

**Planetary Wonderings**  
**October Focus: Mars Encore**  
By Mary-Frances R. Bartels, NASA Solar System Ambassador

For years Mars has held a special fascination for mankind, and its study continues today. This month marks the 71<sup>st</sup> anniversary of the Mercury Theatre's airing of a dramatization of "The War of the Worlds," also known as the "Panic Broadcast." Because of where Earth and Mars are in their orbits now, this month also just so happens to be the last opportunity to launch vehicles to Mars for the next two years. Mars has been specifically covered in this column previously (Oct. '06, Dec. '06, and May '08), but let us take a fresh look at earth's second closest neighbor.

First off, let's see where the red planet is in the night sky. True night owls can enjoy viewing Mars this month. Towards the beginning of the month it rises around 1:00 AM and sets around 3:40 PM. It is southeast of the star Pollux in the constellation of Gemini, and is moving into the constellation of Cancer.

Mars enthusiasts might want to view the latest photographs from Mars at [http://hirise.lpl.arizona.edu/releases/sept\\_09.php](http://hirise.lpl.arizona.edu/releases/sept_09.php). Other pictures are available on this website from the High Resolution Imaging Science Experiment aboard the Mars Reconnaissance Orbiter. Some are even in 3-D. The MRO, launched in 2005, just recently discovered water ice on Mars in the mid-latitudes. Previous to this it had only been found in the polar regions.

Readers of this column are probably very familiar with NASA's Spirit and Opportunity rovers which launched in 2003 and are still in operation. But, what about future missions? The following are just a sampling of what is on the horizon for Mars exploration.

Oct. 6 was to be the launch date for the Phobos-Grunt and YingHuo-1 missions. The first is a Russian mission to study Mars and return samples of soil from Mars's moon Phobos to earth (*grunt* is the Russian word for *soil*). It will also carry a tiny laboratory of microbes to test their ability to survive the rigors of space. The latter is a Chinese Mars orbiter whose name means *firefly*. Only recently was it announced that these missions have been delayed until the next launch opportunity in 2011.

Mars fans can send their names to their favorite planet via the Mars Science Laboratory at <http://tinyurl.com/d3q389>. Originally scheduled to launch this month, the MSL is now due to launch in the fall of 2011. MSL, NASA's next Mars rover mission, will try to ascertain the planet's habitability.

Beyond 2011 are planned several Scout missions which could put balloons and airplanes into the atmosphere on Mars. One of them, Maven, will study the Martian atmosphere. In addition to the Scout missions, a Mars Sample Return and Astrobiology Field Laboratory missions have been proposed.

**Resource of the Month:** IEEE's *Spectrum* magazine's June issue extensively covered Mars exploration. Hard copies of this issue might be available at local libraries. Those unable to find a physical copy may read the articles online at <http://www.spectrum.ieee.org/magazine/65391>.

**Activity of the Month:** Celebrate the UN-declared World Space Week Oct 4-10 with classroom activities from [http://www.worldspaceweek.org/teacher\\_activity\\_guide.html](http://www.worldspaceweek.org/teacher_activity_guide.html) .

**Administrative Note:** Last month marked the fourth anniversary of “Planetary Wonderings.” A lot of educational ground has been covered in the nearly 50 columns written. Back in August I wanted to gage the effectiveness of this column. Since the Sunbury Home Educators newsletter has been my main distribution instrument, I sent out a survey to those readers asking for input. The total number of responses was less than 10% of the possible readership, not nearly enough, I believe, to come to a reasonable conclusion. While some of the individual responses were very positive and encouraging, these were not sufficient for me to justify the time spent preparing for and writing 12 columns a year. I could not bring myself to cease writing “Planetary Wonderings” altogether, so have arrived at a compromise of sorts. Starting with this issue, “PW” will appear bi-monthly. Its format, frequency, and circulation method are still subject to change.

Also, I want to encourage those that receive this column through **any means other than** AstronomyED at [freelists.org](http://freelists.org) to subscribe to that list. Membership status in SHE for both myself and any newsletter readers is subject to change, so subscribing to AstronomyED will ensure continuity in receiving the columns. Moreover, through AstronomyED I also distribute space-related information and opportunities pertinent to both educators and students alike that I do NOT post to the SHE newsletter. This information comes from NASA Education and other sources. E-mail volume on AstronomyED, an “announcement only” list, is fairly low, so it will not clog e-mailboxes. To subscribe to Astronomy for Educators send an e-mail to [AstronomyED-request@freelists.org](mailto:AstronomyED-request@freelists.org) with the word *subscribe* in the subject.

Suggestions, questions, corrections, and comments about “Planetary Wonderings” are welcomed and may be directed to [stargazer @ keeplookingup.net](mailto:stargazer@keeplookingup.net) (remove spaces). Past columns may be found at [www.KeepLookingUp.net](http://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 previously mentioned): <http://www.planetary.org/programs/projects/life/20090921.html>  
<http://marsprogram.jpl.nasa.gov/msl/news/whatsnew/index.cfm?FuseAction=ShowNews&NewsID=57>

JPL News release 2009-148 dated Sept. 24, 2009

<http://mars.jpl.nasa.gov/missions/future/futureMissions.html>