



# NOAA Space Weather Prediction Center

The Nation's official source of space weather alerts, watches and warnings.  
Safeguarding the Advanced Technologies of the World



The Space Weather Prediction Center (SWPC) supports a wide variety of customers including:

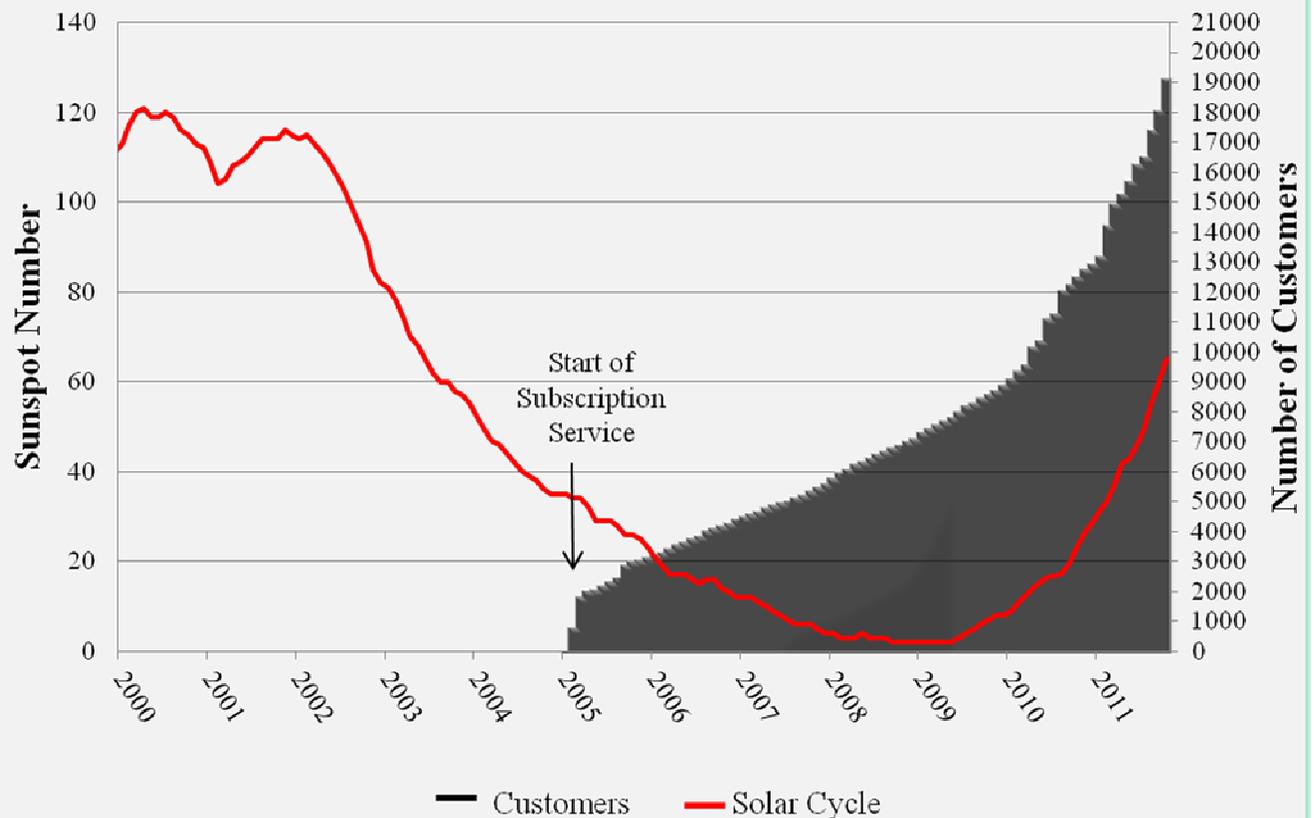
- Electric power grid operators
- HF radio operators
- Commercial airlines
- Emergency managers
- Oil exploration
- Satellite navigation (GPS)

SWPC provides space weather support and services to a number of government agencies including:

- NASA
- DoD
- FAA
- FEMA.



## Customer Growth SWPC Product Subscription Service



Dramatic customer growth and demand for new types of products and services are driven by rapid advances in the use of new types of advanced technologies and require flexible, agile and heavily leveraged deployment strategies for operations observing systems.



# Space Weather Prediction Center



Space Weather Forecast Office

- **Three primary capabilities**

- ***The Space Weather Forecast Office:***

- The Nation's official source of space weather alerts, watches, and warnings.
- Operating 24/7 and is the heart of the NOAA Space Weather Prediction Center.

- ***Development and Transition:***

- Making research models “operational” by improving reliability and functionality

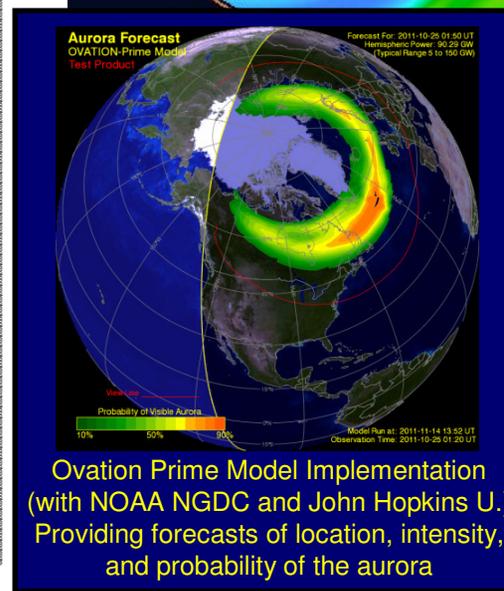
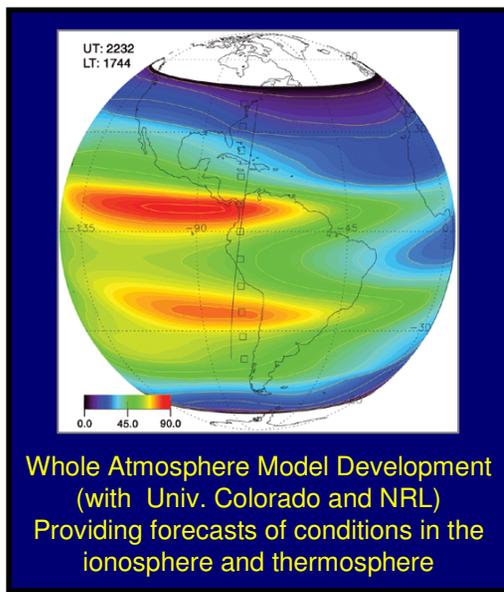
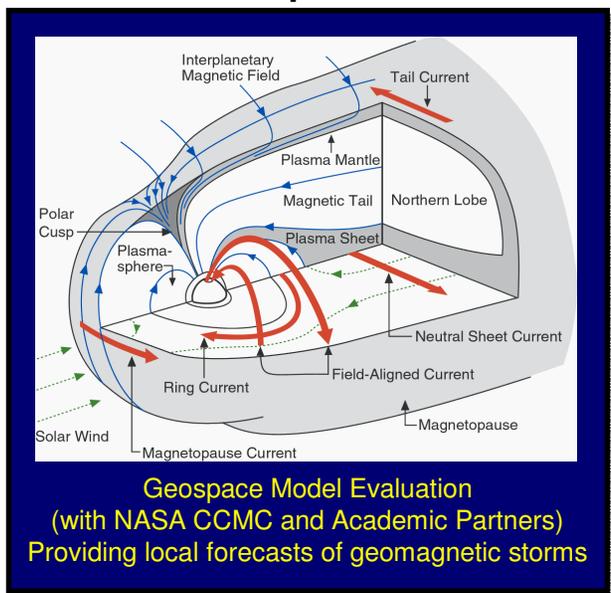
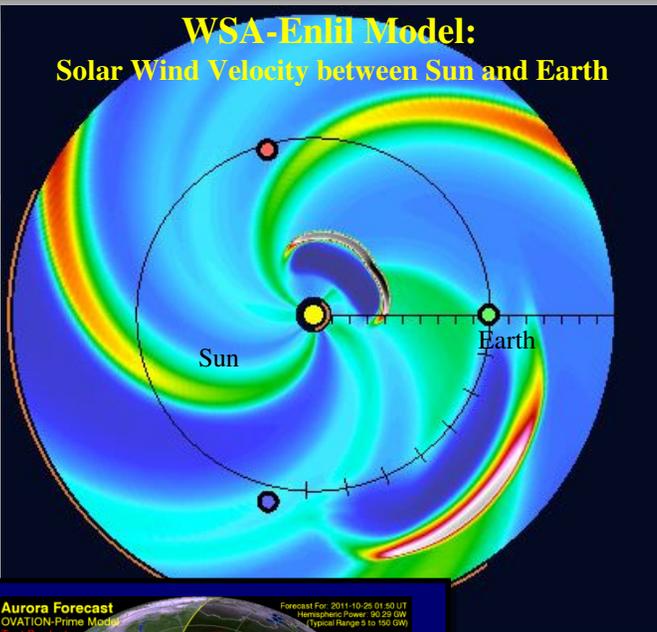
- ***Space Weather Prediction Test bed:***

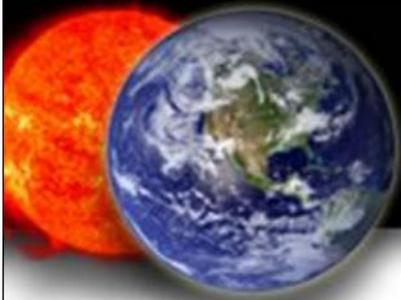
- Identifying new models, data, and products that have been developed in the scientific community and preparing them for transition from Research to Operations (R2O)
- Identifying the most urgent needs of the customers of space weather services and communicating those Operational requirements back to the Research community (O2R).



# New Modeling Capabilities

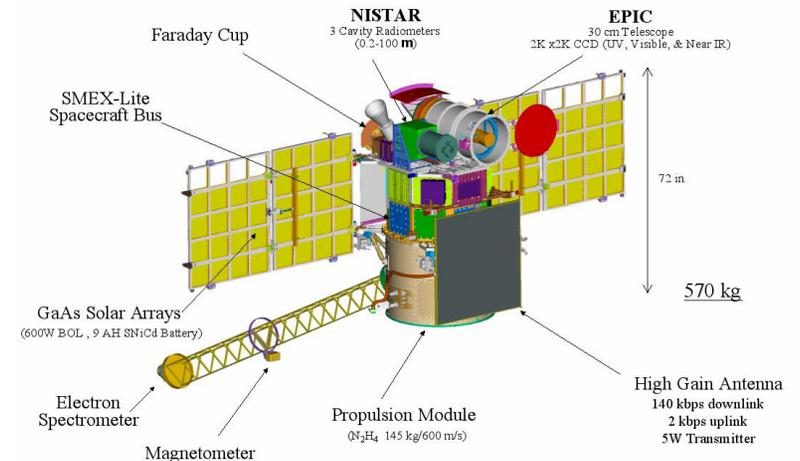
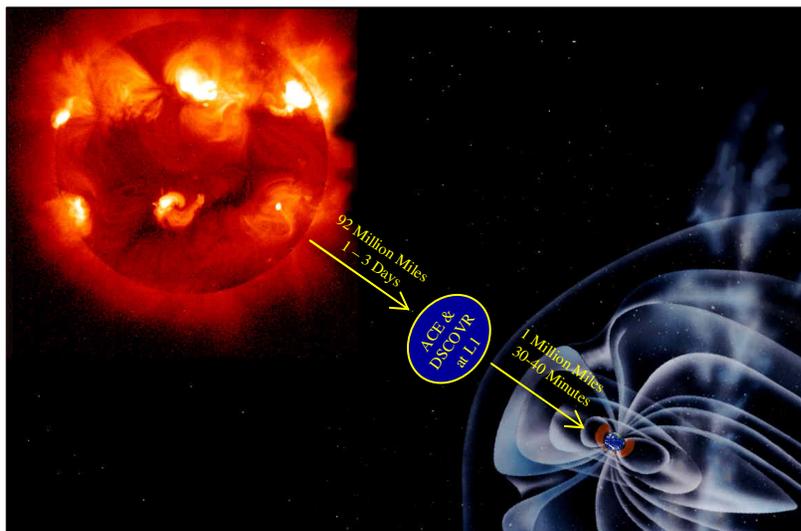
- **Wang-Sheeley-Arge Enlil Model**
  - *The first operational physics-based, space weather model*
  - *Now running on the computers of the National Weather Service*
    - Extensive support from the NSF CISM and NSO programs, the NASA CCMC, SOHO, and Stereo Programs, the Air Force and Navy, the University of Colorado, and NCAR .
  - *Providing greatly improved one-to-three day forecasts of space weather storms*
- **Additional space weather modeling activities:**





# Insuring Continuous Observations

- **The DSCOVR Satellite**
  - *To provide critical solar wind data from the L1 point between the Earth and Sun*
    - Highly reliable warnings of impending space weather storms.
    - Critical data to drive space weather models
  - *Replaces the aging ACE satellite (10 years past design-life)*
  - *A collaboration between NOAA, NASA, and the Department of Defense*
- **Current DSCOVR Launch Date: January 2014**



\* Coronagraph still under consideration