

## **Interagency and international collaboration in the U.S. National Space Weather Program: A NOAA Space Environment Center perspective**

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### **Abstract**

As ESA and its member nations plan space weather efforts in Europe, considering the United States experience might be instructive.

The multi-agency U.S. National Space Weather Program (NSWP) “encompasses all activities necessary for the timely specification and forecast of natural conditions in the space environment that may have an impact on technical systems and human life or health”. The program officially started in August 1995 with the publication of the Strategic Plan, followed by an Implementation Plan in January 1997, which was updated in July 2000. The steering group, responsible for tracking the program, is the Committee for Space Weather, a multi-agency organization, composed of representatives from NSF, NASA, and the Departments of Commerce (NOAA), Defense (USAF and Navy, primarily), Transportation (FAA), Energy, and Interior (USGS). Since the creation of the National Program, a number of multi-agency collaborations have resulted in enhancements to research, to modeling, and especially to space weather data available to service providers. One example is NASA’s ACE satellite. NOAA, working with NASA and the USAF, had the “store and dump” satellite modified to broadcast Real Time Solar Wind (RTSW) also, then set up an international team of ground tracking stations (RAL in England, CRL in Japan, ISRO in India, CNES in France, NOAA and USAF in USA) to track ACE 24 hours per day. As a result, real time ACE data are available from NOAA and are widely used around the world today. The success of the ACE interagency and international collaboration encouraged NASA’s space science division to establish the policy that all new missions must consider broadcasting, in a timely manner, their data which are of interest to space weather service providers. For example, STEREO will have a beacon mode, and all Living With a Star missions must consider their contributions to space weather services. The NSWP has helped NOAA expand its space weather sensors on the GOES and NPOESS series of satellites, planned to extend beyond 2010. The USAF and NOAA are currently working together to plan the next generation of instrumentation on these satellites, extending coverage to beyond 2020.

The National Space Weather Program is inclusive rather than exclusive. All service providers and system operators will gain when data, forecasts, and techniques are shared. With pleasure, NOAA looks forward to collaboration with the space weather efforts of ESA and its member nations.