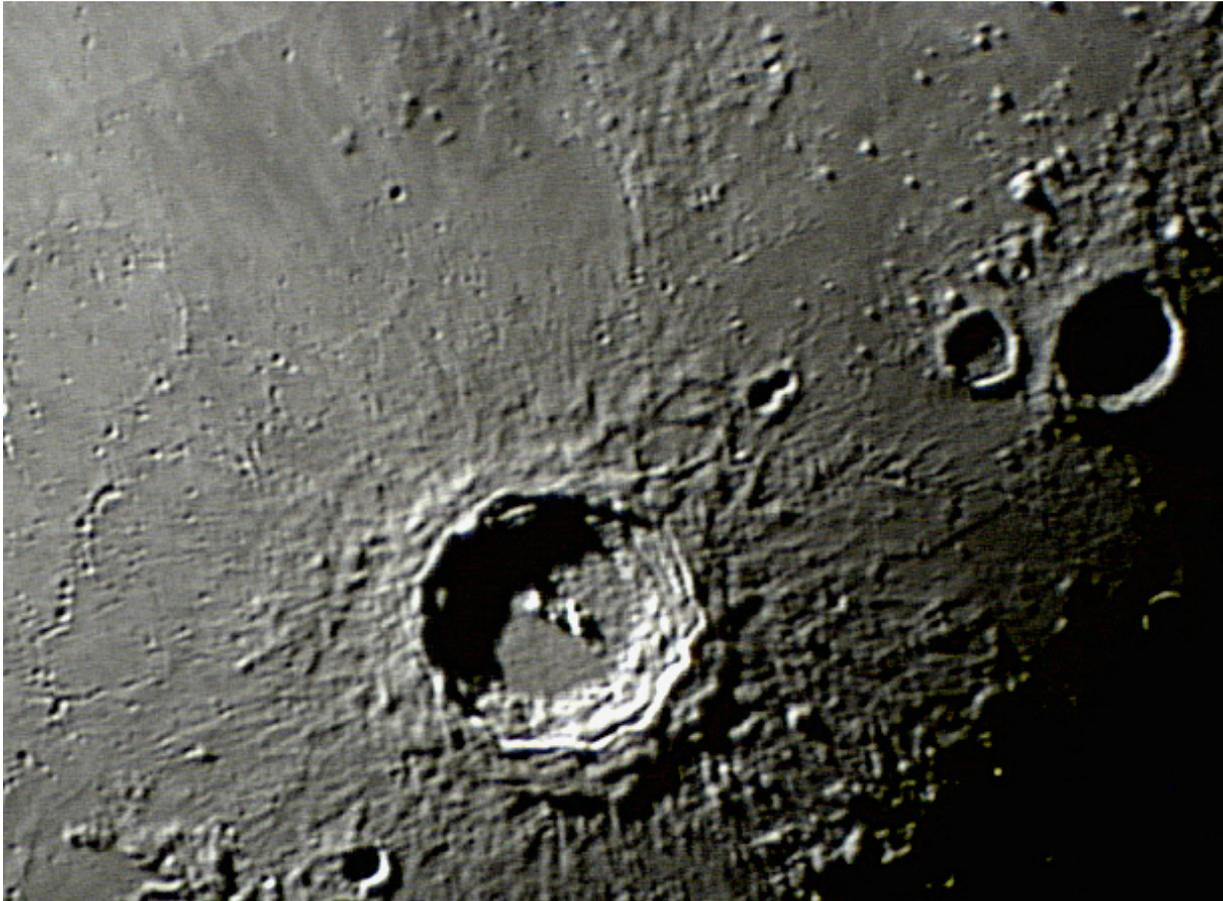


Sky **WAA** tch



Crater Copernicus

John Paladini took this image of crater Copernicus with his home-built 6" f/8 refractor (10 frames a second neximager stack of about 100).

An impact crater, Copernicus is thought to be about 800 million years old. The crater is 93 km in diameter and about 3700m deep. The crater's central peaks are visible in the above photo. They rise about 1200m above the crater's floor.

Events for May 2010

WAA Lectures

**“No Place for the Timid:
The Engineering Saves of NASA”:
Friday May 7th, 8:00pm
Miller Lecture Hall, Pace University
Pleasantville, NY**

Alan Witzgall will be giving a behind the scenes look at NASA, featuring the engineering saves and technical support which make space flight possible. Alan is a well-known astronomy lecturer and science writer; he is active in many metropolitan area astronomy organizations. Free and open to the public.

Upcoming Lectures

June's lecture will be a teleconference featuring the senior astronomer from the SETI institute, Dr. Seth Shostak. It will take place at 7:00 pm on Thursday June 10th.

Directions

The best way is to enter the Campus is through Entrance 2, and follow the road around to Miller Hall. The meeting will be held on the ground floor in the Miller Lecture Hall. For directions and a campus map go to:

<http://www.pace.edu/pace/about-us/all-about-pace/directions-to-all-campus/pleasantville-campus/>

Starway to Heaven

**Saturday May 8th, 8:30-10:30PM
Meadow Picnic Area, Ward Pound
Ridge Reservation, Cross River**

This is our scheduled Starway to Heaven observing date for May, weather permitting. Free and open to

the public. The scheduled rain/cloud date is May 15th. Participants and quests should read our **General Observing Guidelines**.

Renewing Members. . .

Bill Forsyth - Hartsdale
Donna Cincotta - Yonkers
Arumugam Manoharan - Yonkers
James Peale - Bronxville
Paul Alimena - Rye

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/>.



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. 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

NEAF 2010 (April 17th and 18th) by Larry Faltz (photos by the author)



This year's Northeast Astronomy Forum, organized by the Rockland Astronomy Club and held at Rockland Community College, was the 19th annual event and perhaps the largest, attracting astronomers and vendors from across the country and even around the world. The show is primarily an opportunity for manufacturers of telescopes, mounts, accessories and cameras to demonstrate their wares, and for sellers of astronomy gear and astronomy related items like books, meteorites, T-shirts and assorted other astro-goodies to do a brisk business, often at well-discounted prices. In addition, there is a substantial educational component to the show, including a lecture series, student science projects and workshops. The annual NEAF Solar Party, featuring up to several dozen solar telescopes, was an unfortunate victim of cloudy weather once again, but that didn't stop many of us from drooling over brand new Lunt scopes and big refractors with 90-mm etalons or DayStar filters.



Most of the Pavlovian-style drooling, though, was stimulated by the vast number of beautiful telescopes of all types, ranging from simple refractors to giant dobsonians and advanced-design imaging scopes on huge, computerized mounts. Orion brought one of their new giant dobs, a 40" truss design with motorized tracking and go-to. A 50" is available, costing well over \$100,000, and I was told that at least one attendee expressed an interest in Orion building a 60". Beautifully machined imaging scopes from PlaneWave (including a new 24" model on a giant fork mount) and Officina Stellare (from Italy, of course) competed with gorgeous traditional Cassegrains and refractors from Astrotech, Meade (a 20" SCT), Celestron, Vixen and other manufacturers. There were CCD imaging cameras galore, dome makers, dome controller makers, focuser makers, mirror makers, astronomy clubs and even travel agencies (for astronomy-related trips, of course... anyone want to observe the southern skies at Lake Titicaca in the Andes, or see the big scopes in Chile?)

WAA took a booth, manned during the show by President Mike Virsinger, Darryl Ciucci, Charlie Gibson, Doug Towers and me. During the first day of the event, we were entertained by “Talons”, a group that raises and trains birds of prey. They took the booth across the way from us to demonstrate falconry, using an eagle and two magnificent owls, to raise interest in their organization. Night Vision Astronomy, the company that manufactures the Binocular Photon Machine (BIPM), the creation of WAA members Doug Baum and John Palladini, had a booth. Doug was accompanied both days by his son Ben, a formidable astronomer in his own right, and on Sunday by wife Heather and daughter Maiya.



You can't walk past the many vendors without buying something, whether you actually need it or not. When I left for the show on Sunday, my wife Elyse, who was there with me all day Saturday, said “Try not to buy something that you really don't need”. I wrestled with my conscience and managed to avoid buying a beautiful Stellarvue 102ED2 in metallic blue (having purchased an upgraded focuser for my Stellarvue 80mm scope on Saturday, getting a great deal directly from Stellarvue owner Vic Maris). I did get an eyepiece, a book, two dovetail plates, some red LED lights, some eyepiece caps and some other low-cost items. Mike Virsinger became the proud owner of a tiny piece of fused glass from the Trinity A-bomb site.



As you go year after year, you begin to see familiar faces and you get to meet some of the real movers and shakers of our hobby. And you get to learn a lot. Dean Koenig of Starizona showed me how the Hyperstar imaging setup works. This device substitutes for the secondary of an SCT and converts the scope into an $f/2$ imaging device. The guys from Starlight Xpress patiently answered my questions about cleaning camera sensors without destroying them. David Ho of Hotech demonstrated his amazing laser collimator for SCT's, a brilliant and unique solution to one of stargazing's less attractive chores. I found out about life in Peru from Rikki Hocking of Lunt, who recently moved there with her husband but still does some work for the Tucson-based maker of hydrogen-alpha scopes. You get into conversations with other attendees, whose names you never learn but whose passion for the hobby rivals or even outdoes your own.

One of the highlights of the show this year was an entertaining and informative talk to a standing-room only audience by Geoffrey Notkin and Steve Arnold, the Meteorite Men of Science Channel fame. Steve was 20 minutes late, having just arrived from Wisconsin, where he was looking for meteorites from the fireball that flew over 7 states on April 14th. Sure enough, he pulled two fragments from his shirt pocket, to applause from the audience.

So NEAF is a lot of fun, you can get the stuff you need and some stuff you don't, and you can drool over the real goodies. No amateur astronomer should miss it. See you there next year!



Constellation Corner

by Matt Ganis

For those of you with poor memories (like me) let me take the time to remind you that May 9th is Mother's Day!!! Let's not forget our wives and mother's on this special day. Now, to help us remember, I thought it might be interesting to look into our skies and see what constellations could help us remember this event (sort of like a string around my finger).

Probably the best known story of a Mother and Child in the sky is that of Callisto and Arcas. Callisto was a young woman who was in training to be a hunter under the tutelage of Diana (or Artemis). One day, while on a hunt, Zeus (or Jupiter) saw the young Callisto and quickly fell in love with her. In his typical fashion, Zeus disguised himself as Diana (Callisto's mentor) in order to get close to the unsuspecting young woman. As a result of their encounter (some recount it as rape) the young Callisto bore a child, Arcas and was sent away from the hunting class in disgrace. Living with her son in the forest, she went on to raise the child to become an accomplished hunter.

Eventually Zeus' jealous wife Hera found out about the tryst and about Callisto and in her rage, turned the young girl into a bear out of spite. One day, when Arcas was out hunting he came across the bear in the woods (this was Hera's hope, that he would shoot his mother in ignorance). Just as Arcas was about to slay the bear however, Zeus snatched the big bear (Ursa Major) away and placed her among the stars.

Arcas was also changed into a little bear (Ursa Minor) and put into the sky near his mother. Upon hearing the news, Hera was very upset and persuaded the god of the sea to forbid the bears to ever wash. As a result, the two constellations circle the north pole of the sky but never set below the horizon (or into the sea). As a side note, it's interesting how Zeus got the bears into the sky. Apparently Zeus grabbed them by their tails and swung them around over his head and

finally flung them into the sky, and that is why these two bears have long tails!

Consider the constellation, Orion, which dominates the northern hemisphere's winter sky. In western mythology, Orion is a hunter, with a prominent row of three stars forming his belt and a smaller row of three stars forming a sword hanging from his belt. A closer examination of the center star in the sword reveals a fuzzy patch - the famous Orion Nebula. As we understand it today, the Orion Nebula is essentially a stellar nursery; the hunter's womb is giving birth to new worlds. It is a site of active ongoing star formation.

The Mayans of southern Mexico and Guatemala associated Orion with their creator god. Orion's belt stars represented the back of a celestial turtle. "First Father", their creator god, is said to have emerged from a crack in the back of this celestial turtle to put people in the world. The great nebula, a smudge in the sky, was interpreted as smoke, which they saw as the flame of creation.



An ancient Norse legend associates Orion with Mother Earth. The goddess Frig, was married to the supreme Nordic god, Odin (or Orion). As Odin's wife, Frig was queen of the gods and among her roles were that of Mother Earth, the goddess of motherly love, and goddess of the atmosphere and clouds. The Scandinavians saw Orion's belt and sword as the spindle that Queen used to spin thread to make linen cloth for her people on Earth.

Thinking of these legends it's appropriate that we think of the winter sky as being dominated not by a fierce warrior or hunter killing enemies or prey, but by First Father or Mother Earth creating or giving birth to young stars and new worlds. Happy Mother's Day.

Almanac

For May 2010 by Matt Ganis

It seems to be a rather ordinary month in the sky this May; not that there's anything wrong with "ordinary." It gives us a chance to focus not on the anomalies that are happening in the sky but on the often overlooked planets or clusters that we always seem to forget to have a look at!

Venus continues to be one of the brightest objects in our springtime skies. The planet just can't be missed, shining like a powerful beacon in our western skies. The planet boasts an impressive -4.0 magnitude throughout the whole month of May! In case you don't know where to look, the goddess of love can be located in the constellation of Taurus about 7 degrees above the bright star Aldebaran. Not one to sit still, the planet is on the move! By the end of the month it will have "moved" from Taurus into the "heart" (almost literally) of the lesser twin (Pollux) in the constellation of Gemini. On its journey, you may want to try to watch for the planet on the evening of May 14th where the bright planet will be located between the two stars that mark the end of the Taurus the Bull's horns.

For an interesting view, look on the 21st of the month, around dusk. Venus will be located about 1 degree from Messier 35 making for a wonderful view in binoculars or small telescopes.

On the other end of the sky, look for Saturn in your eastern skies. The ringed planet is shining at a rather unimpressive +0.9 magnitude. It's still impressive in a telescope, but you could easily miss it located just below Leo the Lion, at the end of Virgo. The rings continue to "dip", just 1.7 degrees from edgewise to Earth. They should appear as thin spikes.

Mars is still quite impressive in our western skies just around sunset. Mars reaches eastern



May 6



May 13



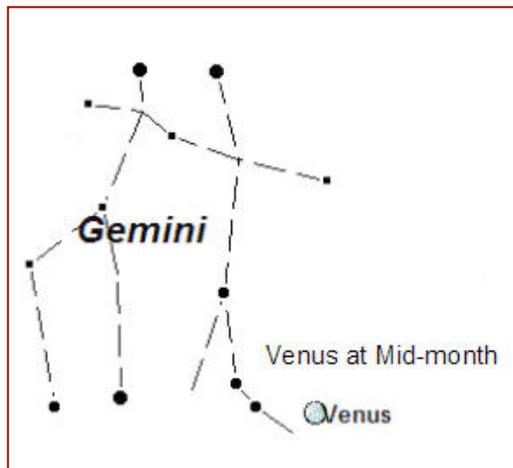
May 20



May 27

quadrature on May 4th. If the angle between the Sun and the planet is 90 degrees, or a quarter of a circle, the planet is said to be at quadrature. Eastern quadrature is when the planet is 90 degrees to the east of the Sun, and Western quadrature, is when the planet is 90 degrees to the west of the Sun. When the planet is at quadrature, we get a shadowed edge. It may be hard to see in smaller telescopes, but worth a try.

Jupiter will be rising just around morning twilight at the start of the month. If you're patient, it should enter into the sky around 2 or 3am by month's end. For those of us that don't like to be up so early, Jupiter will become a target for us around June or July.



For those of you that like conjunctions, the Moon will have a few "close encounters" this month. On the evening of the 19th, the (almost 1st quarter) Moon will be about 6 degrees below Mars. The next night, on the 20th the moon will have moved to a position about 5 degrees to the left of the bright star Regulus and now about 12 degrees from Mars.

