

# ***FIRST LIGHT***



*Journal of the South Bay Astronomical Society - August 2002*  
on line at [www.geocities.com/sbas\\_elcamino](http://www.geocities.com/sbas_elcamino)

**Monthly General Meeting: Friday, August 2nd, 7:30 PM**

**Guest Speaker: Mike Weasner (SBAS)**

**”Astrophotography With A Small Telescope”**



## ***Dinner with JPL Speaker Brett Watterson***

I had the privilege of joining other SBAS members for dinner with Brett Watterson at the Torrance Marriott Hotel. Joe Fierstein made the reservation for us to dine in a semiprivate alcove and the food was excellent. I've been to many of our local observation nights but there are few occasions where you really get to know your fellow astronomers, and this was one of those nights. Brett Watterson asked us to tell him about ourselves and that was the beginning of a very fascinating conversation. I was surrounded by teachers, engineers and physicists, including some with military intelligence and NASA background experience. I really enjoyed the personal side of the evening, and hope that we will do this again soon! Joe's picture shows (top R to L) Brett Watterson & his guest Lynn, Jacques Linder, Steven Morris & his wife, (seated L to R) Marion Fierstein, myself, Fred Webber, Mike Mayerchak and Ken Munson.

**- Laura Lucas**

## ***Observing with ECC Telescope Makers***

**@Blair Valley** - On Saturday, July 6th, a small group of El Camino College telescope makers went to Blair Valley for some overdue dark sky observing. Our crew included myself, Joe Haberman, Leslie Shigeta, and Leslie's friend Sofia. As we drove through Temecula on the way, our prospects looked gloomy with clouds covering most of the sky. There would have been five of us, but Dave Wright turned back at Warner Springs, discouraged by the lingering clouds. This time, fortune favored the patient as the clouds blew over by 9:30pm and we had good skies the rest of the night with the expected amount of desert haze. The temperature was very warm with an overnight low around 70F. There were light winds until midnight and then calm thereafter. Finally, the casino on I-8 50 miles to our south did not operate the searchlights which plagued our last trip to Blair Valley. Overall, conditions were about as good as possible at this site.

We spent most of the night looking at old favorites such as Omega Centauri, M13, M8 (the Lagoon Nebula), M20 (the Trifid Nebula), M16 (the Eagle Nebula), M17 (the Swan Nebula), the Veil, NGC 6888 (the Crescent Nebula, which I discussed in detail in a previous trip report), M27 (the Dumbell Nebula), M57 (the Ring Nebula), NGC 6543 (the Cat's Eye Nebula), M51 (the Whirlpool Galaxy), M101 (the Pinwheel Galaxy), M81, M82, NGC 4565, and many galaxies around the Virgo/Coma clusters. Around M84/M86 in the Virgo Cluster, I counted 7 galaxies in a low power field; usually I can count 9 and sometimes 11 in this same field, so that gives an indication of the seeing. We also observed Stephan's quintet and environs including spiral NGC 7331 and some galaxies we had never seen before.

We devoted a good deal of time making comparison observations to test the new Nagler eyepieces Joe and I got at RTMC. We were both very pleased with the results. As an example, I replaced my Meade 14mm UWA with a new Nagler 16mm Type V. The Nagler has the advantages of reduced weight due to its 1.25" barrel and compatibility with the Paracorr coma corrector. Prior to testing it, I knew the Nagler 16mm plus Paracorr would give about the same magnification and field of view as the Meade 14mm, but was concerned about replacing what had been my favorite eyepiece for globulars. Turns out the Nagler clearly has better contrast than the Meade and is a little bit sharper. This was instantly apparent observing M13 and its neighboring spiral galaxy NGC 6207. Well, enough equipment reviews. I hadn't had a successful observing trip since last October, so camping out and revisiting my deep sky friends was a much needed breath of fresh air. The last thing I looked at before turning in was Neptune and Triton. I can't remember Triton being so easy to see.

## ***Next Out-of-Town Trip to the White Mountains***

**CANCELLED due to weather conditions - please check back here for updates.**

## ***Mt. Wilson 60 Inch Telescope Reservation***

We have booked the 60 inch telescope for Friday, **Oct. 4<sup>th</sup>**. We have the choice of either a full night at \$900 (\$36/person if full) or Sunset to Midnight at \$450 (\$18/person if full). We will pass a sign-up list around at the August meeting. Preference must be given to current SBAS members and their immediate family before non-members. There is a maximum limit of 25 people and participants must be at least 12 years of age. No smoking is allowed inside the observatory and personal scopes are not recommended.

## Your SBAS Committee

<b>President</b>	Greg Benecke	217-1512	BeneckeRUs@aol.com
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	Ron Rennie	326-5589	Rkgrennie@yahoo.com
	Mike Mayerchak	831-9188	Mmayerchak@aol.com

## 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, August 5th at 7:30 PM at the home of Joe & 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 3<sup>rd</sup> house on the right side from the corner – 7022 Willow Dr., Rancho Palos Verdes.

# SBAS Membership Benefits

**“Welcome”** to our newest member – John Brandt!

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](http://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 waiver of the deposit & fee for borrowing the Nexstar8. Members include: Greg Benecke, Joe Fierstein, Dr. Steve Morris, John Evans and Dan Trimble.

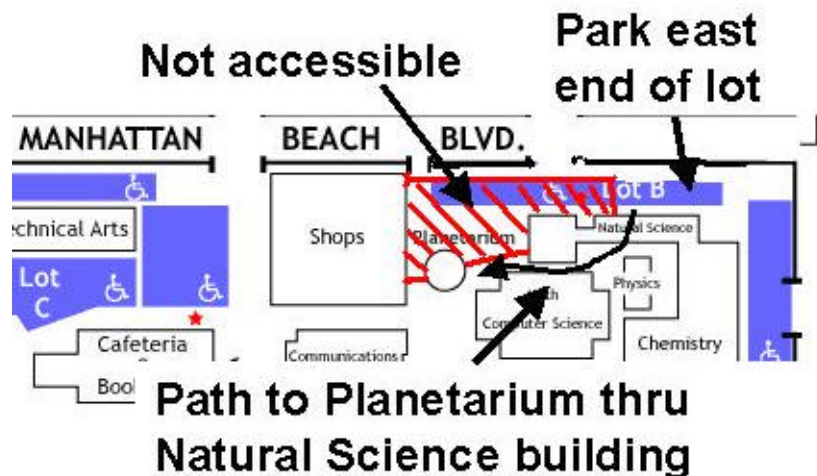
## SBAS Members \$ Buy \$ Sell \$ Trade \$ Listing:

❖ SBAS is offering a steamer trunk case for an SC 8” or less for *free!* Call Greg Benecke if you are interested. Members send your advertisements to Laura Lucas!

## El Camino College Parking Reminder

El Camino is remodeling the Chemistry and Physics buildings. They have installed trailers to use as classrooms in the west end of the parking lot we normally use. The grass and walkways are also blocked off. We are now using the east end of the parking lot and must walk through the Natural Sciences building then by the Math Building to the Planetarium. This map indicates the directions.

- Dave Wright



## Observing Reports

**@Ridgecrest School** - July 6 was fogged out. I went up there at the usual time and the only person there was Mike Rivas, who had not even bothered to bring his scope as he could tell from home that it was not going to be a good night. We chatted for close to an hour and no one else showed up and the fog was getting thicker, so we went home. I got a call from Shawn Belveal on his cell phone from the school asking if he had the right night. He said it was still foggy, so we had made the right decision. Mike Mayerchak is going to check out a new site to be used for his fall Astronomy class and will report on weather patterns and seeing conditions as a backup site to Ridgecrest.

**@Mile 41.00** - On July 13, several SBAS members converged near Big Bear in the meadow a couple of miles off of Highway 38 on a road at mile marker 41.00. Harry and Anne Koons, Shawn Belveal and his wife Lisa, Estelle and Jim Rapp, Annie Chiu and I made the trek. The evening started out nice and clear with reasonably steady skies. As the twilight dwindled we looked and Venus and the crescent Moon to the West. When the sky was fully dark, we could make out flashes of lightning to the Northeast. A few bands of clouds made their way through the otherwise clear sky. About an hour after full darkness, a large group of four wheelers came along the dirt road and sat at the intersection about 400 feet away for an inordinately long time, providing a significant distraction. After they left we noticed that the thunderstorm to the Northeast had dissipated into a hazy layer that was moving our way. This made it very hard to view any of the deep sky objects we had come to see. We did the best we could viewing objects in Scorpio and Sagittarius. When Andromeda was high enough to see the transparency was such that I could make only one of its companions. Normally both are readily seen at a dark site through my C8. Of course there was no wind the whole night, but around 1:00 A.M. a completely opaque layer came over and we called it a night.

I would like to note a web site that pretty accurately predicted the seeing that night. The Clear Sky Clock at <http://cleardarksky.com/csk> has proven over a number dark sky trips to be an excellent predictor of sky conditions. The site is run by Attila Danko in Canada. He adds viewing sites to his list upon request from astronomers. Many of the sites we use or sites near the sites we use are listed. On the home page, scroll down to the Browse list and click on California. You will see a long list of sites to click on. Now, if he could only add surface wind predictions!

- Greg Benecke

**@Inyokern Road** - I made my dark sky trip on Wednesday, July 10, new moon night. I made it as far as Ludlow before hightailing back across the Mojave to the Inyokern Road site. The temperature was about 115 when I arrived and it cooled down to a balmy 98 or so after midnight. A few scattered clouds dotted the sky but they quickly dissipated after sunset, so it was very dark and free of clouds for most of the night. Unfortunately, thunderstorms to the south created quite a downdraft that blew across the desert floor fairly steadily, at times it was enough to shake the telescope and cause less than great seeing. However, the upper atmosphere appeared to be pretty stable. I was able to resolve a number of close doubles although I could not split the close doubles of Epsilon Lyra 1 & 2. The sky was definitely not as dark as at Mid Hills and the western Mojave was significantly more hazy at ground level than it had been east of Barstow. The viewing to the south was less fantastic than at Mid Hills, mostly due to the light of LA and partly the storms. Still, I was occasionally able to make out the dark lanes of the Trifid Nebula when the wind died down.

That night was largely spent working towards my Nexstar 50 certificate. This is from a website for Nexstar owners or operators and has a wide range of interesting objects to hunt for using the Go-To capabilities of the scope. A lot of the ability to find the objects depends on ones ability to properly align the platform. I set my Nexstar 5 up in equatorial mode, usually my least accurate alignment. Must have done a good job this time, because even the southern hemisphere objects were nearly centered in the field-of view. I went through the list and managed to find 23 objects that were visible in the period from May to September. The objects range from globular clusters (M13, always spectacular) to double stars, galaxies, nebulae and asterisms. It was a really great variety of things to look at.

To the naked eye, the sky had a deep blue but not black appearance. I decided to try the Light Pollution Reduction (LPR) filter and was very pleased with the results. The LPR filter, under clear, dark sky conditions away from the city, dramatically improves the viewing. Light from stars and other objects was only slightly dimmed but the background was made completely black. This effect heightened the contrast of foreground objects against the black background. M51 came in with greater clarity than I'd ever seen it. Not only could I see the bright core of it and it's small companion, but I could even see the hazy disks of the spiral arms. It was very useful in observing nebulae, especially the faint ones. In bright ones, it could bring out the contrast of dark lines and structure in the clouds. The

Swan Nebula (M17) was especially beautiful in the LPR. The drawback of the LPR is that it does distort colors a bit so it is not as good to use when observing double stars.

Perhaps the most exciting for me was in seeing the entirety of the Veil or Network Nebula (NGC 6960 & 6992). This large supernova remnant is the scattered fragments of what was probably a ring nebula thousands or millions of years ago. It is very extensive and very faint. Without the LPR, I couldn't see it at all. With the LPR, I could see it like a delicate spider web arcing across the stars. The 6960 section of it had a very bright star at about the middle. I had to pan the telescope around quite a bit to be able to see the whole thing.

Having completed the available objects for the Nexstar certificate about 1:30 AM, I went on to explore the objects in a set of lists I downloaded from the web. Observatorio ARVAL, located in Caracas, Venezuela, maintains a bilingual website with lots of interesting information. What's really neat is a series of lists of bright, deep-sky objects that are well within the capabilities of most amateur telescopes. Some are well-known and others are rather obscure. Since I'd been having such success with the LPR I went through their List of Bright Planetary Nebulae first. I was again amazed at the ability of the Nexstar 5 to bring out such faint objects. Two of the best surprises were NGC 1501 in Camelopardalis and NGC 6369 (Little Ghost Nebula) in Ophiuchus. Both are listed as magnitude 13 objects in the database as well as in Starry Night. Without the LPR they were both invisible. With the LPR they appeared as small, round, faint gray ghosts. Too faint to see any structure but it was exciting to be pushing the telescope to the very limit of its capability. If anyone is interested the ARVAL website is: [www.oarval.org/welcome.htm](http://www.oarval.org/welcome.htm)

Throughout the night, I also observed a number of fairly bright meteors. Although a few came from other directions, the bulk were seen to be coming from a point in the southern sky. I counted a rate of 2 -4 per hour through the night. Later research revealed that July 10 is the peak of the Sigma Capricornid meteor shower. That makes sense with the direction of meteor trails I observed. After 2:00, clouds began moving in and by 2:30 had covered most of the sky. I decided to call it a night after what had been a thoroughly satisfying observing session.

- **Ken Munson**

## ***AstroImage 2002***

Orange County Astronomers' annual Astro-Imaging Conference will be held August 23-25 at the University of California's Irvine Campus. The 3-day conference covering the latest in film and CCD imaging techniques has been expanded to include an introductory workshop on astroimaging and exhibitor product workshops. The keynote speaker will be Jack Newton, an internationally recognized amateur astronomer and astro-imager who has pioneered the field of amateur CCD photography, especially the development of high resolution tri-color imaging. All are welcome to join the UCI Dept. of Physics & Astronomy at the UCI Observatory's 24" telescope and OCA's AstroImaging group will also set up their telescopes and imaging equipment.

Day 1 Fri. Aug. 23 7:00 PM – 10:00 PM

Introduction to AstroImaging, Types of Imaging and various overviews.

Day 2 Sat. Aug. 24 8:00 AM – 6:30 PM (Lunch provided)

Main presentations to be held in UCI's spectacular Crystal Cove Auditorium:

Jack Newton "Advanced CCD Imaging Techniques", Steve Mandel "Wide Field CCD Imaging", Ron Dantowitz "High Resolution Video Imaging", Ron Wodaski "Advanced Image Post Processing", Jack Newton – Keynote Address, Robert Reeves "Film Hypering Techniques" and Imelda Joson from Sky & Telescope plus other speakers to be announced.

Day 3 Sun. Aug. 25 9:00 AM – 4:00 PM

Visit all of the participating exhibitor booths. In addition, detailed interactive exhibitor workshops are aimed at helping you better understand and use the various astro-imaging products available. At the end of the day there will be a drawing for door prize giveaways randomly chosen from registrations (you must be present to win).

Registration (on or before Aug. 1<sup>st</sup>) \$49.00 includes Sat. lunch, morning & afternoon refreshments and conference proceedings on CD. Late and on-site registration \$65.00. Send check payable to Orange County Astronomers with your name, address and phone number to: Charlie Oostdyk, Orange County Astronomers, P.O. Box 1762, Costa Mesa, CA 92628 -or- register on-line at: <http://www.OCAstronomers.org/AstroImage>

## ***Schedule of Coming Events***

<b>2 August Friday 7:30 P.M.</b>	<b>Monthly General Meeting: “Astrophotography with a Small Telescope”</b> Our speaker is Mike Weasner, host of the “Mighty ETX” website, “Best Meade ETX Telescope website” according to ETX users worldwide: <a href="http://www.weasner.com/etx">http://www.weasner.com/etx</a>
<b>3 August Saturday 7:30 P.M.</b>	<b>In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting</b> 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. <b>Drive with care</b> to avoid steel pillars supporting basketball nets.
<b>5 August Monday 7:30 P.M.</b>	<b>Monthly Planning Meeting</b> See page 3 for location and directions.
<b>8-11 August Thursday-Sunday</b>	<b>Out-of-Town Dark Sky Observing – Cancelled</b> <b>Please check back here for updates.</b>
<b>13 August Tuesday 12:00 Noon</b>	<b>Palos Verdes Library Lecture</b> Joe Fierstein will present “The Sun, Analemma and Equation of Time”.
<b>22 (JPL) 23 (PCC) August Thursday / Friday 7:00 P.M.</b>	<b>Theodore von Karman Lecture Series – Admission is Free!</b> “Voyager – 25 <sup>th</sup> Anniversary” 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.
<b>31 August Saturday Evening</b>	<b>In-Town Dark Sky Observing at Ridgecrest School – Weather permitting.</b> Refer to August 3rd entry above for directions to this site.
<b>13 September Friday 7:30 P.M.</b>	<b>Monthly General Meeting:</b> Speaker for the evening must confirm the scheduled date with our Program Chairman.
<b>16 September Monday 7:30 P.M.</b>	<b>Monthly Planning Meeting</b> Location to be scheduled.
<b>19 (JPL) 20 (PCC) September Thursday / Friday 7:00 P.M.</b>	<b>Theodore von Karman Lecture Series – Admission is Free!</b> “Unified View of the Universe” 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.
<b>28 September Monday Evening</b>	<b>In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting.</b> Refer to August 3rd entry above for directions to this site.

# South Bay Astronomical Society

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*General Meeting at El Camino College Planetarium:  
Friday, August 2nd at 7:30 P.M.*

*Guest Speaker: Mike Weasner (SBAS)*

***“Astrophotography With A Small Telescope”***

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South Bay Astronomical Society  
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