

September 2009

## Inside this Issue

1

- September's Meeting
- 2009-2010 Calendar

2

- President's Corner
- June Meeting Minutes

3

- A Planet Named Easterbunny?

4

- S\*T\*A\*R Membership
- Celestial Events

5

- In the Eyepiece

6

- Moon Phases
- Jupiter Moons Calendar
- Great Red Spot Transits

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Edited by: Bob Fowler



## September's Meeting

The next meeting of S\*T\*A\*R will be on Thursday, September 3, 2009. Our program will be "*A Ray of Light in a Sea of Dark (Matter)*" with guest speaker Dr. Chuck Keeton of Rutgers University. All are welcome. The meeting will begin promptly at 8:00pm at the Monmouth Museum on the Brookdale Community College campus.

## Editor's Corner

Many thanks to Nancy McGuire, Dave Nelson, & Steve Fedor for contributing to this month's Spectrogram.

Reminder to pay membership dues \$25/individual, \$35/family. Donations are appreciated. Make payments to our treasurer Rob Nunn at the September meeting or mail a check payable to S\*T\*A\*R Astronomy Society Inc to:

**S\*T\*A\*R Astronomy Society**  
**P.O. Box 863**  
**Red Bank, NJ 07701**

## October Issue

Please submit articles and contributions for the next *Spectrogram* by September 25. Please email to [fowler@verizon.net](mailto:fowler@verizon.net).



M13 Globular Cluster in Hercules.  
Credit: HST

## Calendar

- ❖ Sep 3, 2009 - "*Past Saturn and 7 More Years to Pluto:*" New Horizons Mission, Michael Lewis, NASA Solar System Ambassador
- ❖ Oct 1, 2009 - "*Low Energy Routes to the Moon and Beyond*" by Dr. Edward Belbruno
- ❖ Nov 5, 2009 - "*The Discovery of Cosmic Microwave Background Radiation and its Role in Cosmology*" by Dr. Robert Wilson
- ❖ Dec 3, 2009 - TBA
- ❖ Jan 7, 2010 - TBA
- ❖ Feb 4, 2010 - ATM Night!
- ❖ Mar 4, 2010 - TBA
- ❖ Apr 1, 2010 - TBA
- ❖ May 6, 2010 - TBA
- ❖ Jun 3, 2010 - Annual Business Meeting



### A Parting Look

The STS-125 crew took a final look at the Hubble Space Telescope on May 19, 2009, prior to the telescope's release following a full week's work.  
Image Credit: NASA

## President's Corner

By Nancy McGuire

First I would like to start off my new tenure as president of S\*T\*A\*R astronomy club by giving heartfelt thanks to Gavin Warnes for the leadership and time that he has given to our club for the past 2 years. I have some big shoes to fill following the presidencies of Steve Walters and Gavin, the 2 presidents before me since I have been a S\*T\*A\*R club member.

I also offer my thanks to Dennis O'Leary, Rob Nunn, Steve Fedor, and Dan Pontone for their contributions last season as board members. They helped our club to keep going strong!

During the passing of the presidential baton, I was told that every president, in addition to their regular presidential duties, should bring an enhancement of their own to the club.

This is the International Year of Astronomy. For our club, I would like this to be the Year of Group Observing and Participation. My "mission" if you will, is to try to stimulate our members to get back into group observing.

My earliest and fondest memories of our club are those special nights observing with the group. Be it at Burke road, Ernie's old place up in the Catskills, John's house with the 25" or watching the lunar eclipse, or at the Stokes star parties, those observing nights hold special memories of discovery and camaraderie.

Logic tells me that we are members of a club rather than solo observers for several reasons. One of those reasons is to do things as a group and share our experiences.

I would also encourage volunteering, and active participation in club activities along with the fostering of relationships with newcomers to our club. Our members, old and new, are what make our club special! Let's teach and learn.

Nancy

## June Meeting Minutes

By Steve Fedor

The 2009 annual business meeting of S\*T\*A\*R Astronomy Club began at 8:10 pm on June 4th. There were 23 members and non-members in attendance. President Gavin Warnes chaired the meeting and began by welcoming one first time attendee, discussing the evening's agenda and upcoming events.

The meeting began with Allen Malsbury discussing the design and construction of his home brew digital setting circles.

Nancy McQuire then presented "Object of the Month." This month Nancy discussed M5 with details of the constellation Serpens Caput. The challenge object was NGC-6539 for which she showed a picture taken by STAR member Gordon Waite.

Dennis O'Leary, our resident NASA Solar System Ambassador, discussed NASA's plans to return to the moon with a permanent base. He also discussed the LCROSS and LRO missions. Dennis discussed the criteria for choosing a landing site as well as satellite observations searching for water. Numerous other technical aspects were discussed such as mobility, power requirements, geological diversity and resource utilization. The talk ended at 9:03.

Gavin Warnes then proceeded with "The Year In Review." Gavin discussed and showed pictures from our two picnics, the move to the Monmouth Museum, our new web site, the diverse topics of presentations and renovation of the 13 inch scope.

Gavin then handed out numerous certificates of appreciation to those members who went the extra mile and made significant efforts to further the club.

Rob Nunn then presented the Treasurer's Report. A complete copy can be obtained from Rob but essentially the club's general funds increased by \$359.28 for a total of \$4,695.82. The Observatory Fund balance is \$2,210.51.

Next up was the election of club officers. Gavin and Dennis have decided to retire this year as Pres. and V.P. respectively. The ballot was:

Nancy McQuire – President

Rich Gaynor – Vice President

Rob Nunn – Treasurer

Steve Fedor – Secretary

Dan Pontone – Member at Large

After a quorum was informally acknowledged, Jay Respler motioned to vote on all the candidates simultaneously. Dan Pontone seconded the motion. The vote was unanimous in favor of the election ballot.

Gavin and Dennis were then given a sincere and hearty round of applause for all their hard work over the last few years.

Gavin then continued with general club business as follows:  
-Gavin motioned to keep the dues at \$25. Steve Rich seconded the motion. The motion passed unanimously

-Gavin Motioned to keep the spending limit of the BOD at \$250. The motion was informally passed unanimously.

-Steve Rich motioned to continue the \$50. annual donation to the IDA. Rich G. seconded the motion. The motion was passed except for one vote.

Dan Pontone then indicated that Lee Baldwin donated a 4 inch reflector to the club and that it is available for loan.

Jay Respler stated that Venetia Phair, the person who named Pluto, had passed away.

Steve Rich indicated there would be an occultation of Antares by the moon on 6/6.

Ahmad Jrad announced he would like to retire as editor of the Spectrogram. Bob Fowler accepted the responsibility (Thanks Bob!)

Gavin announced the annual club picnic would be held on Sat. 8/15 at the Colts Neck Recreation Area and solicited volunteers to help organize and shop for supplies, food, etc. The following people volunteered: Nancy M, Dennis O., Gavin W., Jay R., Ken L., Steve F., Ann S., John A., Bob & Will L. (Thanks for your support!)

Dan Pontone mentioned he intends to take the club's 25 inch Obsession to the star party to be held at The Stone Tavern Farm in the Catskills on June 19th & 20th.

Steve Fedor mentioned that Ernie Rossi will be in NJ for a visit and invited everyone to join them for a pizza party at Sciorntinos Harbor Lights in South Amboy on 6/5.

The meeting was adjourned.

## A Planet Named Easterbunny?

You know Uranus, Neptune, and Pluto. But how about their smaller cousins Eris, Ceres, Orcus, and Makemake? How about Easterbunny?

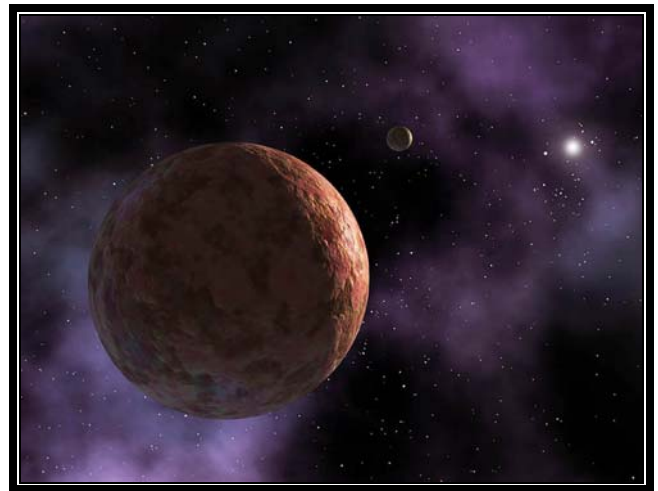
These are all names given to relatively large "planet-like" objects recently found in the outer reaches of our solar system. Some were just temporary nicknames, others are now official and permanent. Each has a unique story. "The names we chose are important," says Caltech astronomer Mike Brown, who had a hand in many of the discoveries. "These objects are a part of our solar system; they're in our neighborhood. We 'gravitate' to them more if they have real names, instead of technical names like 2003 UB313." Nearby planets such as Venus and Mars have been known since antiquity and were named by the ancient Romans after their gods. In modern times, though, who gets to name newly discovered dwarf planets and other important solar-system bodies? In short, whoever finds it names it. For example, a few days after Easter 2005, Brown and his colleagues discovered a bright dwarf planet orbiting in the Kuiper belt. The team's informal nickname for this new object quickly became Easterbunny.

However, ever since its formation in 1919, the International Astronomical Union (IAU) ultimately decides whether to accept or reject the name suggested by an object's discoverers. "Easterbunny" probably wouldn't be approved.

According to IAU guidelines, comets are named after whoever discovered them—such as comet Hale-Bopp, named after its discoverers Alan Hale and Thomas Bopp. Asteroids can be named almost anything. IAU rules state that objects in the Kuiper belt should be given mythological names related to creation.

So Brown's team started brainstorming. They considered several Easter-esque names: Eostre, the pagan mythological figure that may be Easter's namesake; Manabozho, the Algonquin rabbit trickster god.

In the end, they settled on Makemake (pronounced MAH-kay MAH-kay), the creator of humanity in the mythology of Easter Island, so named because Europeans first arrived there on Easter 1722. Other names have other rationales. The dwarf planet discovered in 2005 that triggered a fierce debate over Pluto's status was named Eris, for the Greek goddess of strife and discord. Another dwarf planet with an orbit that mirrors Pluto's was dubbed Orcus, a god in Etruscan mythology that, like Pluto, ruled the underworld.



*Artist's rendering of dwarf planet MakeMake, discovered around Easter 2005. Unlikely to gain acceptance their nickname Easterbunny, the discoverers named it for the god of humanity in the mythology of Easter Island.*

Brown says he takes "this naming business" very seriously and probably spends too much time on it. "But I enjoy it." More tales of discovery and naming may be found in Brown's blog [MikeBrownsPlanets.com](http://MikeBrownsPlanets.com).

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*

## Are you a S\*T\*A\*R Member?

S\*T\*A\*R is the proud owner of a **monstrous 25" Dobsonian Obsession reflector – which members can gain access to!**

Meetings are the first Thursday of each month, except July and August, at 8:00 PM at the Monmouth Museum on the Brookdale Community College campus. Meetings generally consist of lectures and discussions by members or guest speakers on a variety of interesting astronomical topics. S\*T\*A\*R is a member of United Astronomy Clubs of New Jersey (UACNJ), the Astronomical League (AL), and the International Dark Sky Association (IDA).

Memberships: ( ) Individual....\$25 ( ) Family...\$35

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Make checks payable to: S\*T\*A\*R Astronomy Society, Inc. and mail to P.O. Box 863, Red Bank, NJ 07701



## 2009 September Celestial Events

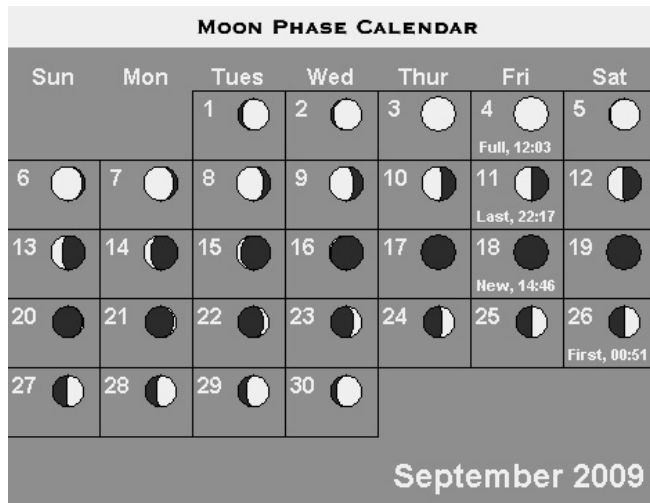
1	<b>Venus 1.2° SSW of Beehive cluster (M44)</b> (32° from Sun, morning sky) at 23h UT. Mag. -3.9.
2	<b>Moon near Jupiter</b> (evening sky) at 19h UT.
4	<b>Full Moon</b> at 16:03 UT.
10	<b>Moon near the Pleiades</b> (morning sky) at 17h UT.
12	<b>Last Quarter Moon</b> at 2:16 UT.
13	<b>Moon very near Mars</b> (morning sky) at 16h UT. Mag. +0.9. Occultation visible from NW Siberia, Lapland and Greenland.
15	<b>Moon near Beehive cluster (M44)</b> (45° from Sun, morning sky) at 11h UT.
16	<b>Moon at perigee</b> (closest to Earth) at 8h UT (364,053 km; 32.9').
16	<b>Moon near Venus</b> (29° from Sun, morning sky) at 16h UT. Mag. -3.9.
17	<b>Moon near Regulus</b> (24° from Sun, morning sky) at 0h UT.
17	<b>Saturn at conjunction</b> with the Sun at 18h UT. The ringed-planet passes into the morning sky.
18	<b>New Moon</b> at 18:44 UT. Start of lunation 1073.
20	<b>Mercury at inferior conjunction</b> with the Sun at 10h UT. Mercury passes into the morning sky.
20	<b>Venus 0.45° NNE from Regulus</b> (28° from Sun, morning sky) at 13h UT. Mags. -3.9 and +1.4.
20	<b>Moon near Spica</b> (26° from Sun, evening sky) at 18h UT.
22	<b>September equinox</b> at 21:22 UT. The time when the Sun reaches the point along the ecliptic where it crosses into the southern celestial hemisphere marking the start of autumn in the Northern Hemisphere and spring in the Southern Hemisphere.
24	<b>Moon very near Antares</b> (evening sky) at 6h UT. Occultation visible from E Asia and Japan.
26	<b>First Quarter Moon</b> at 4:50 UT.
28	<b>Moon at apogee</b> (farthest from Earth) at 4h UT (distance 404,432 km; angular size 29.6').
29	<b>Moon near Jupiter</b> (evening sky) at 22h UT.
All times Universal Time (UT). USA Eastern Summer Time = UT - 4 hours.	

## In the Eyepiece

Here is a list of objects for this month. This is reproduced from [www.skyhound.com](http://www.skyhound.com) with the kind permission of its creator and author of SkyTools Greg Crinklaw.

Object(s)	Class	Con	RA	Dec	Mag
<a href="#">Garnet Star</a>	Multiple Star	Cepheus	21h43m30.5s	+58°46'48"	4.2
<a href="#">Zeta Aqr</a>	Multiple Star	Aquarius	22h28m49.9s	-00°01'12"	3.7
<a href="#">LW Cyg</a>	Multiple Star	Cygnus	21h55m13.8s	+50°29'50"	9.2
<a href="#">M2</a>	Globular Cluster	Aquarius	21h33m28.4s	-00°49'39"	7.3
<a href="#">M15</a>	Globular Cluster	Pegasus	21h30m01.0s	+12°10'12"	7.3
<a href="#">Helix</a>	Planetary Nebula	Aquarius	22h29m38.4s	-20°50'13"	7.6
<a href="#">Humason 1-2</a>	Planetary Nebula	Cygnus	21h33m06.6s	+39°38'17"	12.7
<a href="#">NGC 7139</a>	Planetary Nebula	Cepheus	21h46m08.2s	+63°47'59"	13.0
<a href="#">NGC 7139</a>	Planetary Nebula	Cepheus	21h46m08.2s	+63°47'59"	13.0
<a href="#">Cocoon</a>	Diffuse Nebula	Cygnus	21h53m24.0s	+47°16'00"	10.0
<a href="#">IC 5217</a>	Planetary Nebula	Lacerta	22h23m55.7s	+50°58'00"	12.6
<a href="#">NGC 7094</a>	Planetary Nebula	Pegasus	21h36m53.0s	+12°47'19"	13.7
<a href="#">Stephan's Quintet</a>	Galaxy Group	Pegasus	22h36m00.5s	+33°57'57"	12.0
<a href="#">NGC 7354</a>	Planetary Nebula	Cepheus	22h40m20.9s	+61°17'39"	12.9
<a href="#">NGC 7354</a>	Planetary Nebula	Cepheus	22h40m20.9s	+61°17'39"	12.9
<a href="#">Einstein's Cross</a>	Gravitational Lens	Pegasus	22h40m32.5s	+03°21'48"	17.4

# Guides and Calendars



## GREAT RED SPOT TRANSIT TIMES

1	08:08;	18:04;	
2	03:59;	13:55;	23:50;
3	09:46;	19:42;	
4	05:37;	15:33;	
5	01:28;	11:24;	21:20;
6	07:15;	17:11;	
7	03:07;	13:02;	22:58;
8	08:53;	18:49;	
9	04:45;	14:40;	
10	00:36;	10:32;	20:27;
11	06:23;	16:19;	
12	02:14;	12:10;	22:05;
13	08:01;	17:57;	
14	03:52;	13:48;	23:44;
15	09:39;	19:35;	
16	05:31;	15:26;	
17	01:22;	11:18;	21:13;
18	07:09;	17:05;	
19	03:00;	12:56;	22:52;
20	08:47;	18:43;	
21	04:38;	14:34;	
22	00:30;	10:25;	20:21;
23	06:17;	16:12;	
24	02:08;	12:04;	21:59;
25	07:55;	17:51;	
26	03:46;	13:42;	23:38;
27	09:34;	19:29;	
28	05:25;	15:21;	
29	01:16;	11:12;	21:08;
30	07:03;	16:59;	

## Jupiter Moon Calendar

Here is a graphical depiction of the visible moons of Jupiter for the month of September 2009.

