

Planetary Wonderings

March Focus: Getting Started, Part II and Airbags in Space

By Mary-Frances Bartels, NASA JPL Solar System Ambassador

As stated last month, I was asked to discuss getting started in astronomy. I gave a few suggestions and said that I would continue this month where I will discuss more resources to help neophytes get started with observing.

First off, observing in Ohio can be a bit of a challenge. Those lucky enough to be away from cities, thus away from a lot of light pollution (light pollution comes from street lights and the like and causes the night sky to not be dark, thus obliterating fainter sky objects) still must contend with Ohio's far-from-optimal weather (lack of many clear nights) and abundance of trees (block view of the sky). Even so, hardcore Ohio astronomy buffs who do not wish to travel long distances can still take a small peek at the awesome mysteries beyond our atmosphere.

So, how does one find out what there is to see in tonight's sky? Surfing the internet reveals podcasts and other resources to help us in our quest. Since I do not own a portable device to play such recordings outside, I downloaded a few podcasts to the computer and listened at my desk. As I only have a very slow dialup connection, downloading proved to be challenging. The California Academy has a quarterly program about 18 minutes long that discusses typical night sky objects --- planets, stars, constellation & more. Here is the link: <http://www.calacademy.org/podcasts/>; look for "Sky Tour." An RSS feed is also available. "Sky Tonight" is run by *Sky and Telescope* magazine and has short six minute monthly programs at <http://skytonight.com/observing/podcasts>.

At http://hubblesite.org/explore_astronomy/ one may find a monthly audio-visual presentation (look for "Tonight's Sky") as well as a weekly podcast. Please note that the AV show is in Flash, so is not easily viewable for internet users with dialup access.

For those less technically-interested you may find information on how to find the various constellations at <http://www.sky-watch.com/skytour/intro.html>. The site is no longer maintained as the author has passed away. Still, feel free to "walk through" the constellations as Ed Ehrlich wrote reasonable descriptions on these pictures in the night sky.

I learned about most of the previous information sources from helping my son Ryan with his science schoolwork. Switched-on-Schoolhouse 7th Grade Science has a nice unit on astronomy. It does have a few inaccuracies, but overall is a decent curriculum.

Everyone has heard of using airbags in cars to protect occupants during a crash. Did you know that airbags have been and are now used in landing some spacecraft, both manned and unmanned? On February 20 I had the privilege of seeing John Glenn speak about his historic Friendship 7 mission 45 years ago. He mentioned that his craft had an airbag between the main craft and heat shield that helped cushion his landing. I did not remember airbag technology being that old. I knew that the Mars rovers, Spirit and Opportunity, used airbags to land safely on Mars. Unlike car airbags that deploy and deflate immediately, the Mars rover airbags deployed and stayed inflated allowing the craft to bounce multiple times before coming to a rest. I soon learned that airbag technology was pioneered by the Russians a few years prior to Glenn's flight and have

been used throughout the space programs. I have not had a lot of time to investigate this further, but find it fascinating nevertheless.

Do not miss the first lunar eclipse in 2 ½ years! Though best viewed in Europe and Africa, the East Coast and Midwest still will see part of the “show.” On March 3 the moon will rise at 6:20 PM, one minute from the exact halfway point of the eclipse, meaning that the moon will rise totally eclipsed. Totality will end at 6:58 PM, and the moon will be out of the Earth’s shadow entirely by 8:12 PM. Unlike solar eclipses where the moon appears black, during total lunar eclipses, the moon can turn brown, orange, crimson, and brick red.

Next month I’ll continue the “Getting Started” series with information on local clubs and activities.

Resource of the Month: Costco --- yes, the warehouse store. A few weeks ago I noticed that they sell *Sky and Telescope* magazine. Though my favorite magazine in high school was *Astronomy*, reading S&T sure brought back fond memories! To astronomy fans either magazine is a feast for the mind and eyes.

Activity of the Month: Use any of the resources mentioned in this article and learn at least five constellations. If conditions permit, go outside and try to find them in the night sky.

Suggestions, questions, and comments about “Planetary Wonderings” are welcomed and may be directed to stargazer @ keeplookup.net.

Remember to *keep looking up!*

Source: <http://www.gather.com/viewArticle.jsp?articleId=281474976916888> (eclipse)