

Vandenberg Amateur Astronomical Society presents The Sidereal Times



Rosette nebula NGC 2237 (see page 5)

Meeting News:

The May meeting we discussed support for a Star party at Los Flores ranch on the 14th of May and the Manzanita school support we provided on the 29th of April. Also Shuttle history was presented by Jana. We have a new member, Alex Ustick welcome Alex.

Reminder: VAAS club meeting June 10th 7:00PM Manzanita School, teachers lounge. **Note: this will be the last meeting until September, July and August is our Summer break, this includes no news letters but there will be event reminders during this period.**



Lunar Calendar:

New Moon 7th
Full Moon 22nd

Tom & Vince Los Flores



Presidents Message

I was pleased to see the great turnout of members for our May meeting- 13 attended! We said our last goodbyes to Dave Covey as he is in the process right now of moving permanently to Prescott, AZ. We will miss our past Vice President / President and all the work he did for our club these last few years.

As one leaves...another person is added to our list of members. Alex Ustick was in Vince's Astronomy class at AH College this last year, and just joined our club in May. I wonder if Vince had anything to do with that? Please give him a warm welcome when he comes to the June meeting. Remember that I will not be able to attend that meeting because I will be in Alaska on a cruise with my sister. I will be thinking of all of you in the "Lower 48", as they say.....while I will be observing glaciers, whales and eagles.

Our new Vice-President Tom Gerald will be in charge- please help him out with your own Astronomy stories or current events for the presentation time. He will be showing the updated copy of the VAAS flyer he is making, and hopefully all can agree on the format, so we can get that printed. Thanks Tom for taking that on! We want to thank Vahan-our # 1 Fix it Man, for placing a new solar filter on our Celestron Scope in the Observatory- just in time to observe Mercury in its transit across the sun on Monday , May 9th. The morning started out cloudy, but opened enough before the event came to a close late morning. Justin, Mark, and Dave also came by to see this rare historic event with Vahan.

Remember- NO MEETINGS for the months of July and August ! But we will continue to have our Star Parties all summer- hope you can make it to those. We will resume our VAAS club meetings in September.

Summer fog stay away - Summer clear Nights come to stay!.....Jana

Events

June 3rd Saturn at Opposition and will be at its closest approach to Earth. It will be brighter than any other time and will be visible all night long.

June 4th *Star party at Figueroa Mountain site 1.5.*



June 5th Mercury at Greatest Western Elongation 24.2 degrees from the Sun. This is the best time to view Mercury since it will be at its highest point above the horizon in the morning sky. Look for the planet in the Eastern sky just before sunrise.

June 11th *Star Party at the observatory.*



June 20th June Solstice occurs at 22.34 UTC. The North Pole of the Earth will be tilted toward the Sun which will have reached its North most position in the sky and will be directly over the Tropic of Cancer at 23.44 degrees North latitude. The first day of Summer in the Northern Hemisphere.

June 25th *Star Party at the Observatory.*



Note: Since July and August is our summer break. Here is a projected schedule of events during the break period....

July Star Party, 2nd & 30th Figueroa Mt.

July Star Party 9th at Observatory

July Star Party 23rd at Observatory

August Star Party 6th Figueroa Mt.

August Star Party 13th Observatory

August Star Party 27th Observatory

Craig



Star party's and Events

May 7th Star Party at Figueroa Mountain site 1.5. Event cancelled due to weather.



Nuts!

May 9th 8Am at the observatory for the Mercury transit of the Sun, Justin Graves, Mark Bumgarner, Dave Covey and Vahan Yeterian. Justin set up his 8" SCT equipped with a solar filter. Sky was overcast and did not clear until after 10Am. Mercury was a little more than half way across at that time Some photos were taken with Mark's Cel phone camera. It was Peek-a-Boo between the clouds. See page 7 & 8. Craig Fair captured Mercury from Figueroa Mt.



May 14th Star Party at Observatory. Dave McNally on site no one else showed up so he departed about 8Pm. Mark Bumgarner on site about 8:15Pm. Weather was fair. Mark spent time cleaning up the concrete pad, he did not bring a scope. Departed about 9:00.



May 14th Astronomy night at Los Flores Ranch. Vince Tobin was the only VAAS member that showed up for the event. The weather was not cooperating lots of clouds but Jupiter and the Moon were viewed during clear moments. The event was short lived due to a Los Flores scheduling error.



May 28th Star party at Observatory. Vahan on site. Weather and seeing sort of iffy. Overcast skies Departed 7:40Pm. Star party scrubbed for this evening.

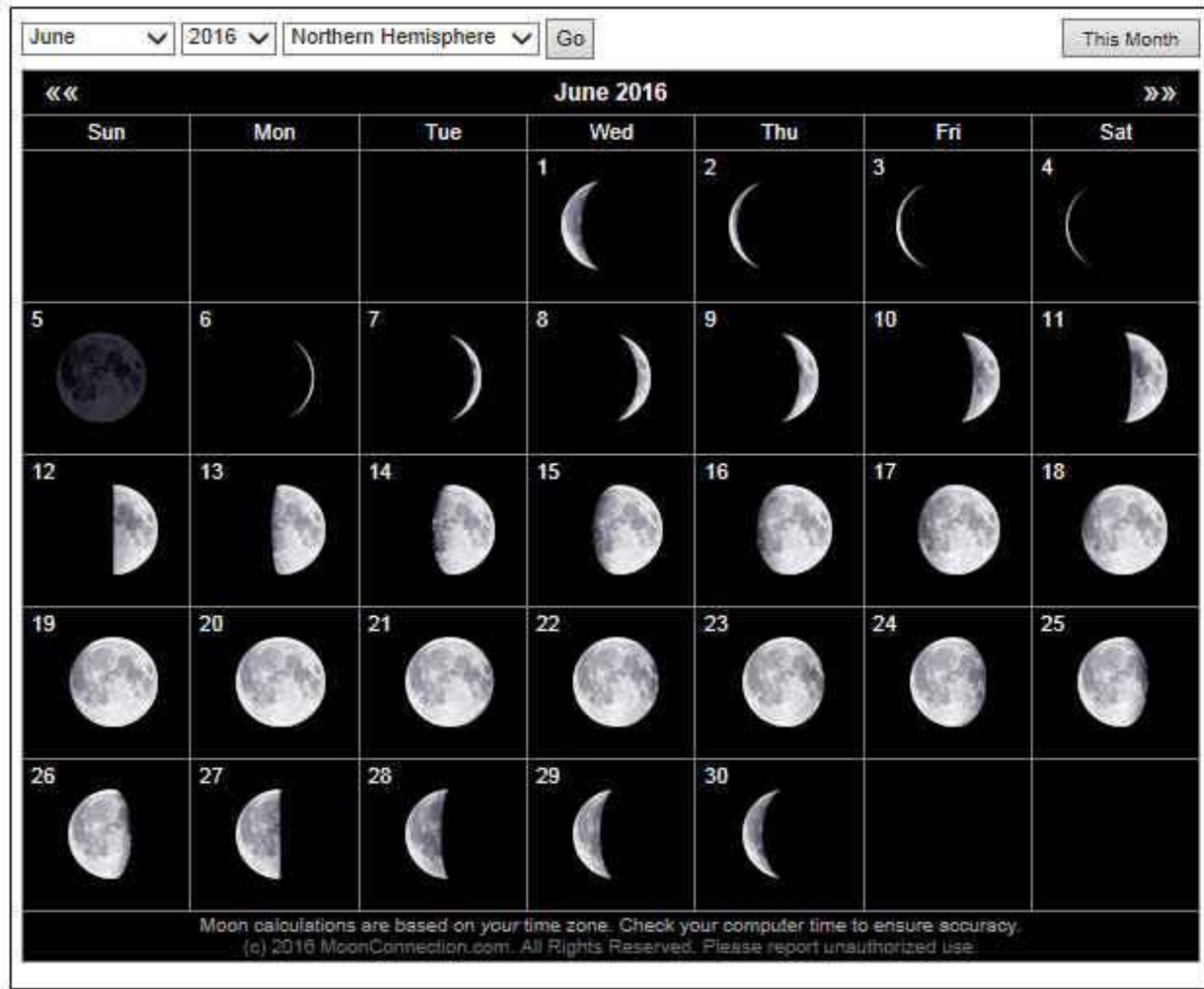


Nuts

April 29th Manzanita school Solar day at the observatory. Jana, Vince, Dave and Vahan set up the 14" scope and several displays for 2 classes of 3rd and 4th graders accompanied with teachers and parent. The scope was configured with a solar white light filter and began imaging the Sun two very small spots were visible and atmospheric were not very good. Clouds moved in later in the afternoon and at times obscured the Sun. There were approximately 50 young students attending with 2 Teachers and one parent. Jana and Vince ran the displays and hands on type materials and Dave and Vahan the Observatory. The event ran from 1:00 to 3:00PM. It was a very good event. (photo page 6 & 7).



June 2016 Moon



Full 21st, New 5th, 1st Quarter 11th, Last Quarter 27th

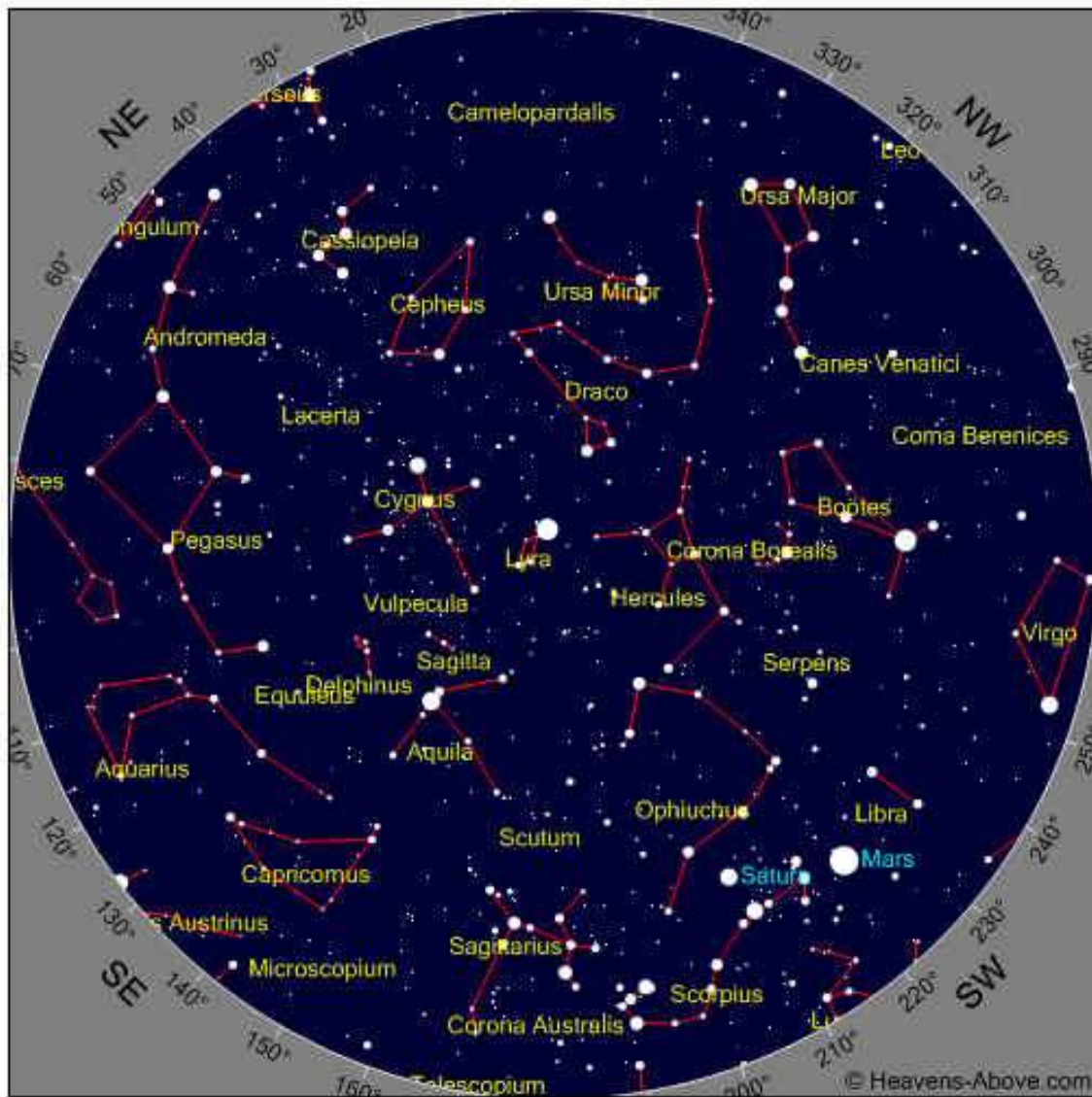
Moon Facts

The rise and fall of the tides on Earth is caused by the Moon. There are two bulges in the Earth due to the gravitational pull that the Moon exerts on the side facing the Moon and the other on the opposite side that faces away from the Moon. The bulges move around the oceans as the Earth rotates causing high and low tides around the globe.

The first spacecraft to reach the Moon was Luna 1 in 1959. This was a Soviet craft that was launched from the USSR. It passed within 5995 Km of the surface of the Moon before going into orbit around the Sun.

June 2016 Sky

Some Objects of interest, M13, Mars, M31, Mercury, Saturn



Time

Year	2016	Month	6	Day	5	Hour	10	Minute	31
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Photo Courtesy David McNally



The Rosette nebula Caldwell 49 NGC 2237 located near one end of the giant molecular cloud in the Monoceros region of the Milky Way Galaxy. The open cluster NGC 2244 is closely associated with the nebulosity, the stars of the cluster having been formed from the nebula's matter. The cluster and nebula lie at a distance of some 5000 light years from Earth and measure roughly 50 light years in diameter. The radiation from the young stars excites the atoms in the nebula causing them to emit radiation themselves producing the emission nebula we see. The mass of the nebula is estimated to be around 10,000 solar masses. A survey of the nebula with the Chandra X-ray observatory has revealed the presence of numerous new born stars inside the optical Rosette nebula studded with a dense molecular cloud. Altogether, approximately 2500 young stars lie in this star forming complex. This includes the massive O-type stars HD46223 and HD46150 which is responsible for blowing the ionized bubble. Most of the on going star-formation is occurring in the dense molecular cloud to the South East of the bubble. A diffuse X-ray glow is also seen between the stars in the bubble. This has been attributed to super hot plasma with temperatures ranging from 1 to 10,000,000 degrees K. This is significantly hotter than the 10,000 K plasmas seen in the H ii regions and is likely attributed to shock-heated winds from the massive O-type stars.

Image capture, 400 mm telephoto lens, Canon T3i Baader modified, Celestron CGEM hypertuned mount, frames 20 x 120" and integration time 0.7 hours, image processing software DSS 3.3.4.

For What its Worth

April 23rd 2016 Los Flores Ranch Earth and Solar Day Event

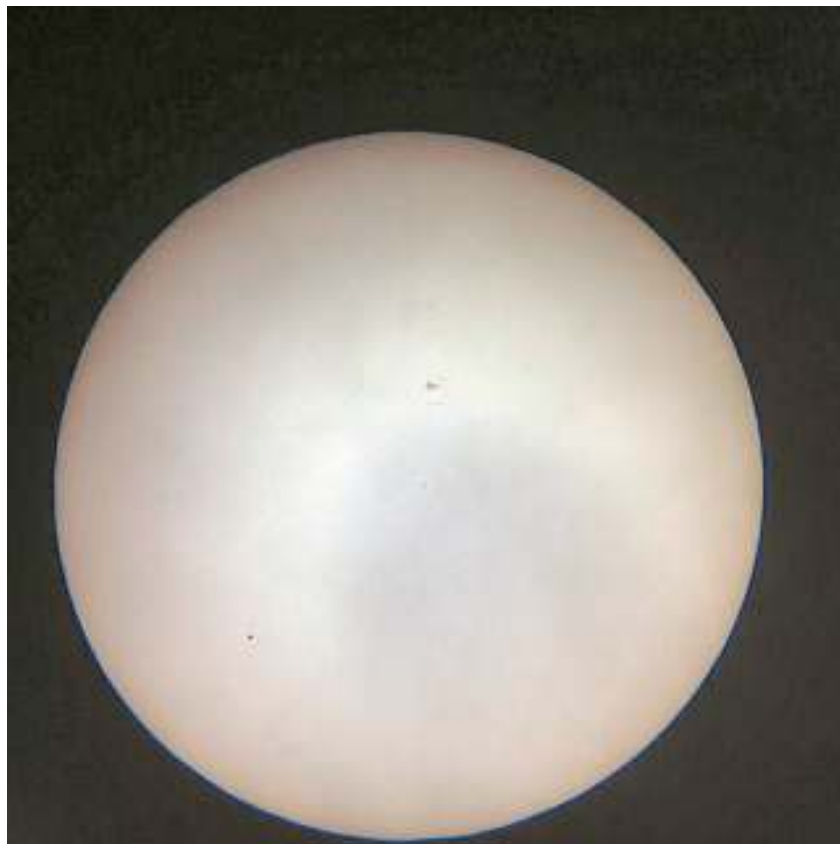


Manzanita School Solar event 29 April 2016 at the Observatory

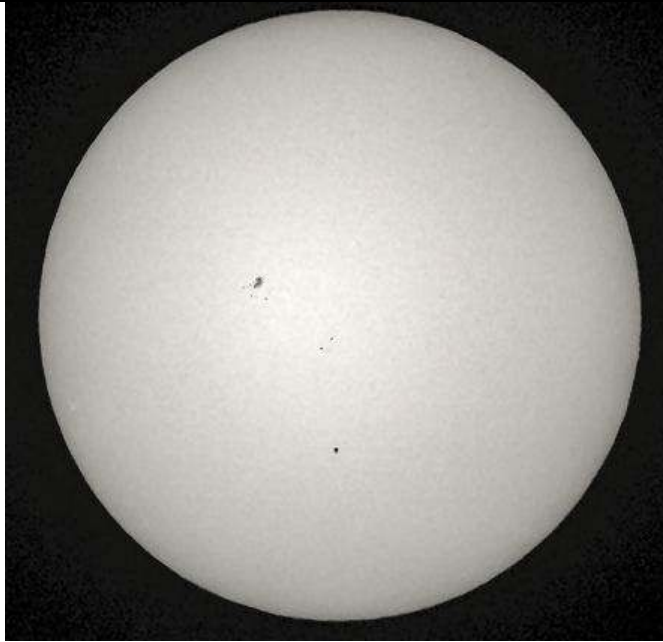
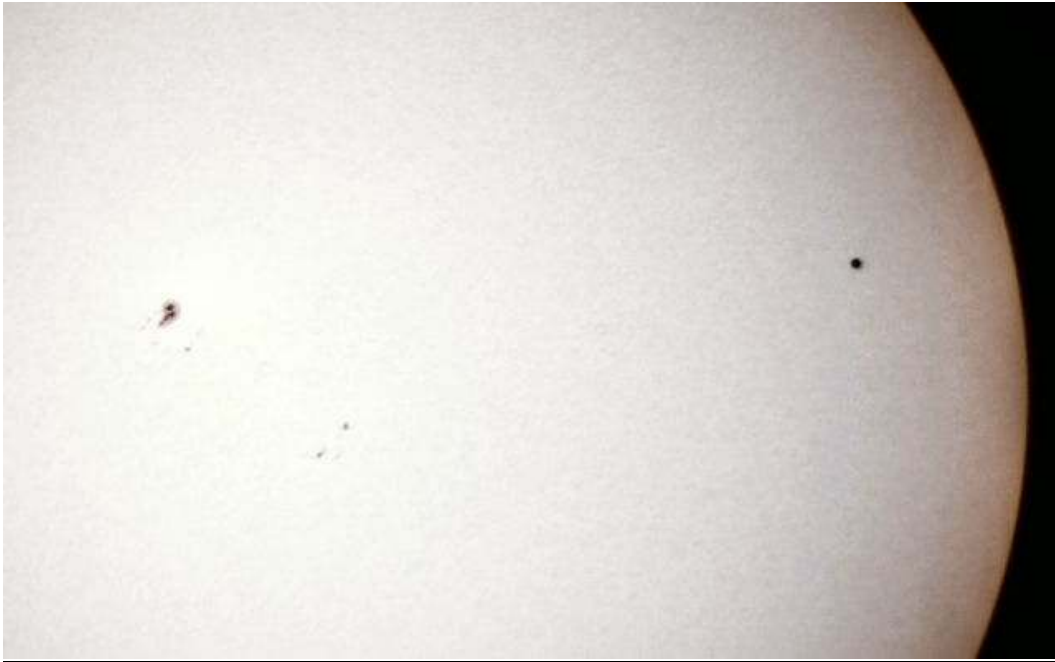




May 9th Transit of Mercury across the Sun (Mark/Justin)



Mercury Transit (Craig)



Club Officers



**President
Jana Hunking**



**Vice President
Tom Gerald**



**Treasurer
Vince Tobin**



**News Letter Editor
Vahan Yeterian**

*“Astronomy compels the soul to look upward,
and leads us from this world to another”.*
(Plato)



Club Meeting

Reminder Club meeting June 10th at 7:00Pm
Manzanita charter School.

Star Parties (as always weather permitting)

Other Astronomy Club Meetings

Central Coast Astronomical Society

Link to web site...

<http://www.centralcoastastronomy.org/>

Santa Barbara Astronomical Unit

Link to web site...

[http:// www.sbau.org/#AU_EVENTS_Calendar](http://www.sbau.org/#AU_EVENTS_Calendar)

Night Time Bright Objects (no scope required)

Link to “Heavens Above” web site

[http:// www.heavens-above.com/](http://www.heavens-above.com/)

(Iridium Satellite)

(ISS Visible Pass)

Be sure to set the nearest location from their
pull-down menu.

The web site link below will take you to some
Great Milky Way interactive images and how
It was developed. (Type it in the search box.)

<http://skysurvey.org/>

VAAS.

Dave McNally is the VAAS Web Site Serf/Minion

Dave

