

Planetary Wonderings
June Focus: Spitzer Space Telescope
By Mary-Frances Bartels, NASA Solar System Ambassador

Last month we looked at GALEX, a space telescope that views the ultraviolet part of the spectrum. This month we examine a complementary telescope to GALEX, the Spitzer Space Telescope which examines infrared emissions. The spectrum has been discussed in this column multiple times and infrared was specifically highlighted in November 2006. (This article may be accessed by visiting www.keeplookingup.net and clicking on "Planetary Wonderings" to get a list of past columns.)

The largest infrared telescope ever launched into space, the Spitzer Space Telescope (formerly SIRTf, the Space Infrared Telescope Facility) was launched on August 25, 2003. Since it sees infrared, it is able to peer into regions of space which are hidden from optical telescopes like Hubble. Most infrared radiation is blocked by the Earth's atmosphere necessitating a space telescope to view this part of the spectrum.

Spitzer is the final mission in NASA's [Great Observatories Program](#) - a family of four orbiting observatories, each examining the universe in different wavelengths of light (visible, gamma rays, X-rays, and infrared). Other missions in this program include the Hubble Space Telescope (featured in "Activity of the Month" in Dec. 08 *PW*), Compton Gamma-Ray Observatory, and the Chandra X-Ray Observatory (featured in Nov. 07 *PW*). Spitzer is also a part of NASA's [Astronomical Search for Origins Program](#), designed to provide information which will help scientists explore the origin of the universe, and how galaxies, stars and planets develop and form. Designed to last between 2.5 and five years, Spitzer has already exceeded expectations. In May it ran out of helium coolant, so mission specialists are recalibrating its instruments to run in what is known as "warm mode."

The space observatory is named for Lyman Spitzer, Jr. the renowned Princeton University astrophysicist of the 20th century who was the first person to propose the idea of placing a large telescope in space and the driving force behind the development of the Hubble Space Telescope.

Learn more about Spitzer at the sites listed in the "Sources" section or on Facebook at <http://tinyurl.com/kvfg5r>.

Resource of the Month: On this infrared activities page can be found numerous demonstrations for all ages of infrared light and how it behaves.
<http://www.ipac.caltech.edu/Outreach/Edu/activities.html>

Activity of the Month: I featured the Galileoscope back in January's article. If you have not already ordered one, this is the **absolute last chance** to get an easy-to-use telescope for the very attractive price of \$15 plus shipping. Galileoscopes are replicas of the one used by Galileo, but because they use modern optics, they can see objects better than the original. These scopes are **not** being sold for a profit, the sales and distribution of which are being run by volunteers who are promoting observing as part of the International Year of Astronomy. I do not get any kind of "kickback" for promoting them. More info may be found at <https://www.galileoscope.org/gs/>.

Suggestions, questions, corrections, and comments about “Planetary Wonderings” are welcomed and may be directed to stargazer @ keeplookingup.net (remove spaces). Past columns may be found at www.KeepLookingUp.net (click on “Planetary Wonderings” on the right side of opening screen) and at <http://www.freelists.org/archives/astronomyed/> (columns from Jan. 2007 to the present).

Remember to *keep looking up!*

Sources (not already mentioned in the article): <http://www.spitzer.caltech.edu/about/index.shtml>
http://www.nasa.gov/mission_pages/spitzer/main/index.html