

FIRST LIGHT



Journal of the South Bay Astronomical Society - October 2004
on line at www.geocities.com/sbas_elcamino

Monthly General Meeting: Friday, October 1st, 7:30 PM

Guest Speaker : Dr. Vince Loyd (SBAS / ECC)

“The Moon Illusion”

Night Sky Network Workshop

Jenny Tieu, the JPL Education & Public Outreach Coordinator for the Navigator Public Engagement Program has written SBAS to request your support as a Night Sky Network representative on **October 6th, 2004** from **6-9PM** at **Mt. Wilson Observatory** in Pasadena, CA. JPL is hosting a training workshop for Girl Scout leaders and has set aside a portion of the training to familiarize the leaders to other NASA programs and networks. Being that the Night Sky Network is a successful NASA program, we would like to invite you to participate in the training to give the girl scout leaders a 5 minute overview of the Night Sky Network, what you do with the outreach tool kit, followed by a star party later that night. Please contact me if you are interested in participating.

- Joe Fierstein

Observing Reports

@Ridgecrest School – September 4th A few weeks ago I had installed an external power plug in my Telerad and made a cable harness so I could power both it and my digital setting circles from a small 12V gell cell in my rocker box and avoid having to change batteries in the middle of viewing sessions. This required the installation of a voltage regulator inside the Telerad, for which I had not provided reverse polarity protection. I had not yet marked the polarity of the wires that attached to the battery. In the past I had gotten away with this, but tonight I hooked up the polarity backwards, and within a few seconds heard a distinct "POP" from inside the Telerad. I instantly knew that I would be operating without it that night. Fortunately the digital setting circles were polarity protected and I was able to get the scope pointed at the alignment stars without the Telerad, so all was not lost. As I was struggling with this, another good turnout developed. The air temperature was warm though there was a fair amount of moisture in the atmosphere to reflect light back. The Milky Way could be dimly seen. Since I had no other way to point the 15 inch Dob, I started going through the Lumicon star list, which has no direct relationship to any other numbering system. I started by looking at every fairly bright red star I could find listed. There are quite a few, some redder than others, as you might expect. The Moon came up fairly early, about 10:30 P.M. I put a neutral density filter in but still burnt out my night vision looking at it. I need to get a darker filter for this scope.

@Redrock-Inyokern Road – On September 11th, I thought I wasn't going to make it out for this dark site trip but I was able to clear my way at the last minute. There was a long squall line of thunderstorms to the East. When I arrived the only people there were Ken Munson and his two daughters. As the sun set some more folks arrived - Garth Magee, Ken Rossi and his son. About sunset a family drove up in a van and asked if this was the star party. They had been invited by Tim Moore, who had not arrived yet. There was a -7 Iridium flare in the early evening. The squall line provided a very active light show far into the morning hours as it drifted to the East. Initially the Eastern half of the sky was obscured but this opened up as the night went on. The sky was not real steady, though at times there were areas that had pretty good seeing. Lately I have been trying to get off the beaten path with my observing, so in addition to looking at some of the usual Messier objects, I spent some time hunting down some red stars, color contrasting doubles and triples, dark nebula, and more obscure planetary nebula. There was enough

moisture in the air that the dark nebulae were very hard to detect. Eventually, we got our first view for the season of the Orion Nebula. The sky to the East was very unsteady, so only the four main stars of the Trapezium were clearly seen with the fifth popping out occasionally and no sign of the sixth. Saturn was up, but no detail could be seen, not even the Cassini Division. I took a two hour nap about 4:00 A.M. and got up just in time to look for two twilight Iridium flares that were to be in about the same spot in the sky within 15 seconds of each other. We were able to see the first but not the other, which was more than a magnitude dimmer.

- Greg Benecke

After reviewing the weather patterns of the last few days, it seemed that the western Mojave was the best place to be for a Saturday night's observing session. Arriving at the Inyokern Road site around 4:30 PM with two of my children, I was a bit worried on seeing the large thunderheads building to the east and slowly stretching westwards. As other club members began arriving towards sundown, though, the clouds slowly retreated and we were granted clear, although not very stable, skies for the night. An added plus was getting a ringside seat for the incredible light show of the thunderstorms.

Having recently purchased the newest version of Starry Night, I decided to try a different method for my target hunting this weekend. Instead of printing out lots of star maps, I decided to use the function for generating observing lists. For targets I chose a number of challenging open and globular star clusters as well as a large selection of planetary nebulae. Also on the observing list for the night was the occultation by the asteroid Palisana of the 7th magnitude star identified in the Hipparchos catalog as number 1642. This was my first time at attempting to observe an occultation and I didn't really have a feel for what it would look like. I got the scope pointed at the star, verified it against the only star chart I printed for the night and sat back to watch. By looking slightly off to one side of the star, I found I could just barely make out the 12.5 magnitude asteroid as it slowly neared the star. By the time the occultation was scheduled to appear, Greg, Garth and I were observing the star. At 10:05 it appeared to dim by just a bit only for a few seconds. It was very hard to tell for absolute certainty with the sky conditions being what they were that night. I checked the star again about half an hour later and verified that the faint dot of the asteroid was now on the other side of the star. It was rather fun to try to observe such a celestial event in real time.

After that excitement, I began to concentrate on my observing lists for the night. After several slews to various planetary nebulas, I realized that the sky conditions were just too unstable to clearly distinguish the tiny planetaries as different from the stars around them. I switched to the open star cluster list and found several nice star clusters. NGC 1342 in Perseus was very interesting in that, to my eyes at least, it resembled a Bat Ray, the large fish with a triangular body and long tail. NGC 7789 in Cassiopeia was a very beautiful, dense and large open star cluster consisting mostly of 7th magnitude and fainter stars. CR 399, also known as the Coathanger Cluster, in Vulpecula is a nice asterism of 6 bright stars in a line with 4 bright stars curving up from the middle to look like a coathanger. This one is better appreciated with binoculars or scopes with a lower F ratio that can see a wide field of view. NGC 6910 in Cygnus is a tiny little cluster that resembles the letter 'Y'. The muscleman cluster, near the Double Cluster in Perseus was a large open cluster of 9 magnitude stars. It was interesting in that it resembles a man striking the muscleman pose, i.e, arms at shoulder height with elbows bent to flex the biceps.

Although Starry Night gave me a large number of targets to choose from, I found I didn't enjoy working from just an observing list. I guess I'm just old-fashioned and prefer having a star map to select from. Having seen Garth's setup, with a laptop connected to his Nexstar 11, I've realized that that is definitely the way to go! The last targets of the night, after a brief nap, were Saturn, Mercury, Venus and the moon, all forming a nice alignment in the predawn sky. No details at all were visible on the planets as the sky was just too unstable. The final treat was a pair of bright Iridium flares just before sunrise. I saw the brightest of the two, -8 magnitude, but missed the second, a -5 magnitude flare. My daughter Rebecca reported seeing the second flare.

- Ken Munson

September 17th Mt. Wilson Trip Cancelled

Due to predicted cloudy weather for the Mt. Wilson viewing session was canceled at the last minute. Ray Grace sent me a view from the Mt. Wilson web cam that evening and it proved to indeed be cloudy, so I believe the correct decision was made. We will reschedule for another time. Unless we are a very hardy bunch, it may not be till spring since the nights are going to be getting very cold up there soon. Since there were a number of late cancellations for which no refunds have been given so far, I will just reset the list to include all who have paid, followed by those who were on the list but had not paid and those who were on the waiting list. If you wish to cancel and get a refund, let me know.

- Greg Benecke

Our SBAS Committee

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Monthly General Meetings



We normally meet on the first Friday of each month at 7:30 p.m. in the Planetarium at El Camino College. If the first Friday is on or close to a holiday, we usually defer the meeting until the second Friday of the month.

The Planetarium is on the south side of Manhattan Beach Blvd., one block west of Crenshaw Blvd. (near the center of the map at left). Click on the map to get a display that can be zoomed out for a regional view. The zoom display appears in a separate browser window, which can be closed to return to this page.

The domed roof of the planetarium is visible from the street. There is on-street parking, and we can often use campus parking: check inside to see if you need a FREE parking permit for your car. Park in northeast corner lot, temporarily, due to the construction project.

We enjoy the planetarium facilities through the courtesy of the El Camino College Administration, and have several faculty members of the Astronomy Department as members of our Club. Our meetings always include an informal opening, when new attendees are invited to introduce themselves and let us know about their interests in astronomy. Members share their latest news and observations at this time. The rest of the evening is devoted to guest speakers, who range from amateur astronomers to professional astronomers to representatives from local aerospace companies to college professors. We are fortunate to have all these talented people in our area, willing to come and talk to us.

Monthly Planning Meetings

Committee members (and anyone else with an interest in Society activities) meet each month, usually on the Monday following the general meeting. Meetings are sometimes rescheduled due to travel and other circumstances. Exact date and time of each month's meeting will be announced in the schedule of events in *FIRST LIGHT* each month, and should also be verified with a committee member by any member or visitor wishing to attend. All are welcome!

We will meet on Monday, October 4th at 7:30 PM at the home of Joe and Miriam Fierstein. Take Hawthorne Blvd. south past Pacific Coast Hwy. up the hill passing Silver Spur Rd. and Highridge until you get to the light at Eddinghill Dr., then turn right and go downhill to the 'T' intersection at Golden Meadow where you turn left up 2 blocks and turn left on Willow Dr. to 3rd house on the right side from the corner – 7022 Willow Dr., Rancho Palos Verdes.

SBAS Membership Benefits

Contact John Collins for magazine subscriptions at club rates: "Sky & Telescope" \$32.95 and "Astronomy" \$29.00! Make your check payable to SBAS and mail the payment and your subscription / renewal form directly to South Bay Astronomical Society, P.O. Box 1999, Redondo Beach, CA 90278.

Part of your SBAS membership dues goes toward membership in the Astronomical League. All paid members should be receiving the "Reflector", the league's newsletter, four times a year. As a member organization, we can participate in a number of award programs they offer. These are based on completing various observing challenges. Check out the Astronomical League website at www.astroleague.org

NexStar 8 Available to SBAS Members

All members in good standing (with at least six months of continuous membership) can borrow the club's Nexstar8 for up to 7 days. The fee of \$5 for a weekend, or \$10 for an entire week, is nonrefundable and will be added to the club's Accessories Fund "Wish List" for future purchases. A fully refundable deposit of \$200 cash or check is required. Loss or damage is the responsibility of the borrower. A copy of the complete South Bay Astronomical Society Nexstar 8 Borrowing Rules and Agreement is available upon request. The **Accessories Fund "Wish List"** – Member contributions of any amount or donations will be appreciated, as will any suggestions for new purchases!

October - Comets & Asteroids

Comets Visible In October:

<u>Name</u>	<u>Magnitude</u>	<u>Constellation</u>
2001 Q4	9.7 – 10.3	UMi-Dra
2003 K4	6.1 – 5.8	Vir-Crv
78P/Gehrels 2	11.0 – 10.6	Ari-Tau-Ari
2004 R2	3 – 10.5	Vir-Ser-Her_Oph
Macholz (2004 Q2)	9.5 – 7.9	Lep-Cae-Col

Comets at Perihelion:

<u>Date</u>	<u>Identification</u>	<u>Magnitude</u>
Oct 7	2004 R2	3*
Oct 13	2003 K4	5.5*
Oct 27	Gehrels 2	10.6

* Not visible on the day of perihelion.

Near-Earth Asteroid Flybys:

<u>Date</u>	<u>Identification</u>	<u>Magnitude</u>	<u>Distance</u>
Oct 18	2004 LF6	13.8	0.071 AU

Check the JPL Ephemeris Generator page for coordinates of the objects at:

<http://ssd.jpl.nasa.gov/cgi-bin/eph>

- Ken Munson

2nd Request - SBAS Members' Preference for Newsletter Delivery Required

In the past, SBAS was very fortunate that our newsletter reproduction services have been provided at "no charge". Circumstances have changed however, and we will now be paying for the monthly hardcopy newsletter reproduction costs to an outside service provider. This is an opportunity to expand the newsletter delivery process into more efficient and economical methods, thereby cutting down on the hardcopy production effort and costs.

Therefore, the SBAS Planning Committee is asking all members to declare their preferred newsletter delivery method from the following choices:

- ❖ I prefer to access the newsletter from the SBAS website.

Option: Please send me an email notification when the newsletter is available on-line.

My email address is:

- ❖ I need to continue receiving a hardcopy through the U.S. Postal Service.

You may email your preferred method to Greg Benecke, return this form at the October 1st General Meeting or the October 9th observing session at Ridgecrest School, or mail to SBAS, P.O. Box 1999, Redondo Beach, CA 90278.

Astronomy Subjects: A Universe of Things to Write About

It's ironic that astronomy can ever find itself short for subjects to write about in our club newsletters. Astronomy, its breadth as infinite as reality can get, its history, composed of mankind's awakening to scientific truth, its beauty, from our realization of its subtle and balanced mathematical and visual intricacy to the fact that it is, after all, our hobby, if not our passion. . . all of these depictions offer clues for many articles. I'd guess, too, that, in many respects, this interest of ours has much to do with a curious combination of our unique personalities and our life philosophy. That, alone, should make for, at least, one article among each of us, true? It's worth it, for us and for you, to explore, explain even, what sustains your interest in a subject that ties us together. There are all sorts of reasons that we are attracted to this `sport', and if you don't think of it as a sport, try lugging your equipment some distance from your vehicle, far from the road to a solitary place where, usually, the best views can be had, or braving 5 Fahrenheit because, your luck, it happens to be crystal clear, with great seeing that night. So...why do we do this?

There's the religious-spiritual reasons. Some of us may be looking through our fancy glasses in search of God, proving to ourselves again and again, that it is impossible to create this construction, what we see, by the "mere" rules of natural physics. Others may be, in the same act, trying to prove to themselves that God doesn't exist, that man's discovery of these rules will lead to something far more fascinating than, "In the beginning, God created the heavens and the earth". To both these people the enchantment comes from knowing our place in the universe, catching that dopamine spiked feeling we obtain when awe meets, say, M13. They all address the meaning of life from a slightly different viewpoint.

There's the social reasons. I couldn't count all the times that I've spent double observing during a star party. At those times, I found the people there, and their conversations, as interesting as the objects I checked off my stargazing list. I usually notice, too, that some of these same individuals are repeat conversationalists. You can count on their specialty, star party chatter, at every gathering. Their observing is relegated, typically, to an occasional visit to their scope, usually when there's an impulse to find an object someone else is having difficulty finding. The subjects of their stream of consciousness may involve intensive discussion and debate about past star parties, the latest equipment, philosophies of various sorts, or even current events: political, personal, and the weather, of course. They are only rarely annoying since the topics chosen are often our favorite ones, given the venue. The best thing about the socializers is that they are very generous, often preferring that others use their scopes, even more than they do themselves.

There's the obsessive-compulsives. These individual are multifaceted in that their quest for perfection leads them to learn many skills. With the principle of utilizing observing time in the most economical fashion, they are forever on a mission to acquire any type of equipment that will render this journey even more efficient. The reason for this is that they must check off the ever growing roster of objects compiled via the most advanced observing computer

programs available, as well as those lists obtained from S&T, Astronomy Magazine, club web sites, and the AOS compendium of objects which, if all observed and cataloged properly, will win them an award and recognition. There is a maturation process, though, with the O-Cs and it may be useful to be aware of the early signs.

I recall that awhile ago, a new club member, concerned about the proper things to do in preparation for star parties, sent out an email to all club members on the "Hot Mail" list. In my effort to forestall his inevitable drive to full O-C Observer Status I answered his question. Our email correspondence went like this: Among many questions, Tom asked: "Since I'm confused, I'm assuming other new members might be confused as well - so can someone explain how the observing sessions work?" I answered: "Yes, generally the amateur astronomer plans his observation session days, or better, weeks in advance. Using high tech computerized star charts and software, and/or the most accurate star chart available, he denotes a prioritized sequence of objects, during the expected length of time of the anticipated observation period. Eliminating all objects below 30 degrees, for clarity of course, he sequences them based on ideal transit times and location in the sky. This plan is printed out in spreadsheet format, encased in waterproof plastic and carried to the observation point along with all necessary materials.

"The first time out proves too difficult to find anything and, so, this plan is typically scratched as the newbie looks in everyone else's scope but his own. The second time out the newbie finds one of the objects and is so enthralled that, after showing it to everyone else, there's no time left for any more observing. The third time out, the newbie forgets his lenses and scratches his plans, looking through everyone else's scope but his own. The fourth time out, the now more experienced amateur astronomer decides to forget the plan, it's too much work and isn't followed anyway, and just looks at whatever is there at the time, or whatever everyone else is looking at, usually a Messier object or planet."

I hoped that, with some perspective, he'd be able to inject some humor into what usually becomes a very serious, and grim, task. Please, though, don't think me biased. I have some of that O-C in me myself. Actually, a lot of it. Let's just say I was trying to be anticipatorially empathetic. Anyway, Tom had a great sense of fun and retorted in kind. :)

I've only tapped the tip of a ballpoint pen on this subject. It is, like I said, as varied as all the people making up our coterie. But surely, to get back to what I've been trying to explain, we can find something to write about. Just try thinking about why you do as you do and how you feel doing it. Who knows. . .you may even come up with more than one article!

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Making its only West Coast appearance at the Skirball Cultural Center, Einstein is the most comprehensive presentation ever mounted on the life and theories of the greatest scientist of the 20th century. Co-organized by the Skirball, the Hebrew University of Jerusalem, and the American Museum of Natural History, this exhibition brings together original manuscripts and personal treasures, most never before exhibited to the general public, with interactive exhibits that illuminate Einstein's most revolutionary theories. The exhibition will explore the legacy of Einstein both as a scientific genius who reconfigured our concepts of space and time and as a politically conscious individual who spoke out against segregation, anti-Semitism, McCarthyism, and nuclear armament, and who championed such causes as the formation of the State of Israel. There will be a number of exhibition-related programs happening over the duration of the exhibition, including lectures, movie screenings and music concerts. The website for information on the exhibition is www.skirball.org

Schedule of Coming Events

1 October Friday 7:30 P.M.	Monthly General Meeting: The speaker for this evening is Dr. Vince Loyd on the topic "The Moon Illusion".
4 October Monday 7:30 P.M.	Monthly Planning Meeting Refer to page 3 for directions.
9 October Saturday Evening	In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting: If the weather conditions are marginal, contact Greg Benecke to confirm that he will be opening the gate! Take Hawthorne Blvd. south across Pacific Coast Hwy.; continue up the hill past Silver Spur and turn left at Highridge. Go one mile and turn left on Whitley Collins, up one block and turn left on Northbay Rd., the new parking lot is at the end on the left. Enter parking lot and turn left, the gate is at the east end (it should be open about 15 minutes before sunset) and a paved road leading into the playground where we have traditionally set up. If at all possible, drop your equipment off and park your car in the new parking lot (less than 200 feet away). If you are absolutely certain that your vehicle does <u>not</u> drip anything you can park with your equipment. <i>Drive with care</i> to avoid steel pillars supporting basketball nets...
14 JPL 15 PCC September 7:00 P.M.	Von Karman Auditorium Lecture Series – FREE "Mars Reconnaissance Orbiter: An Unprecedented Look at Mars", presented by Dr. Jim Graf, JPL Mars Reconnaissance Orbiter Project Manager and Dr. Richard Zurek, JPL Mars Reconnaissance Orbiter Project Scientist. The 2005 Mars Reconnaissance Orbiter search for evidence that water persisted on the surface of Mars for a long period of time, increases tenfold the number of spots surveyed close up and it will identify obstacles that could jeopardize the safety of future landers and rovers. The orbiter's telecommunications system will establish a crucial service for future spacecraft. This "interplanetary Internet" can be used by numerous international spacecraft. For more information call: (818) 354-0112. Current and archived webcasts can be viewed a http://www.jpl.nasa.gov
16 October Friday Evening	Out-of-Town Dark Sky Observing Trip – New Moon October 14th Contact Greg Benecke to confirm site location.
5 November Friday 7:30 P.M.	Monthly General Meeting: The speaker for the evening is Dennis Kidder on the topic "Amateur Radio Astronomy".
6 November Saturday Evening	In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting. Refer to October 9th entry for directions to the site & instructions on weather conditions.
8 November Monday 7:30 P.M.	Monthly Planning Meeting The location of this meeting will be announced in the October Newsletter.
13 November Saturday Evening	Out-of-Town Dark Sky Observing – New Moon November 12th Contact Greg Benecke to confirm site location.

South Bay Astronomical Society

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***General Meeting at El Camino College Planetarium:
Friday, October 1st at 7:30 P.M.***

Guest Speaker: Dr. Vince Loyd (SBAS / ECC)

“The Moon Illusion”

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South Bay Astronomical Society
P.O. Box 1999
Redondo Beach, CA 90278

Attention All Members!

❖ ***Follow instructions on page 5 to arrange for future Newsletter delivery!***