



THE OBSERVER

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

2009, International Year of Astronomy

<http://sbvaa.org/>

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Since 1958

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Meeting:

March 20, 2010

Location:

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

Pre-meeting Dinner, 5:00
p.m.,
Hometown Buffet, Loma
Linda, 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

The Aurora Explained

If you already know and love the fabled 'northern lights,' or if you're simply curious about this fascinating atmospheric phenomena, then this video is a must see! With the advent of supersensitive real-time video cameras, we'll actually be able to see them as they naturally appear.

Once, they were only captured on film with time-exposures. Though beautiful, they lacked the subtlety of color and movement which made them a real visual experience. Now we are able to fully experience these exquisite, dancing and haunting lights in their natural splendor. What causes them? What gives them color? What makes them move and appear like rays, curtains, folds and flickers? How high up are they?

This video from the Aurora Television Project, University of Alaska at Fairbanks will answer all those questions and more!



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Calendar of Upcoming Events

March 20, Club meeting at the Museum

April 17, Club meeting at the Museum

April 24, Moon Party outreach at the Museum

May 8, Saturn Party outreach at the Museum

May 22, Club meeting and Astronomy Day outreach
at the Museum

June 19, Club meeting at the Museum

The Discovery Channel Telescope (DCT)

The latest update reveals that the primary mirror is complete and ready for transport to the observatory site. The observatory facility is complete, needing only final installation and fine tuning of the mirror support structures and mount and testing. The 1.4 meter-meter secondary mirror, however, is on its second try. Apparently during a lightening process of drilling holes in the back of the mirror to form a honey comb structure, one hole was drilled too deep and a large fracture resulted. The mirror was not salvageable so a second mirror had to be cast, polished, coated and delivered. It is hoped that delivery will be this spring.

Photo courtesy of Lowell Observatory



Editor's Message

By Jim Sommer

March is prime observing time and the month of the Messier Marathon. For those of you who can still pull "all-nighters" RAS has once again extended an invitation to join them at their GMARS site in Landers. I can't do that anymore but I will be spending three nights camping and observing at Joshua Tree National Park. I have a new refractor that needs to be properly broken in.

The weather looks a though we may get a break so dust of your mirrors and objectives and get out there. Think of all the wonderful winter sights: Orion, Auriga, Taurus, the wonderful array of clusters between Canis Major and Monoceros, Gemini with M35 & NGC2158, Cassiopeia with its array of clusters, and M31/32/110 of course. Check your star charts and try for some of the more obscure faint fuzzies. And then, of course, there is Saturn! The are opening again as the planet moves along its orbit. Saturn reaches opposition on the 21st, the day after our meeing and will remain visible until early September. Don't miss it!

Star Party Report, Feb. 13 (or: Dark Skies Sort Of)

By Cliff Saucier

Saturday night on Clear Sky Charts looked excellent! Too bad the sky didn't live up to it's billing. Still, it was nice to be out, and reasonably warm for February!

We had been getting rain, and then more rain, but when I went on the weather forecasts and they said that Saturday may be clear, I almost couldn't believe it. And as it got close enough for the ClearSkyCharts to kick in, they were predicting an epic night. Wow! Plans are made to go out, with great anticipation and expectations. That night I even dreamed about being somewhere and telling a crowd, "you know, it's going to be really great for stargazing tomorrow night!" I have completed my metamorphosis into a complete nerd, but that was how wonderful the prospects appeared.

The recent rains had filled the dry lake beds, adding a little novelty to the long familiar drive. The dirt road up to the site was freshly graded, the place is being well taken care of, and I arrived first and took a little time to feel the pleasure of just being out there again. Starting to set up, and a SUV pulls up. It's the two new guys that were at our last meeting, and left before we really talked to them. It's nice to have a second chance to make friends. Erick Bernardel. and his friend Forrest Jordan. Erick has a real nice ten inch dobsonian, hand made, f/8. We were setting up when Steve Peeters and his son Ryan pulled in. He was a little late and was finishing setting up when he got caught by the dark. Always a little more difficult then.

Mars was bright and beckoning, and even though the mirrors weren't thermally stable yet, they showed high promise for later, with the North Polar Cap shining brightly and Syrtis Major passing off to the far limb. Forrest, who is new at this, looked through the eyepiece and just shook his head at the blurry, scintillating image that enthralled the rest of us. He has a good eye for dim stuff though, and saw a lot before the night was over.

Orion was placed well, and we really gave the Great Nebula a workout throughout the night, revisiting it regularly with different eyepieces and filters. What a magnificent sight! Now it was starting to get truly dark. Except in the deep southern sky, where I had hoped to see the Fornax galaxy cluster again, an amazingly crowded group of galaxies, maybe better than Markarian's Chain in Virgo. The sky stayed so bright I couldn't even find the guide stars, which I could at least find at the Salton Sea, and that was what I

would consider a bright sky. When there, the galaxies were visible, but poorly, I had higher hopes for our spot in Johnson Valley, but there's a lot more light pollution than in the recent past.

The transparency of the sky never lived up to it's billing, but we had a great time. Steve Peeters helping out with his push-to in bagging many objects that I've never seen. Hubble's Variable Nebula. Nice. The Intergalactic Tramp, one of my favorites, but hard for me to find. Thor's Helmet! Then Erick got out his binoviewer. Ohhh, those are nice. I've used them on the moon, and planets, but this time we took on the Great Orion Nebula, M42. We had been getting incredible peeks at the gossamer wonder, but this was something totally unexpected. The dark nebula just jumped out at you, very three dimensional. Very lovely and mysterious!

The evening was rolling on, and I thought I'd take a chance. Forrest seemed pretty new to this, so I suggested, "Forrest, try to get that brighter star up there in the telescope", pointing one out with the laser pointer. He had been using Erick's scope throughout the evening and was learning the ropes. He fiddled for a while, looked through the eyepiece, then back to the Telrad and finder. Back at the eyepiece, focusing, and then a slow exhalation. "...that's Saturn," low and quiet. His first time. Hooked now.

One-thirty and we have seen our fill. Deep draughts at the well. And I had enough coffee to try the drive home. Highway 18 across the not-so-dry lake was magical. The porch lights reflecting across the water, seeming to be some other place entirely. Another cup of "go" in Hesperia and my eyes stayed open till I got home at four. Drawback; I couldn't sleep till five. Maybe I should have just stayed.

This sounds like the end of this little tale, but there's a little more. The increasing light pollution problem is a battle that I am pretty sure we have totally lost. Coming down into Devore, the new FedEx installation was blazing bright. Acres of bright lights at four in the morning on a Sunday! They probably burned all through President's Day holiday, too. And down the freeway just a couple of miles, more new industrial zones, stealing our night sky. Thomas Edison may have saved us from the dark, but I don't think anyone had thought we would have to give up the stars as a part of that deal.