

# SOURCES FOR ADDITIONAL INFORMATION

#### **Books**

Nearest Star: The Surprising Science of our Sun

by L. Golub and J. Pasachoff; Harvard University Press, Cambridge, MA, 2001, 267 pp. A popular-level book about the Sun written by two renowned solar scientists.

The Cambridge Encyclopedia of the Sun

by K.R. Lang; Cambridge University Press, Cambridge, England, 2001, 256 pp. A complete, modern guide to our nearest star, well-illustrated and explained, in a handsome, over-sized book.

Storms from the Sun: the Emerging Science of Space Weather

by M. Carlowicz and R. Lopez; Joseph Henry Press, Washington, D.C., 2002, 234 pp. A description of the active Sun and space weather and their effects on the Earth, written at a popular level with emphasis on specific effects of dynamic solar events on the Earth and society.

Space Weather

edited by P.L. Song, H.J. Singer, and G. L. Siscoe; American Geophysical Union, Washington, D.C., 440 pp, 2001 A collection of technical articles dealing with many aspects of space weather.

Effects of Space Weather on Technology Infrastructure

edited by I. A. Daglis; Kluwer Academic Publications, Dordrecht, the Netherlands. 334 pp. 2004. Review articles dealing with various aspects of the impact of space weather on human activities, from commercial aircraft to electric power systems, from a NATO workshop on this subject.

#### **Articles**

### The Sun: Living with a Stormy Star

by Curt Suplee; in National Geographic, July 2004, pp. 2-33. A current portrayal of the Sun, solar activity and space weather, illustrated as only the Geographic can with an awesome collection of diagrams and breath-taking pictures from space.

#### Living with a Variable Sun

by Judith Lean; in Physics Today, June, 2005, pp. 32-38. An easily-read and up-to-date review of solar variability and its effects on the Earth, told by an acknowledged expert in the field.

#### Shielding Space Travelers

by Eugene Parker; in Scientific American, March, 2006, pp. 40-47. A popular-level review of the problem of galactic cosmic rays in space travel, by the scientist who accurately foretold the existence and characteristics of the solar wind before it was first discovered.

# Some Recommended Web Sites

# http://heliophysics.nasa.gov/

A general description of NASA's program that keeps a round-the-clock watch on the Sun and its impacts on the Earth and its near environment, including a summary of current Sun-Earth spacecraft, planned or underway, with access to specific information about each of them.

# http://www.swpc.noaa.gov/

Up-to-the-minute information from NOAA's 24-hour Space Weather Prediction Center, including current information on solar activity and conditions in near-Earth space, space weather alerts and warnings that are disseminated worldwide, and current and predicted sunspot numbers for 11-year solar cycle #23, now ending, and #24, soon to be underway.

# http://srag-nt.jsc.nasa.gov/

Information regarding the monitoring of space-weather at the NASA Space Radiation Analysis Group at the Johnson Space Center, tailored to the specific needs of individual manned space flight missions, including a trove of summarized information on space shuttle missions currently planned or in progress and the current status of the International Space Station.

# http://umbra.nascom.nasa.gov/images/latest.html

Current, daily images of the solar disk, in color and enlargeable to full screensize portraying today's photosphere, chromosphere, transition region, corona, magnetic fields and vertical motions derived from Doppler images.

# http://climate.gi.alaska.edu/Curtis/aurora.html

A beautiful and enlightening collection of photographs of the aurora borealis taken in Alaska by a renowned expert, Jan Curtis.

#### http://www.scostep.ucar.edu

A series of delightfully drawn, up-to-date and expertly written introductory explanations of different features of the Sun-Earth system, presented in comic book form, each about 12 pages long. Ingeniously produced in Japan, in English and other languages, and sponsored by SCOSTEP, the International Scientific Committee on Solar-Terrestrial Physics. The most recent issue treats the subject of solar variability and climate. Try them; you'll like them. size;