **Challenge 3: Develop hazard mitigation strategies and technologies**
  - **Challenge 4: Reduce the vulnerability of infrastructure.**
  - **Challenge 5: Assess disaster resilience.**
  - **Challenge 6: Promote risk-wise behavior.**



- **This succinct plan provides a roadmap for action and detailed planning.**

Available at: http://www.sdr.gov/

Vision for a New Decade

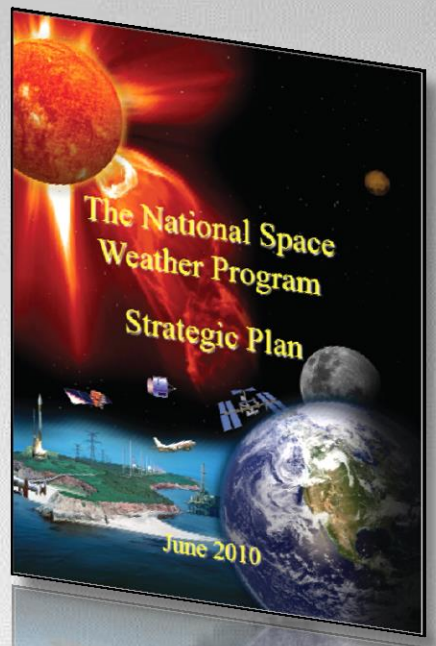
Vision

A nation that capitalizes on advances in science and forecasting to better cope with the adverse impacts of space weather on human activity and on advanced technologies that underlie our global economy and national security.

NSWP Council

Committee for Space Weather

185 recommendations
10 key documents



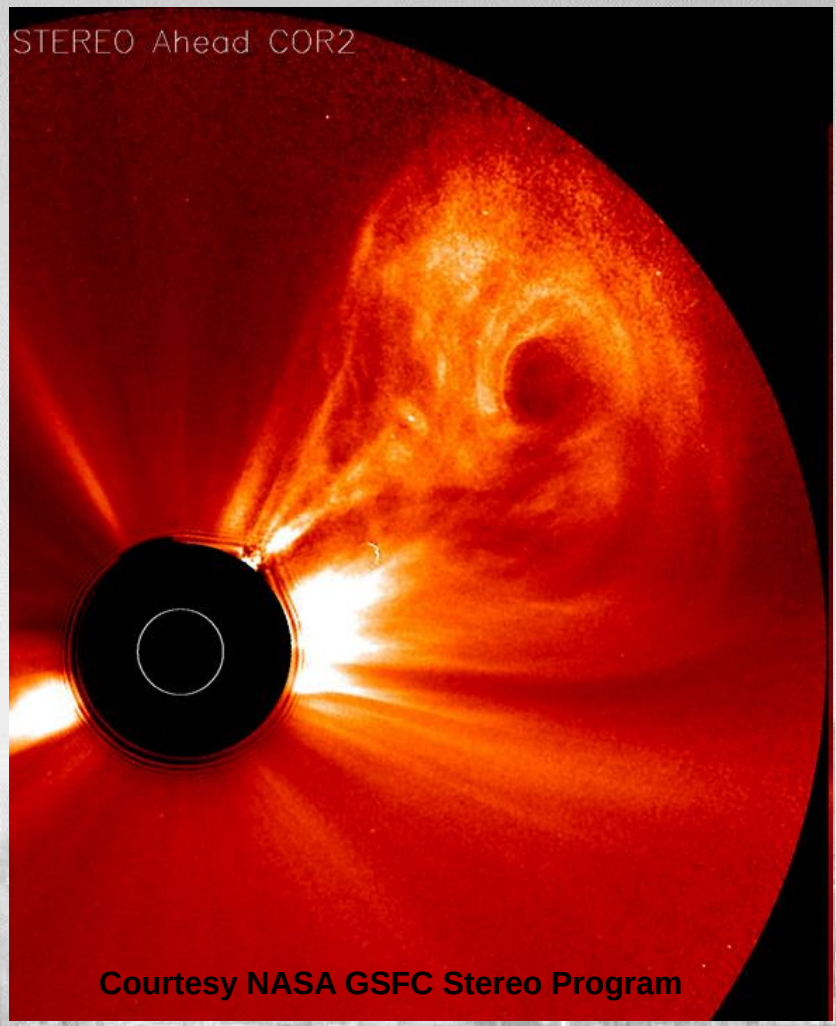
Mission

The National Space Weather Program (NSWP) serves as the focal point for the Federal government's national space weather enterprise and partnerships. By providing an active, synergistic, interagency forum for collaboration, the NSWP facilitates mutually beneficial interactions among the nation's research and operational communities.

Achieving the Strategic Goals

The Year Ahead

- **Strategic Communications Plan**
  - **Identify messages, audiences, and methods to raise awareness**
- **Action Plan**
  - **Early steps to towards achieving Strategic Plan goals.**
- **New OSTP requested Space Environmental Gap Analysis (SEGA)**
- **Begin development of new Implementation Plan in anticipation of Space and Solar Physics Decadal Strategy results**
- **Space Weather Enterprise Forum**
- **Space Weather Workshop**

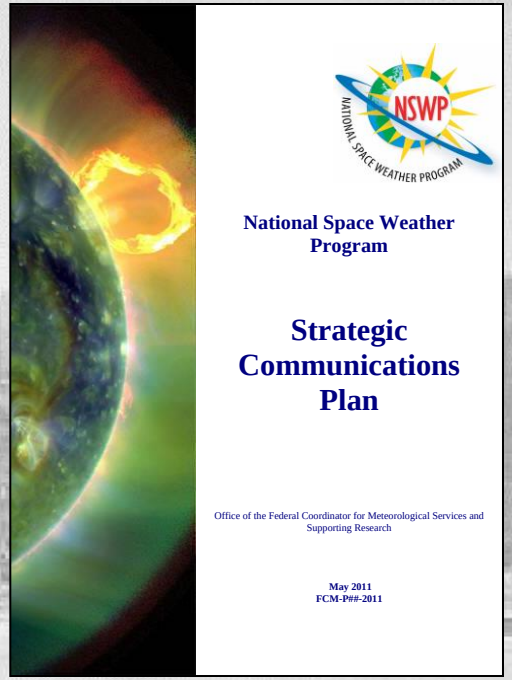


Courtesy NASA GSFC Stereo Program

Preparing for Solar Max

Strategic Communications Plan

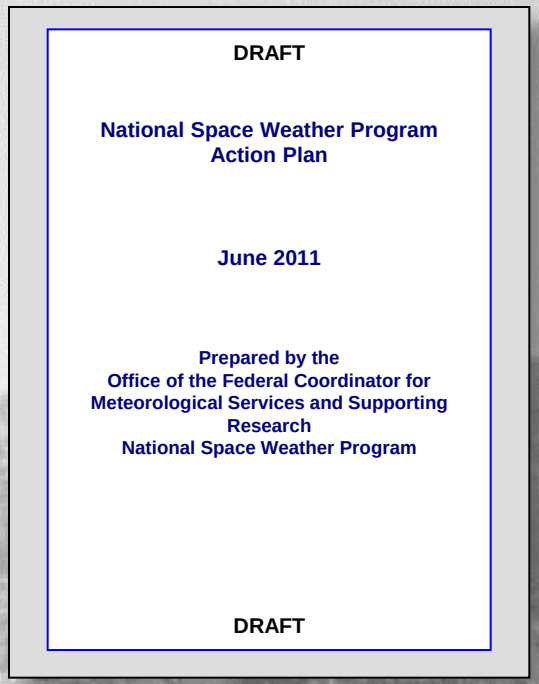
- **Formalize** plans to reach out to expand awareness of space weather and upcoming solar max
  - **Leverage** NSWP agency public affairs and legislative affairs activities
  - **Coordinate** for the most effective effort
- Identify target **audiences**
  - Public, private sector, academia, government
- Develop and deliver **coordinated messages**
- Identify resources, including professional and trade organizations
- Plan and develop **activities, materials, initiatives and actions** – TV, radio, print, journals, web sites, science fairs, etc.
- **Track** activities and **evaluate effectiveness**



Preparing for Solar Max

Action Plan

- **Immediate actions to address Strategic Plan goals and objectives**
- **High payoff, early actions to prepare for solar max**
- **Building-block modular approach, in combination with Strategic Communications Plan and the 2012 Decadal Strategy results and recommendations**



Preparing for Solar Max

Space Environmental Capabilities Assessment (SEGA)

- **2010 NASA Authorization Act Section 809**
  - **Acknowledged NSWP and importance of Space Weather.**
  - **Required OSTP to report on data sources and systems to observe and forecast space weather now and ten years hence.**
- **Recommend NSWP Council establish a new Joint Action Group (JAG) to develop the assessment and reports**
  - **JAG/SEGA will begin meeting/working in May**
  - **Interim response due by the end July.**
  - **Final report by the end of September.**

Pulling it All Together - 2012

New Implementation Plan

- **Specific actions and activities to achieve the Strategic Plan goals and objectives**
- **Incorporates the Strategic Communications Plan, Action Plan, and the results of the National Research Council's Decadal Strategy for Solar and Space Physics (Heliophysics)**
- **Plan to publish in 2012 following the decadal strategy report**

Strategic Communications Plan

Gap Analysis

Action Plan

Decadal Strategy Results

Strength in Community

SWEF 2011

- **When:** June 21, 2011
- **Where:** National Press Club
  Washington, DC
- Hosted and organized by the NSWP Council
- **Objectives:**
  - Assess progress achieving the NSWP Strategic Plan goals and objectives
  - Describe plans for moving forward to address priorities
  - Explore ways to improve our ability to communicate the relevancy of space weather to the public and new constituents
- **Watch for announcements and open registration at**
  http://www.nswp.gov/swef/swef_2011.html

QUESTIONS?

Visit our web site at
http://www.ofcm.gov

Strategic Goals Provide Framework

- Discover and understand the physical conditions and processes that produce space weather and its effects.
- Develop and sustain necessary observational capabilities.
- Provide tailored and accurate space weather information where and when it's needed.
- Raise national awareness of the impacts of space weather.
- Foster communications among government, commercial, and academic organizations.

Available at http://www.ofcm.gov/nswp-sp/fcm-p30.htm