

The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



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Since 1958

February, 2013

Meeting:

February 16, 2013

Location:

San Bernardino County
Museum, 7:00 p.m.
Redlands, CA. California
St. exit, I-10 Fwy.

Pre-meeting Dinner, 5:00
p.m.,

The Sizzler
1800 So. Waterman
Ave.
San Bernardino, CA

After the meeting telescopes
will be set up for viewing
and members will be
available to answer
questions. Bring your
telescope to observe with us.

*No telescope is too humble,
and beginners are always
made welcome!*

After viewing the group will
head for Coco's in Redlands,
Tennessee exit, I-10 Fwy.

Program

History of the Optical Telescope

Part 1

February's program will be presented by our own newsletter editor, Jim Sommer. The program will be in two parts. Part 1 will cover from man's development of glass to the Herschels, William, Caroline and John. Part 2, at a later date, will cover from the Herschels to the 200" Hale telescope on Mt. Palomar.



Through the program you will learn how astonishingly early some of the great breakthroughs in the development of the telescope occurred. You will "meet" some old familiar names and maybe learn some new ones.

SBVAA Officers

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Calendar of Upcoming Events

February 9, Star Party at Johnson Valley

February 16, Club meeting at the Museum

March 9, Messier Marathon Star Party, at
GMARS site, Landers, CA

March 9, Star Party, Wildlands Conservancy at
Oak Glenn

March 16, Club meeting at the Museum

April 13, Star Party at Johnson Valley

Scheduled Club Events for 2013

<u>Club Meetings</u>	<u>Star Parties</u>
February 16	February 9
March 16	March 9
April 20	April 13
May 18	May 11
June 22	June 7 - 9
July 20	July 6
August 10	August 3
September 21	September 6 - 8
October 19	October 5
November 16	November 2
	November 30
December 7	



Johnson Valley, January 4, 2013. A small but stalwart group of club members braved the winter temps for a shot at clear, dark skies. When the photo was taken it was about 27 degrees F. Later, it was said that it got down to 18 degrees! Now that's dedication.

From your left to right are John and Scott Fitzgerald, Martin Carey, Steve Peeters, Cliff B., and, Mike Ratcliff.

Red Cloud Road: Deep Sky Observing

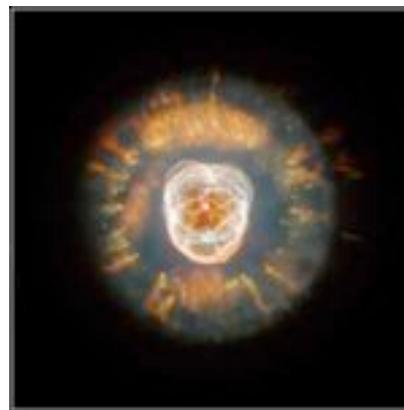
By Steve Peeters

The moon was not much of an issue for me. I arrived on site at 6:00 P.M. and commenced setting up. Around 7:00 P.M. I took a short break to eat dinner, by 8:00 P.M. I was operational. I looked at the moon, at about 29% waxing, then at Jupiter for quite a while, the big red spot was viewable and looking more green than red. Martin has pointed out to me that in my scope (15") the moons should appear as discs, and, I have since pleurably noticed that they do. I spent a while looking to at some of the brighter open clusters in the sky, M35, M46, and, the double cluster. At about 9:00 P.M. I got in my lounge chair and napped until 10:30. The temperature during my nap was about 45 degrees, so I covered up with an extra coat and a wool blanket over my legs and was quite comfy. Mike mentioned some very cold Johnson Valley temperatures from last week-end and with wind chill too. My excellent excuse for avoiding that star party was a went to San Diego to Visit my aunt and uncle, I can well understand not wanting to observe too long in temperatures around 20 degrees! At 10:30 with the moon down I got up. The night was clear, the transparency excellent, no wind to speak of with a low of 40 degrees, seeing though was just average. I had an enjoyable night, observing until about 2:45 A.M. I took numerous SQM readings. At about 11:00 P.M. I got a 21.40, then around midnight a 21.52. At about 2:00 A.M., with the milky way well away from the zenith, I got a reading of 21.62. Martin told me he has gotten 21.5 readings at times at Johnson Valley. This sight is usually darker than Johnson Valley, and, as most of you all know I am a strong advocate for it.

I can't say for certain, but I'd expect my SQM readings would be comparable to Martin's. The only way to know for sure is to test them side by side. My unit measures a 40 degree arc. At Johnson Valley a couple of weeks ago I got a 21.22 at around 11:00 P.M. As far as traffic on the road it is a bit unnerving, but as the site is well away from

it the headlights are not intrusive and none of these passerbys know that anyone is located out off the road anyway. And, with my experience out there, many times alone as I was a few nights ago, I feel safe. For the road in I have been using Summit Rd, same off ramp just turn right on the paved frontage road & go about .2 of a mile over to it and then head out from there. Summit Rd is presently in better shape than the first 2 miles of Red Cloud Rd. Summit merges into Red Cloud Road at about 2.3 miles out. One other caveat for the RC Rd site is that it is approximately the same distance to it that it is to Johnson Valley, but you get there a little quicker due to the drive being totally on Innerstate 10 until the last 3.7 miles on dirt, no highways with stop signs. I don't think you can beat the site out this way by looking around Hayfield Rd or going further down the freeway.

I spent a good part of the evening looking at some rather obscure Herschel 400 objects. I jacked the power up high on the Eskimo Nebula and got a



(Photo credit: NASA/ESO)

good view, but later wondered if I should have tried for even more power. I also had to check out other favorites like M51, the Leo Trio of galaxies (which appeared stunning), M81 & 82, Markarian's chain, the spindle galaxy, etc. And, as always I enjoy the bigger open clusters The Pleides, Mel 111, and, the Beehive. Near the end of my session my digital setting circles decided they weren't going to function anymore so I found my way around without them, albeit slower. To finish out the night I had a rewarding view of the globular cluster M3.

Great Observatories of The World

It has been a while since we looked at one of the great observatories and so we will now learn a little about the The Astronomical Observatory, Roque de Los Muchachos. Located on La Palma in the Canary Islands.



The Observatorio del Roque de los Muchachos (ORM) is situated on the edge of the Caldera de Taburiente National Park, just under 8,000 ft. above sea level in the municipality of Garafia. First light was in 1985. It is home to one of the most extensive fleets of telescopes to be found anywhere in the world and the largest grouping of instruments in the northern hemisphere.

Conditions at the Observatory are ideal not only for night time observations but also for Solar Physics. The Observatory also attracts researchers in High Energy Astrophysics.

The Instituto de Astrofísica de Canarias organises visits to its observatories (the Observatorio del Roque de los Muchachos and the Observatorio del Teide) for colleges and groups as part of a public outreach campaign designed to make knowledge about astronomy accessible to everyone.

The ORM Residence is a suite of facilities (including day and night-time dormitories, a kitchen and dining room, reception and living and games rooms), which is available for use by scientific and technical staff linked to the Observatory.

The observatory started with the 98 inch Isaac Newton Telescope, which was moved to La Palma from the Royal Greenwich Observatory site at Herstmonceux Castle in Sussex England, in 1979. The move was plagued with difficulties, and it is now widely recognized that it would have far less expensive to have built a new telescope rather than moving an existing one.



The observatory was initiated in Santa Cruz de la Palma by representatives from Spain, Sweden, Denmark and the United Kingdom. Other countries became involved later, including Germany, Italy, Norway, the Netherlands, Finland, Iceland, and the U.S.

The observatory was officially inaugurated on the June 29, 1985, by the Spanish royal family and six European heads of state.

The seeing conditions make it the second best location for optical and infrared astronomy in the Northern Hemisphere, after those at Mauna Kea in Hawaii. The site has some of the premier astronomical facilities in the Northern Hemisphere, including the adaptive optics corrected Swedish one meter solar telescope which provides the highest resolution solar imaging of any telescope, and the 10.4 meter Gran Telescopio Canarias. The Gran Telescopio's 36 segmented mirror primary is one of the world's largest single aperture optical telescopes.

