



## Sun-Earth Day 2007

### Celebrating IHY (International Heliophysical Year)

For Sun-Earth Day 2007, we will engage a world-wide audience in the celebration of the International Heliophysical Year (IHY). Tremendous strides have been made as our satellites and ground-based observatories attentively monitor the Sun to understand the processes which govern the Sun's influence on our solar system. We will use the popular Sun-Earth Day framework to offer a series of coordinated events to promote and highlight the Sun, its connection to the Earth and other planets, and support the spirit of international collaboration. Planned activities for Sun-Earth Day 2007, "Living in the Atmosphere of the Sun – IHY," include:

- **A live broadcast of the Transit of Mercury** across the face of the Sun on November 8, 2006, via Internet and NASA-TV, and focusing on the science, technology, and history of the transit, as well as our most current knowledge of the Sun and space weather.
- **Space Weather Action Centers (SWAC).** Through SWAC, students develop scripts for their own regularly scheduled "News Reports" on space weather. Students "report" using inexpensive video editing software and/or school-based broadcast studios at NASA Explorer Schools. Content will be accessible through the SWAC website, containing all the cool resources to produce a successful report—software, sample scripts, video clips, sample reports, student guides, teacher guides, downloadable graphics, etc.
- **Solar Week,** a week of on-line curriculum and games for middle school students, focusing on the Sun. It includes a career-oriented day featuring women solar scientists to mentor and inspire young people.
- **Two live broadcasts of IHY-focused panel discussions by expert scientists** will be a great opportunity for museum and classroom use to highlight the excitement of the Year's celebration and fundamentals of space weather. The first broadcast, in February 2007, will feature two NASA missions. The second broadcast, in March 2007, will look at the impact of the Sun on other planets and on space weather. Also featured will be exciting multimedia student-generated space weather reports from classrooms and museums.
- **Digital "Solar Quilt" activity for students.** Students from all seven continents will incorporate their knowledge of the Sun and space weather into a quilt square of scientific and/or cultural significance and submit it on-line to become part of a "digital quilt."
- **National distribution of 15,000 Sun-Earth Day resource packets** with NASA mission materials and a space weather poster.

#### *Key Understandings for Sun-Earth Day 2007, "Living in the Atmosphere of the Sun - IHY."*

- o *We live in the atmosphere of a dynamic, magnetic star that interacts with the Earth and the planets beyond.*
- o *Magnetospheres and atmospheres of the Earth and other planets respond to space weather.*
- o *The Sun and its impact on the solar system can be understood through studies of universal processes that combine disciplines.*
- o *There is beauty, relevance, and significance in space science.*
- o *The Sun, solar system, and Universe beyond have always been important to humans of all cultures.*
- o *Human beings use technology (past, present, and future) to make discoveries about the Universe.*
- o *Humans who live and work in space, and technologies we all depend on, are affected by space weather.*

<http://sunearthday.nasa.gov>