

# **FIRST LIGHT**



*Journal of the South Bay Astronomical Society - January 2005*  
on line at [www.geocities.com/sbas\\_elcamino](http://www.geocities.com/sbas_elcamino)

**Monthly General Meeting: Friday, January 7th, 7:30 PM**

**Guest Speaker : Nora De Muth (SBAS)**

***“To the Sun & Beyond:***

***Two Weeks at Mt. Wilson Observatory”***

## ***Night Sky Network - Planet Quest Presentation***

SBAS was invited by Jenny Tieu, the JPL NSN coordinator, to give a presentation on Sunday, **Dec. 5th** at the Santa Monica Place mall. The talk was to be based on the Planet Quest kit that JPL had sent us. Ray Grace and I responded. Three groups of girl scouts were expected, so three stations were planned. First, was the JPL kiosk showing a video of Jeff Marcy explaining the search for planets outside our solar system, along with many lovely photos. Next, was to be the presentation and demonstration by SBAS of the various techniques used to find the EXO Planets using the material and ideas from the JPL kit. The third station was to be on the roof parking lot for observation of sunspots. The groups were to rotate, having 20 minutes at each station.

Alas, the weather conspired against us. Rain reduced the attendance so that the three groups were merged into one and the sunspot activity was brought indoors. All together, there were about 18 girls from troops 195 & 199, plus several adult chaperons. So, despite the rain it all worked out well. Instead of rushing through a brief 20 min. talk three times, we were able to give a single, more detailed presentation. Ray's explanation of the workings of a telescope and it's use in observing sunspots and other objects in the night sky was especially well received by the scouts, who asked many questions. We were able to wrap it up by 2:30, instead of 5:30 as originally planned. It really was a good session, and in the end, the weather worked in our favor.

If you are interested in the subject of planets outside our solar system I recommend a recently published book: "New Worlds in the Cosmos "by Michael Mayer & Pierre Yves Frei (Cambridge Press); the first confirmed discoverers of a planet outside our solar system.

**- Joe Fierstein**

## ***“Astronomy for City Dwellers” Class Begins Jan. 11th***

Explore the Night Sky using the latest “GoTo” computerized telescopes. Learn to recognize some constellations, view planets, galaxies and star clusters during observing sessions. No experience required to have fun discussing the solar system and beyond. The next P.V. Adult Education class begins Tuesday, January 6th from 7-9 PM, for six consecutive Tuesday nights. For registration and additional information, call **310-541-7626 ext. 707**.

## **Whaley Middle School Star Party**

Friday, **January 14th** – SBAS is expecting a huge turn out since several hundred kids and parents were in attendance last year! The kids are very enthusiastic and attentive, so lets make this year a great success too! **Directions:** Take the 91 eastbound. Switch to the 710 north. Exit Rosecrans and turn LEFT (west). The next block is Gibson; Turn LEFT (south) onto Gibson. The school is at 14401 S. Gibson, the southwest corner of Gibson and Rosecrans. Turn right into the parking lot and drive to the back and continue left around to the back of the school where the expansive PE fields are located. We'll set up the star party there.

## **A New Planetarium Projector for El Camino College**

GOTO is the manufacturer. Some of the specifications include: a limiting magnitude is 6.5, colors of the brightest stars and dozens of extended objects accurately depicted, digital interface with optical projection (we think that it is the best of both worlds). Extremely sharp star images (we measured them with a ruler on a 30-foot dome similar to ours), you can enter a date and the projector will configure the planets and nodes in seconds. It is the best projector AVAILABLE for accurately representing the night sky in a 30-foot dome (at least as of last year, and we think it is still true). It is smaller than our current projector, there are no obstructions when viewing the southern hemisphere, constellation figures can be projected, your own graphics can be projected, etc.

## **Mt. Wilson Observatory Trip Rescheduled for April 9th**

We have a long-standing sign up sheet, and I am also taking names for the waiting list, of which there are several at this point. As we get closer to the newly scheduled date, I will be contacting everyone on the sign up sheet to confirm that they still want to go, as most have already paid, or whether they want a refund. We will announce the status of the available spots when the necessary changes are made.

- **Greg Benecke**

## **Annual Membership Renewal**

Renew your SBAS membership – Keep this amazing newsletter coming plus meetings and observing trips! Renew your membership in the group that brings you great monthly programs, the company of fellow observers, and many chances throughout the year to share the excitement of the night sky with students and new friends. If you just joined us this year, then you can renew your membership on a pro-rated basis to adjust your membership term to the standard calendar-year schedule. Renewal cost as a function of when your membership expires, is as follows:

<b>Membership Expiration</b>	<b>Renewal Fee Due Now!</b>	
	<b>Individual/Family</b>	<b>Student</b>
Dec. '05 or later	\$ 0.00	\$ 0.00
Nov. '05	\$ 2.50	\$ 2.08
Oct. '05	\$ 5.00	\$ 4.17
Sept. '05	\$ 7.50	\$ 6.25
Aug. '05	\$10.00	\$ 8.33
July. '05	\$12.50	\$10.42
June '05	\$15.00	\$12.50
May '05	\$17.50	\$14.58
Apr. '05	\$20.00	\$16.67
Mar. '05	\$22.50	\$18.75
Feb. '05	\$25.00	\$20.83
Jan. '05	\$27.50	\$22.92
Dec. '04 or before	\$30.00	\$25.00

To renew, check your membership expiration date in the upper right corner of the mailing label on the back page of this newsletter. This is what our records show for your membership expiration date. Please renew, according to the schedule above, by check to: South Bay Astronomical Society, P.O. Box 1999, Redondo Beach, CA 90278. (Payments will also be accepted at our general meetings!)

## Our SBAS Committee

<b>President</b>	Greg Benecke	217-1512	BeneckeRUs@aol.com
<b>Program Chairman</b>	Joe Fierstein	377-9834	Joefiers@aol.com
<b>Treasurer</b>			
<b>Newsletter Reproduction</b>	John Collins	- - -	Jcollins@runbox.com
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<b>SBAS Website Webmaster</b>	Alex Athas	- - -	sbas_elcamino@yahoo.com
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	Craig Gates	376-6387	- - -
<b>Executive Committee</b>	Ron Rennie	326-5589	Rkgrennie@yahoo.com
	Mike Mayerchak	831-9188	Mmayerchak@aol.com
	Mark Braden	540-2810	Bradenm@fnic.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. 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, **January 10th** at 7:30 PM at the home of Laura Lucas, 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***

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](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, as will any suggestions for new purchases!

## ***January - Comets & Asteroids***

### **Comets Visible:**

<b>Name</b>	<b>Magnitude</b>	<b>Constellation</b>
2003 K4	6.2 – 7.5	Pic-Cae-Hor-Eri
Macholz (2004 Q2)	6.0 – 4.2	Tau-Ari-Per-Cas

### **Comets at Perihelion:**

<b>Date</b>	<b>Identification</b>	<b>Magnitude</b>
24 Jan 2005	2004 Q 2 (Macholz)	4.5

### **Near-Earth Asteroid Flybys:**

<b>Date</b>	<b>Identification</b>	<b>Magnitude</b>	<b>Distance</b>
No visible near-earth asteroids.			

Check the JPL Ephemeris Generator page for coordinates of the objects at:  
<http://ssd.jpl.nasa.gov/cgi-bin/eph>

- **Ken Munson**

## How to Enter New Comets, Asteroids or Satellites into Starry Night

As anyone who's ever used Starry Night software to explore the sky and/or plan a night's observing session, one of its neatest features is that it has built into it an automatic update feature. As a minimum, every two weeks you can expect it to ask you if you want to download the latest comet/asteroid/satellite files from their website. In general, this works very well. However, I have found many occasions when the latest newly discovered comet or near-earth asteroid that is flying by is not contained in their automatic update feature. What can you do if you'd really like a chance to observe these objects but don't want to wait another two weeks? You can force an update but, if they haven't updated their website you're still out of luck. Or are you?

Since I am the impatient type and, thanks to my work, know a couple of things about orbits, I went looking and found some websites that can provide the information needed to enter the orbital parameters into Starry Night and do your own update. That way you know you have the newest comet discovery in your database and have a good chance of finding it. If you are interested in finding out the details, my complete article can be found on the SBAS website or you can make arrangements to pick up a hardcopy at a General Meeting!

- Ken Munson

## Observing Reports

**@Ridgecrest School – Dec. 4th** Rained out, even though the sky was perfectly clear later that night!

**@Cottonwood Springs – Dec. 11th** It was clear with mild temperatures, the low for the night was about 40 F in Joshua Tree National Park. The seeing was good, though the prediction at the Clear Sky Clock web site was for the top notch seeing. It was a small contingent for this trip, just Ken Munson and his daughter, Garth McGee and myself. However, we set up next to an ex-SBAS member, Bob Noss, with his impressive 25 inch Obsession Dob with Servo Cat GOTO drive. It's a pretty awesome sight to see an eleven foot truss tube assembly slewing around faster than your average Celestron or Mead GOTO. And it consistently landed the object within the field of view at 150 plus power.

Christmas had arrived early for me this year and I had some new accessories to try out this evening. Ever since getting my 15 inch Dob, I had noticed and become more sensitive to the coma in the outer part of the field of view, especially in wide field views. To combat this I purchased the Televue Paracor. The change in the image instantly sold me on the value of this device. Stars are now pinpoint all the way to the edge of the field. This provides the advantage of being able to see dimmer stars off the field center as the light is concentrated into a point instead of being spread over a small blob. The view of the Double cluster in Perseus was dramatically improved with the Paracor in place. I also got a couple of new filters to try, a Lumicon H-Beta and a Televue Nebustar (UHC type) nebula filter. I got the H-Beta to see the Horsehead Nebula this Winter. While we were able to see it with the filter, it is still a subtle sight. We even tried it in the 25 incher and it was clearer but still not what I had really imagined. The H-Beta did come through well on the California Nebula, which was actually better viewed through the smaller scope. The Nebustar provided a significant increase in contrast for the Veil, Orion and various planetary nebulas. I'll be interested to see at the next Ridgecrest School session if it can improve these in the presence of light pollution.

Later, Saturn was high above and the seeing at its best for the night. During the brief moments of really steady seeing, the Cassini Division was crisply delineated and there was a hint of the Encke minimum. The bands on the planet surface showed good detail. The six brightest moons could be seen. Jupiter never got high enough before I turned in to get up into steady air to see more than just the major bands. The four bright moons were in a tight group to one side. It was a great night under the stars!

- Greg Benecke

**@Cottonwood Springs – Dec. 11th** A welcome change in the weather for the better and fortunate timing of things at home permitted me to make the dark-sky trip to Cottonwood Campground in spite of the busy holiday season. After about 3 months of not being able to go on dark-sky trips, this weekend made a nice early Christmas present. A major target for the evening was Comet Macholz (2004 Q2). Once again, I was setup using the laptop to direct the scope. After spending a lot of time doing a polar alignment, when I clicked on the comet on-screen, the telescope slewed and the comet was dead-center in the eyepiece. It was very bright, being around magnitude 5 or 6, with a large hazy cloud surrounding the bright center but with no easily discernable tail. After the comet, I turned to the Nexstar Observing List (NSOL) software. Written by Nexstar users, it is downloadable and comes with several nice deep-sky object lists and has the capability for users to create their own list. Tonight's primary targets were on a list

of my own making: the top 15 Visual Arp Peculiar Galaxies. Most of the ones on my list are close pairs of galaxies, several of which are actually in the process of colliding.

M77 makes the list, being a Seyfert galaxy with a small bright core, which probably hosts a massive black hole. Not really very interesting this evening being just a hazy fuzzball. NGC 1097 was a little more interesting as it is a barred spiral. The large bar showed up well and with a little patience and averted vision, I could make out the faint 'S' shape of the two spiral arms. M82 also makes the list. It's always fun to put it in the same FOV as M81 and compare how different they look. The same can be said for M65 with its nearby companion M66. NGC 3395/3396 was very interesting. Like M51 (which also makes the list), it is actually two galaxies in the process of colliding. Both galaxies are very distorted and with averted vision I could just make out a tendril of a faint trail tying the two together. NGC 4485/4490 is another fine pair of colliding galaxies. NGC 4631 is a nice, elongated galaxy, thicker at one end, hence the name "Whale Galaxy". At the time I observed it, it was still low on the horizon so I could not make out its tiny companion. I finished off the Arp List with M51, which still being low on the horizon was not as spectacular as it often is.

I also spent a little time doing some more photographic experimenting. I managed to come away with pictures of M42, Comet Macholz, M1 and NGC 2362. I was really pleased with my shot of M1 since, as it was straight overhead, I couldn't get a look through the camera to verify it was there. I crossed my fingers, opened the shutter and guided it for the 4-minute exposure. Considering my photographic skills, I was really happy to get such a nice picture of it. NGC 2362 is one of my favorite little star clusters and is located just off the tail of Canis Major. With an OIII filter, one can see the last remnants of the nebula out of which these stars were formed. Alas, the nebula did not show up in the photograph. My last photo attempt was M46. Unfortunately, my guiding was a bit off and the photo didn't turn out all that well, although it was nice to see that I really had managed to capture that faint ring nebula that is visible with this cluster.

I finished up the night using the NSOL again to scan through a large double star list. Given the sky conditions which varied slightly through the night, double stars made a good way to check how good the seeing was. Unfortunately, for most of the night, it wasn't good enough to split much of anything below 4 or 5". Sirius's faint companion is supposed to be separated by about 3" now but the sky conditions made bright Sirius so fuzzy that nothing near it could be seen. After going through a number of nice double stars, I managed to get my foot tangled in the cable and broke my hand controller, putting my scope out of commission. So I closed up shop and went to bed for the rest of the night. One thing I learned is that I've got to find a way to more effectively redden the screen on my laptop computer. The red screen function in Starry Night is not enough. The Nexstar Observing List software also has a red screen function which makes everything so red I can't actually read the screen.

- Ken Munson

## ***NASA Chief Resigns After Three Years***

NASA administrator Sean O'Keefe has resigned after three years in the post, a tenure that was marred by the space shuttle Columbia disaster that killed all seven astronauts on board. O'Keefe was also at the helm when Bush laid out his bold new vision for the space program with the return of a manned moon mission and a manned mission to Mars. Under that initiative, the space shuttle program is to be retired by 2010. In his resignation letter to President Bush, O'Keefe said he would remain on the job until a successor is named and "in the hope the Senate will act on your nomination by February."

Shortly after joining NASA in December 2001, O'Keefe focused on eliminating a \$5 billion budget shortfall for the international space station program, and he sought to introduce other management and budget reforms. He had been expected to be a transitional figure when he arrived at NASA as the agency's 10th administrator, in place for the short term to fix budget strains created by the international space station. But he also has faced criticism from within the agency for his decision to stop servicing the Hubble Space Telescope, a decision that will bring an end in the coming years to the historic observatory that has revolutionized astronomy. A new congressionally mandated report has recommended NASA dispatch a space shuttle mission to service it soon after the shuttle fleet is safely returned to flight. The report rejected NASA's position that any future Hubble servicing mission would have to be conducted robotically. O'Keefe recently announced that the next space shuttle is expected to fly to the space station in May 2005.

- CNN

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

<p><b>1 January Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b> – Weather Permitting: If the weather conditions are marginal, contact Greg Benecke to confirm that he will be opening the gate!</p> <p>❖ <b>Important Note: This date is subject to cancellation, so contact Greg Benecke to confirm that SBAS members will be meeting on this evening of New Years Day.</b></p> <p>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...</p>
<p><b>7 January Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b></p> <p>The speaker for this evening is SBAS' Nora De Muth, granted the 2004 STRONG JPLUS AWARD for one outstanding ECC science student. Nora spent two weeks interning at the Mt. Wilson Observatory.</p> <p>❖ <b>Important Note: Due to the new Planetarium Projector installation, we may be meeting in the adjacent Math building. If necessary, a note will be posted on the Planetarium Door!</b></p>
<p><b>8 January Saturday Evening</b></p>	<p><b>Out-of-Town Dark Sky Observing Trip</b> – New Moon January 10th</p> <p>Contact Greg Benecke to confirm site location.</p>
<p><b>10 January Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b></p> <p>Refer to page 3 for directions.</p>
<p><b>14 January Friday Evening</b></p>	<p><b>Whaley School Star Party</b></p> <p>See page 2 for detailed instructions.</p>
<p><b>29 January Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b> – Weather Permitting.</p> <p>Refer to January 1st entry for directions to the site &amp; instructions on weather conditions.</p>
<p><b>4 February Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b></p> <p>The speaker for the evening will be announced in the February newsletter.</p>
<p><b>5 February Saturday Evening</b></p>	<p><b>Out-of-Town Dark Sky Observing</b> – New Moon Feb. 8th</p> <p>Contact Greg Benecke to confirm site location.</p>
<p><b>7 February Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b></p> <p>The location of this meeting will be announced in the February Newsletter.</p>
<p><b>23 February Wednesday Evening</b></p>	<p><b>Montemalaga School Star Party</b></p> <p>Details will be included in the February newsletter.</p>

# South Bay Astronomical Society

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

***Guest Speaker: Nora De Muth (SBAS)***

***“To the Sun & Beyond:  
Two Weeks at Mt. Wilson Observatory”***

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

❖ **SBAS Membership Renewals - Follow Instructions on Page 2!**