



THE OBSERVER

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

2009, International Year of Astronomy

<http://sbvaa.org/>



Volume #52, Issue 1

Since 1958

January, 2010

Meeting:

January 23, 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

(Carried over from November)

Diviner Observes LCROSS Impact

James Butts, SBVAA Club president and long time NASA/JPL Solar System Ambassador, will give the latest update on the mission and show one of NASA's short videos on the event. The talk will cover the current state of the mission up to this point.



The LRO Diviner instrument obtained infrared observations of the LCROSS impact this morning. LRO flew by the LCROSS Centaur impact site 90 seconds after impact at a distance of ~80 km. Diviner was commanded to observe the impact site on eight successive orbits, and obtained a series of thermal maps before and after the impact at approximately two hour intervals at an angle of approximately 48 degrees off nadir. In this viewing geometry, the spatial footprint of each Diviner detector was roughly 300 by 700 meters.

Crater Impact Characteristics?The primary goal of LCROSS was to measure the concentration of water ice (ice to dust ratio) in permanently shadowed lunar regolith. Setting constraints on water ice will set a fiducial for the LRO studies of hydrogen neutrons, that are expected to have water ice as a source. Several important processes occurred when the body struck the lunar surface, including the initial impact, ejecta and plume dispersion, and the exposure of fresh subsurface. The mission continuously monitored the impact events at a variety of spatial (m to km to exosphere scales) and temporal scales (sec to minutes to days) allows us to understand lunar impact processes and assess the likelihood that water ice, due to impacts occurring within the permanently shadowed target crater, may be distributed non-uniformly.

SBVAA Officers

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Newsletter Editor: Jim Sommer 909-792-3587

Calendar of Upcoming Events

January 23, Club meeting at the Museum

January 26, Outreach at Emmerton (sp?) Elem.
School

January 29, Mars at opposition & peak visibility

February 18, Outreach at Highland-Grove School

February 20, Club meeting at the Museum

February 24, Outreach at Barton Elem. School

March 20, Club meeting at the Museum

President's Message

By James Butts

Happy New Year to all! It has been a good year for us as a club, yet we have recently lost another member, friend and mentor to so many newbie's. This member stepped up numerous times and serviced as our vice-president. This man's name is **John Deems**, a man that not only reached out to people wanting to learn about astronomy, but helping people with real deep personal problems, shall we say youth and the law. Recently, A friend's found them selves dealing with a problem they knew nothing about, their son was busted for drugs. I called John and asked if he would talk with them he said sure. I suggested they speak with John and see what kind of advice he could give them. Thanks to his time and efforts, the young man was able to graduate high school, and get in a program for help, which all work well when the young man stood before the court and received no jail time.

A good kid with a very bright future who learned a great deal of wisdom because a man named John Deems took the time to give damn! Yes there are clubs with far greater numbers and do very progressive things, but this club, yes this club in my humble opinion has a Big Heart! Not just for astronomy, but also for people, real people with real life problems. This is the true measure of any organization! Like every person that has serviced as and officer of this club it gives you a feel of deep pride to go places and say , I'm a member of SBVAA.

If you recall during this year I had my friend Mike Simmons come out and speak on Astronomers Without Borders and IYA 2009, well do to the huge success of these programs world wide they are looking for ways to continue the growth of our hobby. So this year will have the following as one element to continue the growth of astronomy. The following is from AWB; **Global Astronomy Month (2010)** The great success of 100 Hours of Astronomy (100HA) in April 2009 showed what can be accomplished in astronomy outreach. As the first truly global outreach event, participation went well beyond regular outreach enthusiasts, with amateur astronomers, clubs, science centers and others taking part. The media took notice as local events by

the thousands brought 100HA activities to big cities, small towns and rural areas alike around the world, attracting the largest public audience ever. The excitement was contagious as the concept of a unified global event that encouraged everyone to look skyward swept the world.

Event organizers from around the world reported larger crowds than ever before. Everyone agreed that the excitement should continue, building on the great effort that went into making 100 Hours of Astronomy such a success.

It will be hard to follow a historic success like 100HA, a cornerstone project of the International Year of Astronomy 2009 (IYA2009). Even more ambitious plans are called for. Global Astronomy Month (GAM 2010) is AWB's response, with new ideas and opportunities to expand participation. Like 100HA, GAM will be a community-based, grassroots effort. But with the entire month of April dedicated to a wide variety of programs, everyone will be able to participate. Astronomy clubs and other organizations can plan events at times that are best in their countries. Weather-delayed observing events can be rescheduled. Good ideas can be picked up from others and used later in the month. There will be time for follow-up programs to successful events as well. And the big global one-day events that generated so much excitement in 100HA will still take place.

GAM will have more international collaboration and interaction than ever before. Behind the scenes of 100HA, organizers from around the world worked together, sharing their plans, trial runs and results. It was this collaboration that made 100HA into something new, and AWB and GAM will bring it to all participants. Along with discussions on the AWB forum and images in the gallery, new interactive tools such as audio and video connections will be added, making events even more collaborative and globally united than before. Event organizers have all told us that it was this sense of one big celebration that attracted astronomers and the public alike. Connecting people around the world in these events will create an even great sense of sharing, just as in AWB's motto and the slogan for GAM – One People, One Sky.

The global outreach community's enthusiasm and innovation was critical in making 100 Hours of Astronomy successful, and GAM will continue to bring together all that tens of thousands of enthusiasts worldwide have to offer. More will be announced on this web page by the beginning of 2010 – the first post-IYA2009 year, and a year that should see astronomy awareness continue to grow.

I feel we as SVAA, should honor our members that we know have passed away in this decade, during this event, which I hope we take part in. So please feel free to let us know how you feel about that! As many of you know all too well there is a lot of trading selling and buying that goes around here and because of that I will away be able to view the heavens with John Deems, for I purchased my 10" Parks Dob from John many years ago!

In closing let me begin the new year by saying Happy New Year and may we all work hard to make this a banner year in generating a new level of interest for our hobby.



John Deems

Though my soul may set in darkness, it will rise in perfect light.
I have loved the stars too truly to be fearful of the night.

Museum Public Outreach Dates, 2010

In December, the club meeting dates for 2010 were published for you convenience. Now, here are those for the outreaches.

Please mark the following Museum outreach dates on your calendar for 2010. All are on a Saturday except for October's at the Asistencia. Come and have fun!

April 24,	Moon Party (waxing gibbous moon)
May 8,	Saturn Party
May 22,	Astronomy Day (waxing gibbous moon & Saturn)
July 17,	Moon Party (first quarter moon)
August 21,	Moon Party (waxing gibbous moon & Venus)
September 18,	Moon Party (first quarter moon)
October (TBA),	Moon Party at the Asistencia

Editor's Message

By Jim Sommer

Happy New Year to all our members friends and guests. I hope the new year will bring you clear, dark skies and many nights of observing joy!

2010 will be a busy year for the club. Last month the meeting dates for '10 were published and this month (see pg. 3) you will find the dates for our Museum outreaches, school outreaches and club star parties. Please mark your calendars with these dates as a reminder to come out and have fun. You'll get a bit of learning, do a bit of teaching and enjoy the fellowship of amateur astronomers here and everywhere.

Club Star Party Dates

Locations of club star parties will be announced at the regular club meetings and in the newsletter.

January 16, Star Party (1 ANM)

February 13, Star Party (NM)

March 13, Star Party (2 BNM) Messier Marathon
[RAS's GMARS Site in Landers, CA.]

April 10, Star Party (4 BNM)

May 15, Star Party (2 ANM)

May 14th-16th, (2 ANM) **RTMC**

June 11th-13th, Star Party (NM) **Grandview**

July 10th, Star Party (1 BNM)

August 7th, Star Party (2 BNM)

September 10th-12th, (3 ANM) **Grandview**

*** **October 8th-10th Backup Date for Grandview** ***

October 9th, Star Party (2 ANM)

November 6th, Star Party (1 ANM)

December 4th, Star Party (1 BNM)

For newer members who are not familiar with the "NM" abbreviations above, "NM" stands for New Moon; the "A" for after and the "B" for before. The numeral indicates the number of days before or after NM.

Addendum to last month's report on Red Cloud Road observing site.

Red Cloud Road is a well graded dirt road but it is subject to developing "washboard" conditions depending upon weather and traffic. It is still easily passible by any car. You may, however, have to drive a little slower over the "washboard" sections.

Remembering John Deems

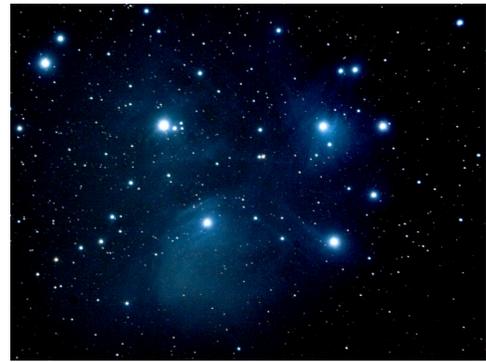
By Chris Clarke

As most of you already know, John Deems passed away on December 11, 2009. He had been in ill health for quite some time prior to this. Whenever possible, for the past couple of years, John and his wife, Andi, would be at meetings, outreaches and star parties. John was currently serving as vice president, but in year's past, had also served as club president.

John joined our group in 1997 and became an active member from the start. He really got into the hobby of astronomy and learned much quickly. He was a real "spark plug," usually right in the middle of things, helping members to learn how to set up and use their new scopes and showing them how to find cool objects in the sky.

Always the "life of the party," John was an engaging, gregarious fellow who enjoyed the company of others. John was always there to help out and offer ideas for the betterment of the group. He truly loved observing and could be found at just about every star party the club had. He would always call out that he had some really neat object in his scope and we'd rush over to see it and share the experience with him.

John was a very giving and fun loving person who really found "a home" with the SBVAA. He will be missed, but for those of us who knew him, he'll always be warmly remembered.



School Outreach Dates (and, again, Museum outreach dates) As of January, 2010

January 26, Emmerton Elementary School

February 18, Highland-Grove School

February 24, Barton Elementary School

April 24, Moon Party at the Museum
(waxing gibbous Moon)

May 8, Saturn Party at the Museum

May 22, Astronomy Day at the Museum
(waxing gibbous moon + Saturn)

July 17, Moon Party at the Museum
(1st quarter Moon)

August 21, Moon Party at the Museum
(waxing gibbous Moon + Venus)

September 18, Moon Party at the Museum
(1st quarter Moon)

October (date to announced) at the Asistencia



Friends...Old and New

By Cliff Saucier

Like many of us, I learned a little astronomy when I was young. The father of a friend in elementary school taught us some basic constellations. The Big Dipper, Cygnus and the Summer Triangle, Scorpius, and the favorite of almost everyone, Orion. Early views through my little Gilbert reflector were captivating. One of the few objects that I could find back then.

As the years rolled on, when the weather became crisp in the fall, Orion would start rising in the night sky. It was like an old friend visiting with me again, a comfort and familiar touchstone in the turbulence and uncertainties that life sends our way. The Great Nebula in Orion has now become even more treasured, one of the most impressive objects we see. This time of the year it's what we always make a point of showing to new people. Just beautiful in it's intricacies.

Last year I finally made a new friend in Orion, the fabled Horsehead Nebula. And these few words are some guidance on seeing it for yourself, now that the winter is coming in on us and the constellation rides high in the sky. First, you have to really want to see it, which means looking every time you get a chance. Secondly you need to be in a very dark sky with good conditions. And lastly you need the right combination of equipment; large aperture, a h-beta filter, and the right eyepiece. I've read everything about seeing the Horsehead that I would come across, and two pieces are the basis for what I did to see it. The first was by Rod Mollise, an amateur in Louisiana, [Uncle Rod's Astro Blog: Lords of the Horse](#) , and a piece by Barbara Wilson, who scans the Texas skies, [Magic Eyepiece](#).

It's agreed by all that the starting point in your search is the nebula NGC2024, often called the Flame Nebula. It's large and can be seen when you place Alnitak out of the field of view. Alnitak is the eastern belt star in Orion, and it's where all the action is. If the Flame isn't *very* visible, go back to

M42, because the sky conditions won't support further searching. But on those great nights, get out your h-beta filter. (I don't have one, as it has very limited applications, but sometimes they can be borrowed.) Now my understanding is that the narrowband filters, such as the Lumicon UHC, allow the O-III light through, as well as the h-beta! At least I'm going to be giving mine a try this year. IC434 is the reef of luminosity that Barnard 33 (the Horsehead) is silhouetted against, is very dim and needs patience to see. Then you may have glimpses of something dark, at first like a smudge of a thumbprint. Have a photograph of the area handy; you will be using it to identify the stars immediately around the Horse. What really worked for me was the choice of eyepiece. According to Barbara Wilson's piece, the Exit Pupil is all important in getting the most out of the filter. You will want an exit pupil of about 5mm. For the math, simply multiply your scopes focal length by the 5mm exit pupil, yielding the focal length of the best eyepiece to try. For me that's 25mm. Use a plossel-type [or Ortho] to keep the pieces of glass to a minimum, and the 52° field of view helps you place Alnitak out of the field of view.



Well, that's most of what I know on the subject, but you can bet I will be looking again this year! One of the most sought out of the deep sky objects, and maybe this will help you in your search to see it.

<http://uncle-rods.blogspot.com/2006/11/lords-of-horse.html>

<http://home.ix.netcom.com/~bwilson2/barbarasweb/MEyepiece.htm>