FIRST LIGHT

Journal of the South Bay Astronomical Society - September 2002
on line at www.geocities.com/sbas_elcamino

Monthly General Meeting: Friday, September 13th, 7:30 PM

Guest Speaker: Dr. Allan Rubin (UCLA)

”Meteors & Asteroids”

Observing Reports

@Mile 41.00 - After the trip to the White Mountains with the El Camino Telescope makers was canceled due to fires in the area, a few SBAS members decided to give the "Mile 41" site near Big Bear another try. Mike Rivas, Craig Gates, his son, and I met in the meadow a bit less than an hour before sunset. We were greeted by a bovine family with bull, cow and calf. The bull found us most interesting. Mike suggested we not look directly at the bull as he might take that as a challenge. So we busied ourselves with setting up our scopes. It was clear and the wind was calm. These seemingly mutually exclusive conditions had not been seen by us in months. As it got dark, Craig's son in law Trent joined us and the bovines had wandered away.

The moon was a two day old crescent and Venus was showing a nicely defined quarter phase. After polar alignment, Scorpio and Sagittarius were high up in the south so Craig and I spent some time hitting the highlights in these. Unfortunately Mike was having a frustrating time with trying to get his scope to cooperate with alignment. Mike and I eventually worked together and got it reasonably well aligned we spent some time picking some unfamiliar NGC objects from a star chart, just to get a little variety a bit off the beaten path. Many of these were 12th, 13th and even 14th magnitude objects. Most we were able to find, some we couldn't. There is a reason many of us stay on that beaten path. At one point, Craig was able to make out several regions of the Veil Nebula. Though the sky was fairly dark, the use of a light pollution filter helped in seeing it. We also tried to see some of the same regions in my 8 inch SCT, but not all were visible. The extra aperture of the 11 inch SCT made the difference.

As the night wore on, the temperature dipped into the high 30's. I had come prepared but the others had not anticipated it getting that cold. Mike turned in about 2:30 an offered to let me use the 12 inch LX200. This was an offer I could not refuse. The more I look through the big glass, the more I feel the tug of aperture fever. Just before Craig and I turned in about 4:00, Saturn was up and Orion was just rising above the tree tops. It was nice to see these old friends after several months without.

- Greg Benecke

@3 Points – Bill Eisele, Ruben Pelayo (a colleague from work) and my cousin, Aeli Johnson, made a quick trip up to a spot off the Angeles Crest Highway (Hwy 2) to try to observe the asteroid 2002 NY40. This site is a parking lot about 30 miles up Hwy 2 from where the Hwy leaves the 210 Freeway. The location is called “3 Points” as three hiking trails meet there. It's a convenient site to get reasonably dark skies and is only about a 45 minute trip from downtown LA. I had borrowed the club's Nexstar 8 in hopes that, between it and my Nexstar 5, one of them would be able to pick up the faint light from this small half-mile or less wide rock.

Coastal fog hardly cleared all day and began thickening in the afternoon which gave me great hopes that the light from LA would be blocked and we'd only have a three-quarter full moon to contend with. Unfortunately, as we

climbed above the fog layer, we saw that the upper atmosphere had a layer of thin clouds. They were just thick enough to make picking out dim 9th to 11th magnitude points of light next to impossible.

Although we had meticulously aligned the scopes and confirmed that we could point accurately to any object in the sky, the tiny asteroid eluded us all night. I had used the JPL ephemeris generator to generate a list of RA/Dec's for the night to aim the scopes at. This has been very accurate in finding many asteroids and comets but this night, the thin layer of clouds made picking out the faint asteroid impossible. The star charts I printed for every 15 minutes, confirmed that we were pointing in the right place but still we never found the asteroid.

Somebody once said that such high altitude thin clouds were an indicator of atmospheric stability. That was quite correct as we had the best view of Venus I've ever seen early in the evening. With my Nexstar 5 at 125x (10mm eyepiece) I was able to easily split the double-double of Epsilon Lyra 1&2. The clouds finally began to move out of the area around midnight (of course, after the asteroid had gone down behind the ridge!). We did a quick tour of several deep sky objects to show our visitors a taste of the things we can see with the telescopes. It made a pleasant end to an otherwise frustrating evening.

- Ken Munson

Mt. Wilson Reservations
October 4th

We have reserved the Mt. Wilson Observatory 60 inch Telescope for the whole night at $900 ($36/person if all 25 people, maximum, have paid reservations). We only have five openings left, although not all of those who have signed up have paid their fee yet. Please note that payment equals reservation. If we exceed the 25 slots, the first 25 paid will be going! Just as a reminder - preference must be given to current SBAS members and their immediate family (participants must be at least 12 years of age). We will take more signups at the Sept. meeting, and all payments should be made by that date as well. We will also ask for volunteers to drive and try to coordinate carpool arrangements at the meeting, as observatory parking is very limited.

We will meet at the gate to be escorted to the parking area and the observatory escort must lead cars out through the gate, in groups, when leaving periodically. Wear good shoes for using the stepladder and dress warmly (gloves & a warm hat may be advisable). Bring a lounge chair or sleeping bag to relax in, and food, snacks & water to last while you're there. You can bring your camera if you want to take handheld photos and don't forget your **red** flashlight!

If you're curious about the Mt. Wilson trip and haven't signed up yet, Laura Lucas has written a report on her first trip last year.

- Greg Benecke

Your SBAS Committee

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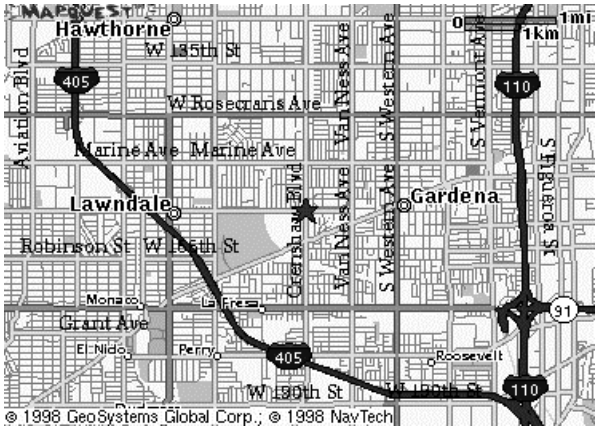
Monthly General Meetings



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. See page 4 for temporary parking instructions.

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 who are 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, September 16th at 7:30 PM at the home of Laura Lucas, at 2005 Mathews Ave. #A, in Redondo Beach. Take Artesia Blvd., west from Hawthorne Blvd. and turn right on Aviation Way. Turn right at the stop sign onto Mathews Ave. and go down the hill. Park on the street just past Green and Laura's house is on the left side in the back past the gates.

SBAS Membership Benefits

*"**Welcome**"* to our newest members – Deanna Chafe, Frank Gross and Luz Jovet!

Contact John Collins for subscriptions, at club rates, to "Sky & Telescope" at $29.95 and $29.00 for "Astronomy" magazines! Make your check payable to SBAS and mail payment and your subscription / renewal form directly to SBAS c/o Microcosm, Inc. at 401 Coral Circle, El Segundo, CA 90245-4622.

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! Do any members have a suggestion for the "wish list"?

"Friends of the Nexstar" is the group of members who have donated equipment or accessories for the SBAS telescope, and the planning committee has granted them the privilege of a wavier of the deposit & fee for borrowing the Nexstar8. Members include: Greg Benecke, Joe Fierstein, Dr. Steve Morris, John Evans and Dan Trimble.

SBAS Members $ Buy $ Sell $ Trade $ Listing:

- The SBAS steamer trunk case for an SC 8" or less is still available - for *free!* Call Greg Benecke if you are interested. Members send your advertisements to Laura Lucas!

SBAS Website News

I have added a Mt. Wilson Album to our website. Thanks to Ray Grace for all the new photos!
http://www.geocities.com/sbas_elcamino/galleries/index.html

- ***Alex Athas***

New Photos by SBAS Members

Dan Trimble and I went to the Inyokern site Friday, Aug. 9th, after reports that the Joshua Tree area and anywhere further south were clouded out and smoked out from fires. We had some high clouds and smoke from a fire to the north (which is why the White Mountain trip was cancelled). Fortunately, we had some clear skies anyway. The seeing wasn't great but it was relatively clear all night and we did get some photography in. The weather was very pleasant with temperatures in the 70s and the wind was mild. Dan did CCD work with his C14 and is still processing the results. My latest shot with my 10" SCT is on my website:
http://home.earthlink.net/~stevelindsey/M17.html

- Steve Lindsey

My Trip to the Mt. Wilson Observatory

Ridgecrest School was fogged out again, and every month our member's observing reports have references to the uncooperative weather, wherever they have journeyed to in search of clear skies with their telescopes – and this month, without much success. So, I thought that I would give you a beginner's version of last year's trip to the Mt. Wilson Observatory to accompany the photos that we received from Ray Grace – see them on our website. I was very excited about going up to the Mr. Wilson Observatory with the opportunity to observe through the 60 inch telescope all night long! It was the first time that I saw a large telescope up close and the history of this particular telescope was extremely fascinating. To prepare for our night's schedule, the Planning Committee met a my house to review the prior year's "target list" for a new "wish list" of appropriate targets to observe on a mid-August night. We found that the prior year's list would be acceptable as a starting point, to be revised based on seeing conditions and the weather.

On the appointed day, I met several other members at Greg Benecke's house to carpool up to the Observatory and we left Greg's house at about 3:30 PM, stopping at the bottom of the foothills in Pasadena for dinner. After a very good meal, we headed up into the hills and soon found the entrance to the Mt. Wilson Observatory where other carpooling members met us to wait for the docent to guide us to the dome of the 60 inch telescope. While we were waiting, we looked out over Los Angeles and walked a short way down the original path that was used to bring the telescope up to the site and it was surprisingly narrow and steep which enhanced the "imagined" magnitude of the project. We were meet by the docent and formed a caravan to drive through the park to the telescope site. Parking was very limited, making carpooling a must, and we proceeded to unload all our gear – various chairs, food storage packs, backpacks with all our viewing reference materials & equipment like a red flashlight (a necessity!), binoculars and a sleeping bag just in case it was needed. The weather was very warm which was an unexpected bonus so that we were very comfortable all night long.

We entered the dome, ascending two short flights of stairs carrying all our gear which we arranged in a semi-circle around the telescope and far enough away from the sides of the dome. This was done to avoid the electrical system which drives the top of the dome for orienting the opening to accommodate pointing the telescope at the chosen target. When we were relatively settled in, the docent briefly told us the history of the telescope. Each attendee was assigned an observer's sequence number for access to the eyepiece. Without all of us standing in line, we would call out the next observer's number as we descended the few steps on the viewing stepladder, allowing a relaxation period between observations. It was easy to climb up the stepladder and I did need to lean out over the side to reach the eyepiece a couple of times but it wasn't difficult to do.

The first order of business was to align the telescope using a two star alignment and we used the double star Alpha Hercules to check the "seeing". M92, a Globular Cluster in Hercules was beautiful, with clear separation of the rich field of stars. M10, a Globular Cluster in Ophiuchus, was more widespread than I would have expected and not as bright as M92. It is truly amazing that we can see M13, a Globular Cluster in Hercules, that is actually 25,000 light-years from Earth. The Cat's Eye Nebula in Draco was gorgeous; I saw the structure of the shells of matter within the vivid blue color and the central star was clearly visible, one of my particular favorites of the night. M57, the Ring Nebula in Lyra, was also vivid blue with the central star seen using averted vision. NGC7009, the Saturn Nebula's central star, outer shell and faint extensions were observed. We saw several galaxies, and although M32, NGC278, NGC404 and Stephen's Quintet were faint, I was in awe that I could actually see them! The "BIG" treats for me were seeing the planets! Uranus, at opposition in Capricorn, was seen as a good sized disk with two moons which were very faint. Neptune, also in Capricorn, looked like a very large star with Triton, its largest moon at magnitude 8, and 3 smaller moons were observed. Saturn, in Auriga, was deemed the "highlight" of the night by all of the observers. It is exciting to see Saturn in an 8" SC, but you haven't seen Saturn until you see it through a very large telescope. A stunning pale yellow, Saturn was observed with its rings inclined to Earth allowing us a view of the incredible Cassini's Division in all its glory and four moons were also included in the field of view!

The last object observed, with the naked eye, was a satellite, very bright and moving fast through the constellation Casseopeia. It was really exciting to see how fast it was travelling in its orbit from our viewpoint on the ground. An iridium flare was scheduled to occur and many of the remaining attendees went outside to observe the phenomenon just before sunrise. We had an opportunity to take pictures of the telescope in the morning light while we were organizing our gear to exit the dome. We loaded our various vehicles, the caravan was escorted out to the road and we were on our way home. This trip was truly a privilege that has given me many great memories and I look forward to other trips in the future.

- Laura Lucas

Schedule of Coming Events

31 August **Saturday** **7:30 P.M.**	**In-Town Dark Sky Observing at Ridgecrest School** – Weather Permitting 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 not drip anything you can park with your equipment. ***Drive with care*** to avoid steel pillars supporting basketball nets.
September	**Torrance Library Display** Joe Fierstein will present "JPL Explores the Solar System".
7 September **Saturday**	**Out-of-Town Dark Sky Observing –** New Moon (September 6th) Contact Greg Benecke for information on this out-of-town trip.
13 September **Friday** **7:30 P.M.**	**Monthly General Meeting:** Speaker for the evening is Dr. Allan Rubin and the topic is "Meteors & Asteroids". Dr. Rubin is a Geochemist at UCLA and his book "Disturbing the Solar System" was published in May.
16 September **Monday**	**Monthly Planning Meeting** See page 3 for location and directions.
19 (JPL) **20 (PCC)** **September** **Thursday / Friday** **7:00 P.M.**	**Theodore von Karman Lecture Series** – Admission is Free! "Unified View of the Universe" lecture is presented at the JPL von Karman Auditorium (JPL) and the Pasadena City College Forum (PCC). For more information, call JPL at (818) 354-0112.
28 September **Saturday** **Evening**	**In-Town Dark Sky Observing at Ridgecrest School –** Weather permitting. Refer to the August 31st entry above for directions to this site.
11 October **Friday** **7:30 P.M.**	**Monthly General Meeting:** Speaker for the evening will be scheduled at a later date.
14 October **Monday** **7:30 P.M.**	**Monthly Planning Meeting** Location to be scheduled.
17 (JPL) **18 (PCC)** **October** **Thursday / Friday** **7:00 P.M.**	**Theodore von Karman Lecture Series** – Admission is Free! "A Billion Suns: The Lives & Deaths of Stars" is the lecture is presented at the JPL von Karman Auditorium (JPL) and the Pasadena City College Forum (PCC). For more information, call JPL at (818) 354-0112.
26 October **Saturday** **Evening**	**In-Town Dark Sky Observing at Ridgecrest School** – Weather Permitting. Refer to August 31st entry above for directions to this site.

South Bay Astronomical Society

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General Meeting at El Camino College Planetarium:
Friday, September 13th at 7:30 P.M.

Guest Speaker: Dr. Allan Rubin (UCLA)

"Meteors & Asteroids"

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