

Vandenberg Amateur Astronomical Society
presents
The Sidereal Times



Messier 42 (see page 5)

Meeting News:

At the December meeting we discussed election of club Officers. Discussed the annual Christmas party and Watched a video about birth of the Solar system.

Reminder: VAAS meeting January 10th will be held at A local eating establishment. You will be notified by Email and snail mail as to the location.



Lunar Calendar:

New Moon 1 Jan. 2014
Full Moon 16 Jan. 2014

Presidents Message

We had a good turn out at the December 13th meeting such that we had a quorum this time. The nominations for club officers, and since we were on a roll, elections...errr I mean the railroading was also done. The VAAS officers for 2014 operating year are:

- President – Dave Covey
- Vice President – Monica LeClair
- Treasurer – Vince Tobin
- Editor – Vahan Yeterian

We then discussed the holiday party and decided to hold it on Friday 10 January 2014. The VAAS treasury will be fitting the costs, Liquid refreshment cost is the attendees responsibility. Details about time and place will be forth coming.

The verdict for Comet ISON is that the nucleus likely did not survive the close encounter with the Sun. The Comet is not likely to brighten anywhere near the previous predictions. In fact, even with the best telescopes it remains a small fuzzy object. So another Comet bites the dust.

We will be gathering at the observatory on the Saturday closest to the New Moon the rest of the Winter season. Please do make an effort to come to the New or 3rd quarter Moon Star Parties. It is always good to have other members share their experiences and views through different scopes. As always, have fun and clear skies.....

Dave



January 2nd & 3rd

Quadrantids Meteor shower. The Quadrantids is an above average Shower, with up to 40 meteors per hour at its peak. It is Thought to be produced by dust grains left behind by an Extinct comet known as 2003 EH1. The shower runs 1 to 5 January. It peaks this year on the night of the 2nd and the Morning of the 3rd. Best viewing will be after midnight. Meteors will radiate from the constellation of Bootes but Can appear anywhere in the sky.

January 4th Star party at the Observatory!

January 5th

Jupiter at Opposition. The giant planet will be at its closest approach to Earth and its face will be fully illuminated by the Sun. This is the best time to view and photograph Jupiter and its Moons.

January 11th Star party at the Observatory

January 16th

Full Moon. The Moon will be directly opposite the Earth From the Sun and will be fully illuminated as seen from Earth. This phase occurs at 04:52 UTC.

January 25th Star party at the Observatory!

January 30th

New Moon. The Moon will be between Earth and Sun and will not be visible from Earth. This phase occurs at 21:38 UTC.

February 1st Star party at the Observatory.



Some Star parties were cancelled due to Local Weather.



Star Party and Reports

December 7th Star Party was cancelled due to Clouds and high winds.

December 14th At the observatory Ken and Louise Spraker and Vahan set up Ken's new scope and tracking mount. Primary purpose was to dial it in alignment wise which worked out good. Could not do any imaging with camera because the lap top computer went belly up. All in all things worked out OK. It was a very cold evening.

Activity during this December period has been reduced considerably due to the Holiday Season. Not much in the way of activities.

Inputs for the VAAS Newsletter are welcomed by the Newsletter Editor. If you have anything that you think might be of interest to the membership feel free to email me your input. This would include telescopes, astronomy items etc. you might have for sale or are interested in acquiring.

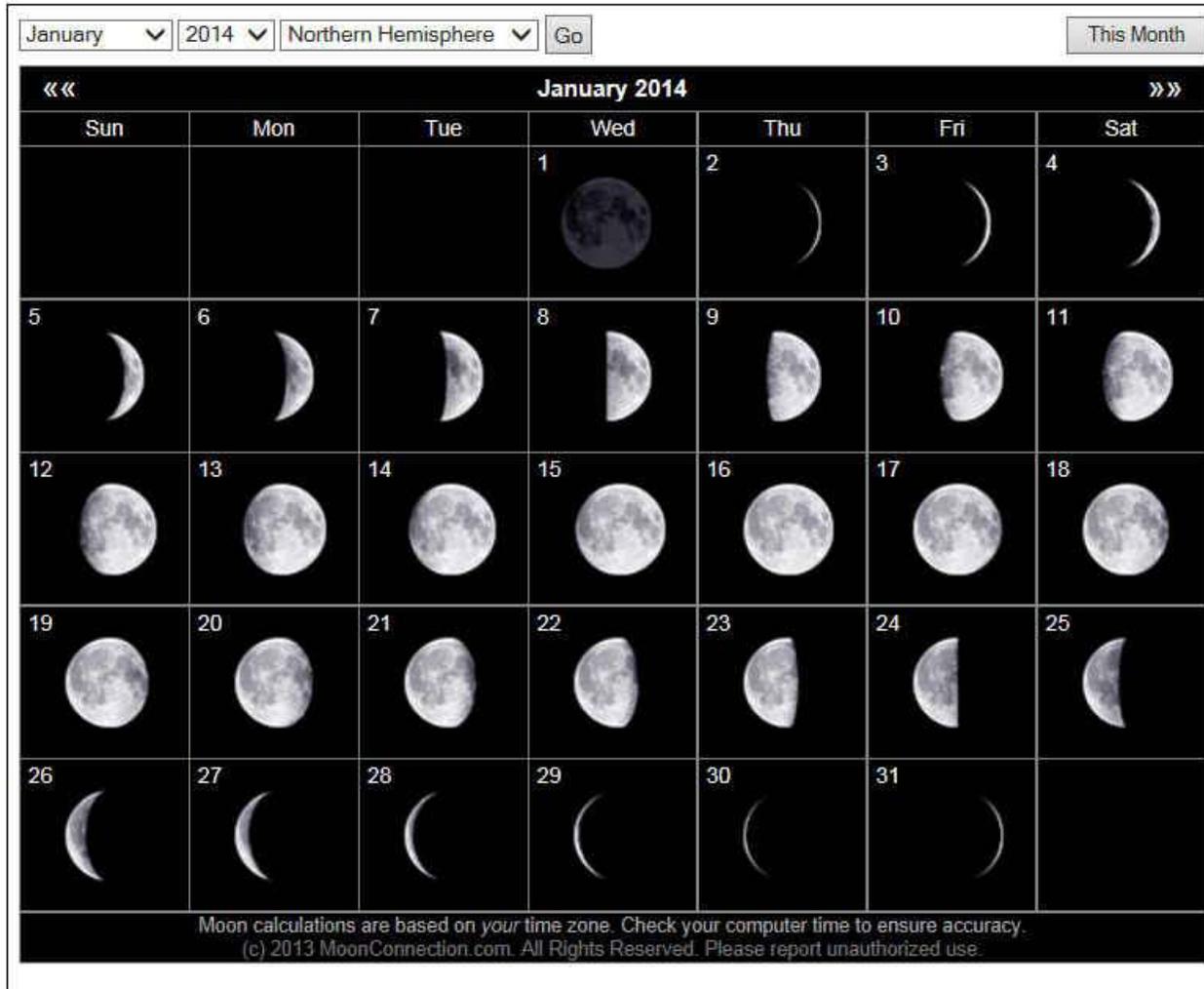
Some interesting information about Lunar topographical names. The modern system of lunar nomenclature such as Maria, Lacus, Palus Sinus and Oceanus etc. was introduced in 1651 by Giovanni Battista Riccioli. Riccioli's map of the Moon was drawn by Francesco Maria Grimaldi.

Oddly enough Grimaldi has a crater on the Moon named after him.

A handy temperature conversion table.....

Celsius to Fahrenheit	$^{\circ}F = 9/5 \times (^{\circ}C) + 32$
Kelvin to Fahrenheit	$^{\circ}F = 9/5(^{\circ}K - 273) + 32$
Fahrenheit to Celsius	$^{\circ}C = 5/9(^{\circ}F - 32)$
Celsius to Kelvin	$K = ^{\circ}C + 273$
Fahrenheit to Kelvin	$K = 5/9 (^{\circ}F - 32) + 273$

January Moon



New Moon January 1st

Full Moon January 16th

Moon Folklore

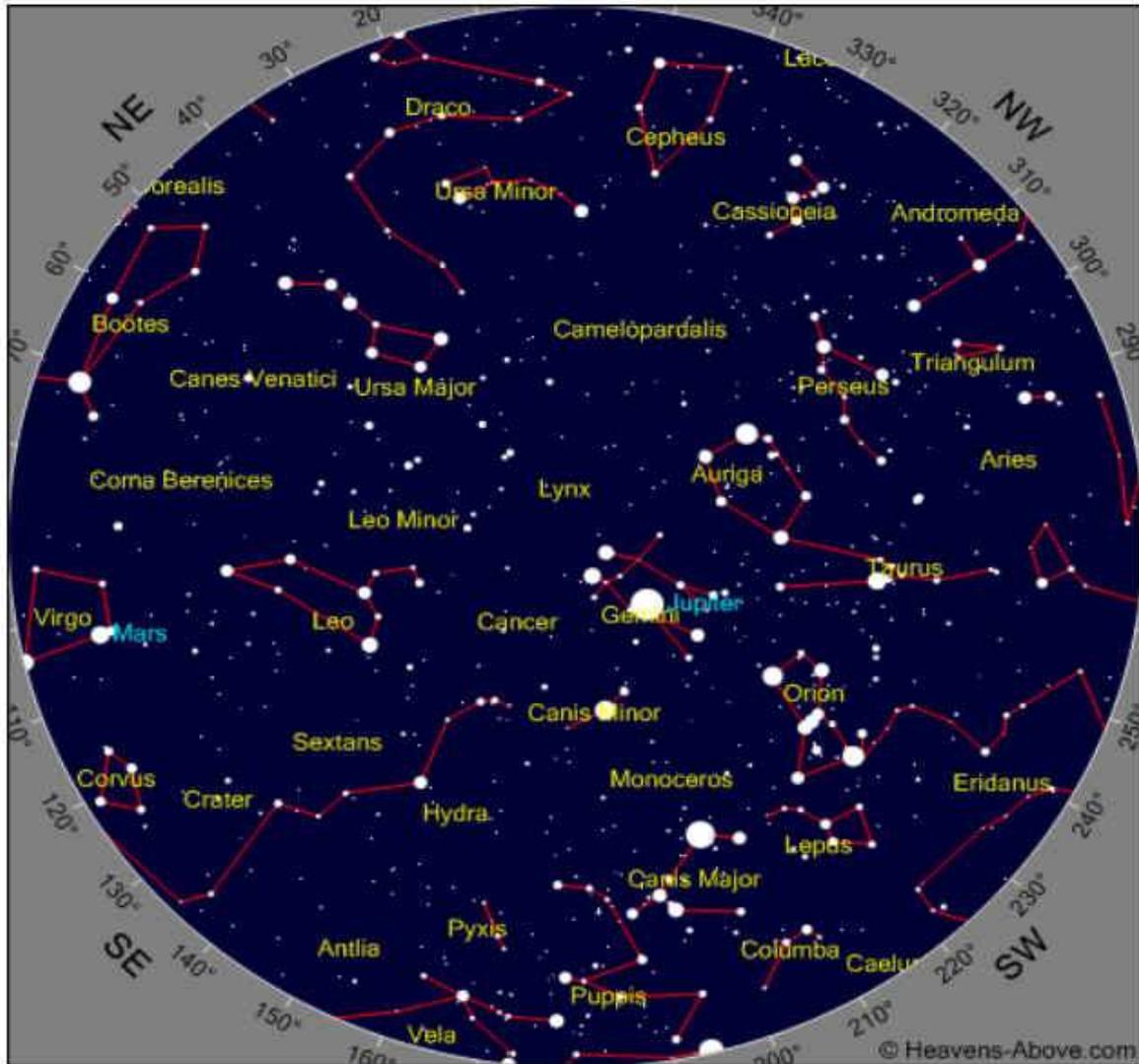
In some Chinese religions offerings are made to the ancestors on the night of the full Moon.

A pale full Moon indicates rain, while a red one brings wind.



January Sky

Objects of interest: M42, M1, Jupiter, Mars



Time

Year	2014	Month	1	Day	1	Hour	9	Minute	10
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Display options



Photo Courtesy Vahan Yeterian



Messier 42, NGC 1976 the great nebula in the constellation of Orion some 1325 light years distant and is 24 light years across. It is the closest region to Earth of massive star formation. It has a mass 2000 times that of our Sun. It is mainly composed of ionized Hydrogen. The energy to keep the nebula glowing comes from very hot young stars in a formation called the Trapezium imbedded in the bright part of the nebula. There are also supersonic bullets piercing the Hydrogen clouds of the nebula. Each bullet is ten times the diameter of the orbit of Pluto and are tipped with Iron atoms glowing bright blue. They were formed some 1000 years ago from an unknown source. The image was captured using an 8 inch SCT, Canon T3 Rebel DSLR and image processed using Deep Sky Stacker (DSS) software. Eight raw images at ISO 3200, 2 darks with each exposure 35 seconds unguided.



Star Party Regulars during 2013



For What It's Worth

Focal Reducers: An auxiliary lens used mainly for photographic or CCD imaging purposes. It reduces a telescope's effective focal length allowing images to be taken much faster and also gives a wider field of view. Some focal reducers may be used visually to obtain a wider field of view using an eyepiece.

Meniscus Lens: A lens having two spherically curved faces, one convex and one concave so that it has the form of a shell. A positive meniscus lens is thicker in the middle than at the edges and serves as a converging lens. A negative meniscus lens is thicker toward the edges and works as a diverging lens. Very large telescopes may use meniscus mirrors which are lightweight and require an active control system to retain their shape against gravity.

Interference Pattern: Alternating light and dark bands, known as fringes, that are produced by interference. In general the pattern of peaks and troughs that result when two or more waves that traveled slightly different paths from the same source are brought together. The term is also used in radio astronomy to describe the pattern that results when the signals picked up by two or more elements of an interferometer are combined. Interference is the basic principle used in interferometry to increase resolving power.

After Image: An image retained by the brain and seen even after looking away from an object. The color of the after image is the complement of that of the object viewed. Television and motion pictures make use of this phenomenon.

Candlepower: An obsolete unit of luminous intensity. One candlepower was originally defined (in 1860) as the amount of light given off by a pure spermaceti candle made from the fat of a sperm whale and weighing one sixth of a pound and burning at a rate of 120 grains per hour. Today if the term candlepower is used it is exactly equivalent to the Candela.



Club Officers



President
Dave Covey



Vice President
Monica LeClair



Treasurer
Vince Tobin



Newsletter Editor
Vahan Yeterian

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



Club Meeting

Club meeting 10 January 2014 7 PM
Hope to see you there.....

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.

**A Healthy and Happy New Year to all
from VAAS Club Officers.**