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The Monthly Publication of the Westchester Amateur Astronomers

September 2009



Credit: [Mars Exploration Rover Mission](#), [JPL](#), [NASA](#)

Martian Meteorite

What is this strange rock on Mars? Sitting on a smooth plane, the rock stands out for its isolation, odd shape, large size and unusual texture. The rock was discovered by the robotic Opportunity rover rolling across Mars late last month. Pictured, Opportunity prepares to inspect the unusual rock. After being X-rayed, poked, and chemically analyzed, the rock has now been identified by Opportunity as a fallen meteorite. Now dubbed Block Island, the meteorite has been measured to be about $\frac{2}{3}$ of a meter across and is now known to be composed mostly of nickel and iron. This is the second meteorite found by a martian rover, and so far the largest. Vast smooth spaces on Mars and Earth can make large meteorites stand out. Opportunity continues its trip across Meridiani Planum on Mars and is on schedule to reach expansive Endeavour Crater next year.

Events for September 2009

➤ Monthly Meetings

“WAA Amateur Night”

Friday September 11th, 7:30PM

Andrus Planetarium

Hudson River Museum, Yonkers

WAA members will showcase their astrophotos and equipment. Let us know if you have something to show or tell. Please email the club with a brief idea of what you will be presenting. Free and open to public.

Note Corrected Time: September 11th meeting at HRM is from 7:30 pm to 8:30pm.

“NASA Kepler Mission”

Friday October 2nd, 7:30PM

Andrus Planetarium

Hudson River Museum, Yonkers

Join us for WAA'S first teleconference with a visual presentation of: NASA'S Kepler Mission. Our guest speaker is Edna DeVore, Deputy CEO and Director of the Education and Public Outreach program at the SETI Institute. Free and open to public.

➤ Starway to Heaven

Saturday, September 19th, 8:00-10:00PM

Meadow Picnic Area, Ward Pound Ridge Reservation, Cross River

This is our scheduled Starway to Heaven observing date for September, weather permitting. Free and open to the public. The scheduled rain/cloud date is September 26th.



Bob Kelly took this photo of the crescent Moon and Venus with a tripod mounted Canon A40 (2-second exposure, F8 with a 3X zoom).

Call: 1-877-456-5778 (toll free) for announcements, weather cancellations, or questions. Also, don't forget to periodically visit the WAA website at: <http://www.westchesterastronomers.org/>.

Renewing Members. . .

No update this month

Westchester Amateur Astronomers, Inc., a 501(c)(3) organization, is open to people of all ages with the desire to learn more about astronomy. The Mailing address is: P.O. Box 44, Valhalla, New York 10595. Phone: 1-877-456-5778. Meetings: Andrus Planetarium, Hudson River Museum of Westchester, 511 Warburton Ave., Yonkers. Observing at Ward Pound Ridge Reservation, Routes 35 and 121 South, Cross River. Annual membership is \$25 per family, and includes discounts on *Sky & Telescope* and *Astronomy* magazine subscriptions. Officers: President: Mike Virsinger; Vice President: Charlie Gibson; Vice President Programs (lectures): Pat Mahon; Treasurer: Doug Baum; Vice President Membership: Paul Alimena; Vice President Field Events: David Butler; Newsletter: Tom Boustead.

Articles and Photos

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.

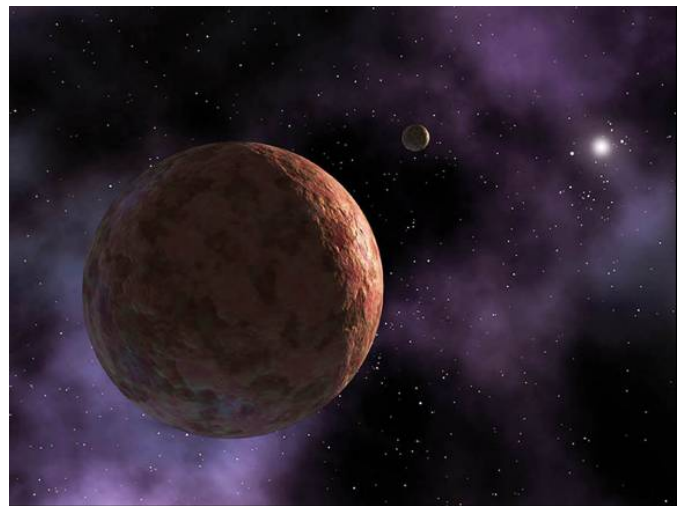
So Brown’s team started brainstorming. They considered several Easteresque names:

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.

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.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with NASA.



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.

August 15 2009 Telescope Work shop **By Dave Butler**

Usually we see telescopes at the workshop that have unusable mounts. Tonight the mounts were exceptional good. The sky was very transparent and dark for Pound Ridge, the Milky Way extended clearly across the sky with a clear division and extended nearly down to the southern horizon. Seeing was not as good but acceptable. Tom brought his Galileoscope; it is not a threat to department telescopes. It has a table top stand but the image jumps out of sight with the slightest touch. It has claps and a focuser but that was nullified by the jumping. The image of Jupiter was surprisingly dim but four moons could be seen. It wasn't stopped down like Galileo's was which would require a much better mount. Aiming it was like lining it up with a rifle sight and was quite satisfactory. Participants spotted the usual targets: double stars Mizar and blue-yellow Alberio, Jupiter with its four moons and quite a few bands, M13 (a gorgeous globular cluster), the Ring Nebula, the Dumbbell Nebula, the Double Cluster, the Andromeda and Whirlpool galaxies, M81 and the Cigar Galaxy (M82). Some less observed targets were the asterism the coat hanger, the Swan Nebula, and the Lagoon Nebula. The best of the night was on Larry's Melcam—the Pillars of Creation. We had so much fun showing of the sky we didn't pack up until after 12PM. Of course a few meteor streaks would occur and an occasional satellite would pass through the eyepiece.



Viewing at Camp Ramah 8/6/2009 **By Dave Butler**

The weather started out looking hopeless so I started with a slide show showing the relative sizes of the planets and naked eye stars. There were three telescopes available; the most unusual was Wendy Rosen's (who works at the camp). It was a table top ball scope with a f-ratio of maybe 3.5 and a clear aperture of maybe 114mm. Although this was the scope's first use, Wendy found it easy to use and enjoyable. Her targets were double stars Miza and Alberio, the Moon and Jupiter with its 4 visible moons.



The night became crystal clear. The Moon was one day passed full and overly bright at any power, I viewed it a 250x mostly on the right edge and bottom to examine all the small craters. Naked eye viewing was good showing large areas of ancient lava flows. The number of kids was much smaller than last year so were weren't overwhelmed. Mitch Mernick (Camp Counselor) as usually was a great host providing our every need. He stayed until it was time for his ham radio broadcast 11PM and took very nice pictures of the event for our newsletter.

Constellation Corner

By Matt Ganis

I've been writing these columns for the Westchester Amateur Astronomers for about 5 years now. I really enjoy it; I love to find interesting objects in the sky and point them out to people. This month is a "first" for me: Pointing out things that aren't there! (and before you try to guess, no its not an eclipse).

By far the brightest object in our late summer skies is the planet Jupiter. The planet is shining at a very impressive apparent magnitude of -3.0. Its well positioned all month, rising around 6:30 at night, staying in the sky all night and finally setting around 4:30am. The interesting thing about Jupiter this month is not what you see, but what you DON'T see. Around 12:45am on the evening of September 3rd there will be a short period when none of the four Galilean satellites of Jupiter will be visible! Such events are quite rare. During this event Europa and Ganymede will transit across the face of Jupiter, while Io and Callisto will be behind Jupiter or eclipsed by the planet's shadow. I don't think I've ever seen Jupiter without the moons present in the field of view. This is a "must see" event – it won't happen again until 2019!

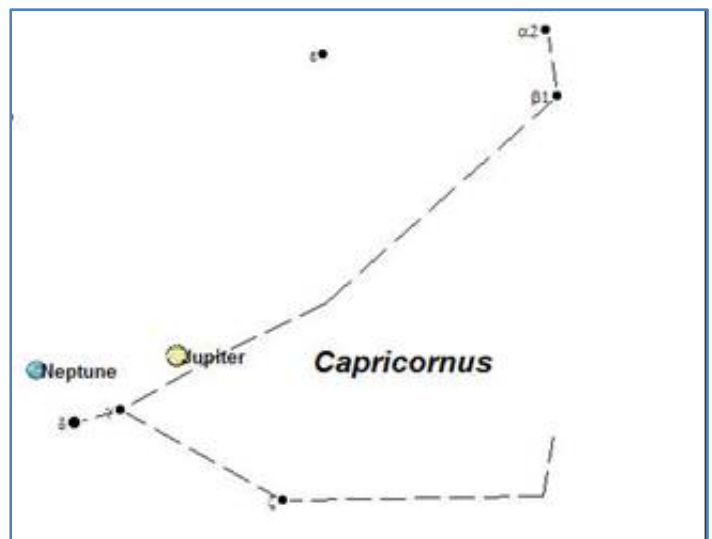
Throughout the month, Neptune will be closely following Jupiter in the sky. At the start of the month the two planets will be separated by about 5 degrees (with Neptune to the East of Jupiter). During September Jupiter will be moving a little further away from Neptune, due to its higher retrograde (westerly) motion. By the end of the month the two planets will be about 6.5° apart, both still in the constellation of Capricornus.

Here's a challenge for you: Can you spot Saturn's rings on the evening of September 4th?

Saturn will be at conjunction with the Sun on September 18, so it will be quite close to it all month. On September 1 the planet sets just over an hour after the Sun so it will be briefly visible very low, about 6° up half an hour after

sunset, in the western sky. It will daily get more difficult to see in the twilight.

The early setting of Saturn is unfortunate for those that like to observe the rings. The Earth passes through the plane of Saturn's rings on September 4th. Up to that date, and since February 1996, the southern face of the rings has been in view. After passing through Saturn's ring plane, the northern face will come into view and remain so until March 2025.



The ring plane crossed the Sun on August 10, so since that date the northern face of the rings has been lit. As a result on September 4th while the rings are likely to become invisible from the Earth – your challenge (should you choose to accept it) is to observe the shadow of the rings on the planet as they may be just visible as a very thin dark line across the planet's face!

Almanac

For September 2009 by Matt Ganis



Sep 4



Sep 11



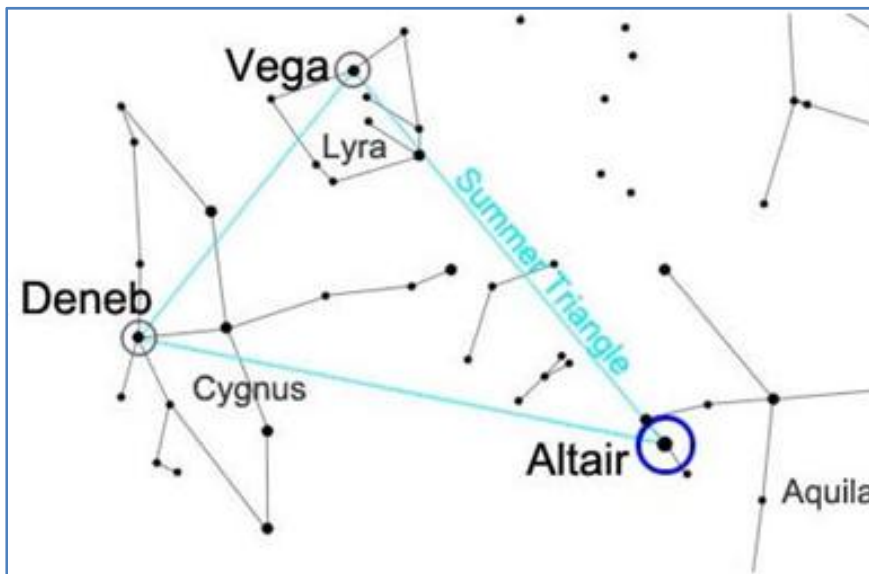
Sep 18



Sep 26

I just got back from a beach vacation in South Carolina. As I walked the beach at night looking for crabs with my daughter, I was greeted by a beautifully clear sky, full of stars. At this time of year, the Milky Way vividly crosses our evening skies, reminding me of a lovely story.

High in our summer skies, we can clearly see the famous asterism of the Summer Triangle. The summer triangle is made of three bright stars: Vega, Altair, and Deneb. These three bright stars are part of three different constellations: Lyra, Aquila, and Cygnus, respectively. Vega is the brightest of the stars at magnitude of +0.03, Altair is next brightest at magnitude +0.76, and Deneb is third (and dimmest) shining at a magnitude +1.25. The triangle made by the stars spans a large swath of sky, stretching about 38 degrees at its longest point.



There have been many stories, myths and legends told about the Milky Way across many different cultures. My favorite is a wonderful Japanese legend about a princess and a lowly cowherd.

The star Vega, represented the princess Orihime, who was well known for producing

brilliantly colored fabrics. Kengyu, the lowly cowherd is represented by the star Altair.

As the story goes, after meeting each other the two lovers received divine permission to marry, whereupon both abandoned their occupations to devote themselves to each other. This angered the gods, who decided to punish the lovers by separating them on opposite sides of the heavenly river (represented by the Milky Way) and sending them back to their original jobs. The distraught couple however, received permission from the gods to meet each other for one night each year. That special night is July 7. In Japan, the evening of July 7th has evolved into a young-people's holiday called Tanabata. Prayers are offered for clear skies so that Orihime and Kengyu, the star-crossed lovers can be reunited in celebration of the holiday.

While we're "in" this part of the sky, If you'd like to see another interesting asterism, look between these two stars with a pair of binoculars for the "Coathanger" asterism or Brocchi's Cluster. This wonderful little asterism is made up of ten stars ranging from fifth to seventh magnitude which form the conspicuous Coathanger, a straight line of six stars with a "hook" of four stars on the south side. An additional thirty or so fainter stars are sometimes considered to be associated as well. The asterism can be seen with the naked eye as an unresolved patch of light, but binoculars or a telescope at very

low power are needed in order to view the Coathanger. It is best found by slowly sweeping across the Milky Way along an imaginary line from the bright star Altair toward the even brighter star Vega. About one third of the way toward Vega, the Coathanger should be spotted easily against a darker region of the Milky Way.