



# Sky Watch

Issue #5  
June 06

## The Newsletter of the Brevard Astronomical Society

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### Club News:

#### **1: Astromart.com -**

There has been some email traffic recently with concerned buyers regarding the customer service of the company. Be careful if you use the site.

#### **2: BAS Website -**

Mark Jones continues to improve the web site on almost a weekly basis by adding helpful links and information about a variety of subject areas. If you haven't seen it lately, take a look.....  
*Great job Mark!!*

### Next BAS Star Party:

Harmony; 27 June  
Contact David Guibert for additional information  
[PlutoVIP1@cfl.rr.com](mailto:PlutoVIP1@cfl.rr.com)

### Moon Phases:

Full: June 11<sup>th</sup>



New: June 25<sup>th</sup>



### ***What's in the Sky in June?***

There will be many good overhead passes of the HST in June, but not for the ISS. Check: [www.heavens-above.com](http://www.heavens-above.com) for specific pass times and coordinates.

There is so much to see in the sky in June, you may be better served planning your observation evening, or morning as the case may be.

The Constellations Leo, Virgo, Coma Berenices, and Canes Venatici transit earlier in June, so viewing will have to be before midnight and toward the west. These are best viewed from a dark site. If you catch a good sky, they offer a plethora of galaxies. During a crisp May evening, I was able to find M64, the Blackeye galaxy (App Mag 9.00), M63, the Sunflower galaxy (App Mag 8.5), the tail in the Whirlpool Galaxy, M51, and M104, the Sombrero Galaxy (in the constellation Corvus to the south), all from my backyard in Satellite Beach!

Later in the evening, Hercules passes over where the view of the globular cluster M13 is spectacular! Toward the southeast, the constellation Scorpio rises at 7pm, and transits near midnight by mid June. The globular M4 is approx 1 deg from the super-giant star Antares.

As the evening gets later the western most star of the summer triangle Vega rises within Lyra. The constellation Lyra, although small as constellations go, has many things to view including a series of doubles, and double-doubles, and it's greatest gem, M57 the Ring Nebula.

For the late night viewers, Sagittarius transits approx 2:30am to the south. For viewing prior to midnight, it is best to wait a month or two.

### **PLANETS:**

**Mars** continues to move closer to the planet **Saturn** in June. On the 17<sup>th</sup>, the planets will be in conjunction slightly east of M44, the *Beehive Cluster*. This will be the closest the two planets have been since 1987!

**Jupiter**, the king of planets is now visible virtually all evening, rising at about 6pm by mid month, and transiting around 11pm. It can be found in Libra in the east-

south-east sky. A fantastic and most rewarding observation for both the novice and well trained eye alike.

*For the dawn watchers:*

**Uranus & Neptune** remain visible in the east / southeast sky. Neptune (Capricorn) rises at approx midnight, and Uranus (Aquarius) at approx 1am by mid month, but with a full moon on the 11<sup>th</sup>, these planets won't be visible until toward the end of the month.

**Venus** rises at around 4:30am by mid June. On the 23<sup>rd</sup>, Venus shares the sky with the moon and M45 Pleiades in the pre-dawn hours toward the east.

### **Outreach News:**

The Indian Guide Star Party was held at KARS Park on May 19<sup>th</sup>; BAS supported Mike Cressy & the KSC club.

*From Oscar Sifuentes:*

BAS & KSCAA had about 8 or 10 scopes of all types. It was semi cloudy but we were still able to see the normal Planets - Saturn, Jupiter, Mars, We saw a few different double stars, a few globular clusters. The kids arrived at the site about an hour late, but they were so happy to be there, as for the count I'm going to say about 100 persons were at the event. I would like to thank all the telescope volunteers for taking time from their busy schedules to set up their telescopes and show the Kids a good time!

No additional outreach events are currently planned for June.

### **BCC Observatory**

The BCC Observatory continues to be in need of volunteers from BAS. Please check your schedule to see if you can help out any weekend. The coordinator is **Chuck Greenwood**.



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## Upcoming BAS Meetings & Agenda:

**June 21st** – The June BAS meeting is being held at FIT in Melbourne at the hosting of the Melbourne Astronomy Society (MAS). Dr. Mark Adler, who was the mission engineer on Cassini to Saturn and had a big role in the Mars Exploration Rover mission, is now heading the JPL program in advanced concepts for future missions will be speaking at FIT to the MAS/BAS. Location is the FIT Physical Sciences Building (room 140) (map on the BAS web site).

## Summary of Past Meetings and Events:

May 17th meeting –

- ❖ John Norczyk offered to teach a “mirror making” class to those interested. He demonstrated the procedure, materials and approx time required. No time table has been set to begin yet.
- ❖ Gary Scott posted pics from Astronomy day 2006 on the BAS web site.
- ❖ Gary mentioned that a “Messier club list” will be sponsored by the club if one wishes to get a BAS “proclamation” that they observed all 110 objects.

## Telescope News:

The BAS currently has two telescopes for use by club members. Contact Gary Scott for additional information.

## For Sale:

Meade 8" Starfinder Dobsonian Telescope  
Meade Magellan I telescope comp system (2 included)  
Telrad finder sight  
Various eyepieces & Barlow lens. Collimating eyepiece  
Moon filter  
Value worth \$1500  
Sell for \$500

### Contact:

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## Featured Science Article:

<http://www.universetoday.com/>

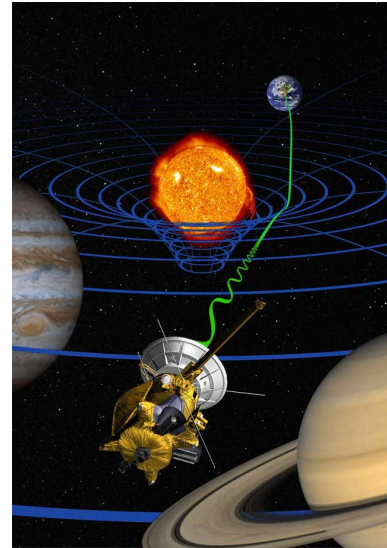
### Finding a Fourth Dimension

Scientists at Duke and Rutgers universities have developed a mathematical framework they say will enable astronomers to test a new five-dimensional theory of gravity that competes with Einstein's General Theory of Relativity. [The two scientists] base their work on a recent theory called the type II Randall-Sundrum braneworld gravity model. The theory holds that the visible universe is a membrane (hence "braneworld") embedded within a larger universe, much like a strand of filmy seaweed floating in the ocean.

The Randall-Sundrum braneworld universe model (named for its originators) provides a mathematical description of how gravity shapes the universe that differs from the description offered by the General Theory of Relativity. [It] has five dimensions -- four spatial dimensions plus time -- compared with the four dimensions -- three spatial, plus time -- laid out in the General Theory of Relativity.

The braneworld theory predicts that relatively small "black holes" created in the early universe have survived to the present. The black holes, with mass similar to a tiny asteroid, would be part of the "dark matter" in the universe. As the name suggests, dark matter does not emit or reflect light, but does exert a gravitational force. The General Theory of Relativity, on the other hand, predicts that such primordial black holes no longer exist, as they would have evaporated by now.

"When we estimated how far braneworld black holes might be from Earth, we were surprised to find that the nearest ones would lie inside Pluto's orbit.



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