

FIRST LIGHT



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

Monthly General Meeting: Friday, February 1, 7:30 PM

Guest Speaker: Mona Delitsky (JPL)

”Ice Chemistry in the Outer Solar System”

The Planetary Society Asks the Public to Speak Up About NASA Missions

NEWS RELEASE At NASA's request, the National Research Council is conducting a planetary science community assessment of the priorities for U.S. planetary research programs for the next 10 years. The Planetary Society has been asked to assist this "decadal survey" by seeking input from the general public about planetary exploration. Respondents can access the survey questionnaire by clicking here: <https://www.planetary.org/survey/> The deadline for completing the form is January 31, 2002! All individual views expressed in the survey will be kept anonymous.

"This is an exciting and rare opportunity for the public to provide input to NASA's planning for the next ten years of planetary exploration," said Bruce Betts, Director of Projects at The Planetary Society. "We encourage everyone to take advantage of this chance to be heard." NASA selects its missions and scientific objectives based on many considerations, including the anticipated scientific return, cost, feasibility, and public interest.

The brief survey includes sections on prioritizing the ultimate purpose of US planetary exploration, selecting the most important missions (i.e. Pluto, the Moon, Saturn, etc.) and whether it is preferable to mount missions to new bodies not previously visited by spacecraft or missions to explore previously visited objects in greater detail. The questionnaire also asks how people prefer to learn about the results of exploration missions, through the internet, lectures, magazines or some other source.

THE PLANETARY SOCIETY was founded in 1980 by Carl Sagan, Bruce Murray and Louis Friedman, to advance the exploration of the solar system and continue the search for extraterrestrial life.

SBAS Supports “Science Nights” at Local Schools

@ **Cornerstone Elementary School** - Club members are invited to put on the star party for the annual Science Night at Cornerstone Elementary School Science Night in Rancho Palos Verdes. This is one of the darker elementary school sites in the area. On Friday, **Feb. 8th** (only 4 days before the new moon - the sky will be nice & dark, weather permitting). We've had great turnouts in the past from the club & school and they are an extremely appreciative crowd. There will be a pizza dinner provided in the Multi-purpose Room free to all club members supporting the event. The Science Night is officially from 6 to 9:00.

Directions: Go up Hawthorne Blvd. past the Peninsula Center to Grayslake and turn right. Go over hill and down the other side to Groveoak and turn left (it is one block past Mossbank). The school is 2 short blocks on the right side on Groveoak. The gate off the front parking lot on the left side will be open by 5:00 p.m. Folks with scopes of

any size are welcome to drive down the ramp at the gate to the baseball field and turn right and drive over to the blacktop around the basketball courts where we will set up. You can call Steve Lindsey for any additional details at 364-8851 (daytime) or 540-0724 (evening). See you there!

@ **Monetemalaga School** – A “Star Party” supported by SBAS on Thursday, **Feb. 21st** from 5:30 to 8:30 P.M., at the school which is on the top, back side of the hill with no street lights so viewing should be great. “We will have dinner for your astronomers and be glad to make a donation to your group. Thank you so much, we are very excited!”
Cathy Webster, Event Coordinator.

Directions: Take Hawthorne Blvd South to top of peninsula. Turn right at Grandvia Altimira (there's a 7-11 on the corner). Go 5 blocks to Via Visalia turn **left**. Go to bottom of small hill, 3 blocks, turn right on Via Nogales. The school is on left side of Via Nogales.

Ecological Consequences of Artificial Night Lighting Conference

Co-sponsored by the UCLA Institute of the Environment, The Urban Wildlands Group will convene a two-day conference of leading scientists to establish the current state of knowledge about the ecological consequences of artificial night lighting. The Urban Wildlands Group is dedicated to the conservation and enhancement of natural habitats in urban and urbanizing areas seeking to protect and restore biodiversity through restoration, research and education. Friends of the organization include the International Dark-Sky Association and the Palos Verdes/So. Bay Audubon Society. Projects have included the Vincent Thomas & Hennessey Bridges, the El Segundo Blue Butterfly and the Palos Verdes Blue Butterfly. For more information check their website: www.urbanwildlands.org

Use Intelligent Lighting to Enjoy the Night *Quoted from the 12/22/01 edition of the L.A. Times*
Re: “It Could Soon Be Lights Out in Calabasas”, Dec. 17; Attorney Jeffrey Aran errs in saying that “the stargazers have to look at the business reality of an urban environment” -implying that they don’t already. Outdoor signs are not the problem; they are illuminated (for free) many hours a day by the sun. It is wasteful lighting practices that are the problem. All we ask is that lights be pointed downward, at an appropriate power level. Sideways lighting (light trespass) creates glare that ruins the appearance of the community and creates a blinding distraction for drivers. Upward lighting (light pollution) is sheer waste, using precious resources to light up the undersides of birds and clouds. Nobody is asking that we all sit in the dark for the benefit of a few “stargazers”. It would be wonderful if intelligent lighting practices allowed us all to see our natural birthright, the dark night sky. **Steven Morris Torrance**

Help Stop Light Pollution

Occidental College wants to flatten one side of the last undeveloped hillside in Highland Park and Eagle Rock to build yet another ball field and parking lot, not to mention an enormous hammer throw cage half-way up the hill! This Mt. Figi hillside area can be seen for miles around. If Oxy has its way, the ball field lights will be seen from miles away. Forget walking and hiking! Oxy students and neighbors who hike in the area will find the natural beauty gone, replaced by asphalt, concrete, light towers, and bleachers - and locked gates. Forget nature! Dozens of native trees will be cut down. Homes for hawks, owls, ground squirrels, opossum, raccoons, and more will be bulldozed -- for a parking lot, a ball field - and a hammer throw cage!

And why?? Oxy has a softball field already. It's 1 foot too short. Maybe 10 feet. Who knows? Oxy keeps changing the number! They say the field can be fixed but they don't want to. They want to move its noise - and new lights -- as far away as possible, up on the pristine Mt. Figi hillside. What's more, Oxy wants to install lights on all its existing fields as well -- the base ball field, the soccer field, the multipurpose field, etc. In all, something like 500,000 watts of light will shine onto Oxy fields and into the homes and yards for neighbors all around.

The City Zoning Board can Stop Oxy... if we ask them to! Help us to Stop Oxy! Please sign the on-line petition, at <http://www.stopoxy.org/>. Anyone can sign! You do NOT have to be a registered voter. You just need to care about light pollution! If you do not have Internet access, please call (323) 340-8897 for paper petitions and information.

- Dr. Steven Morris

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.

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, February 4th 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 3rd house on the right side from the corner – 7022 Willow Dr., Rancho Palos Verdes.

SBAS Membership Benefits

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 dues to the SBAS 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! Thanks to Dr. Steve Morris for generously donating a Televue 1.25 inch 25mm Plossel Eyepiece for the Nexstar. 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: Lee Heflinger has several years of Sky & Telescope, some going back as far as 1956. They are available free to any interested party! Call Lee at (310) 378-4929. Congratulations to Bill on his purchase of Bob's 13" Odyssey. Members send your advertisements to Laura Lucas!

SBAS Returns to Ridgecrest Observing Site!

In-Town@Ridgecrest School – This was the first in-town viewing session of the new year and the first time back at Ridgecrest School after being locked out for months. Thanks to the efforts of our president, Greg Benecke, our keys will once again open the gates. We also have insurance coverage when we are on the school property and written permission from the powers that be. There was a good turnout of members, both with and without telescopes. Those attending the session were Greg Benecke, Joe Fierstein, Dan Trimble, Shawn Belveal, Bob Baker, Tony Sandate, Roy Santos, Fred Weber, Ken Munson & Elyssa, Bea Collux & Marisa, Bill Eisele, John Evans and myself.

It got dark between 5:00 and 6:00 and the sky was covered with intermittent high clouds initially. Later on about 9:30 the clouds moved on to the east and we enjoyed clear sky for a while. The air was unusually dry with no dew settling on the equipment like it normally does. The stars were not twinkling and the upper air currents were calm enough to provide us with some excellent seeing conditions for Jupiter, Saturn and Mars. We spent some time watching one of Jupiter's moons and it's shadow transit the planet. The marine layer moved in and gradually got worse. It wasn't clear or dark enough for the Andromeda Galaxy and the Orion & Eskimo Nebulas to come in very good. At times, the light from the city below bounced off the clouds and lit up the playground like a full moon. At midnight when the last of us left, a fuzzy Jupiter overhead was all that was visible.

- J. Madison

Dark-Sky@Redrock-Inyokern Rd. - It was mostly overcast when I arrived about a half hour before sunset. I found Ken Munson all set up with his three daughters enjoying the outdoors. Mike Mayerchak and several of his astrophotography buddies were there, but when I went over to say hello, I found they were packing up. They had been there the night before and did not think the weather for the night looked promising, but Mike spoke prophetic words when he said things usually clear up after he leaves. Ken and I decided to stay and see how the night

progressed. Within about an hour and a half of sunset, the overcast dissipated and the night cleared up nicely, though the seeing started out quite poor. As the night wore on, the seeing improved, especially to the Northeast.

I brought both my C8 Deluxe and the club's Nexstar 8 with the thought that while I did some piggyback photography on my scope I could keep observing with the Nexstar. Ken had his Nexstar 5 but had forgotten his equatorial wedge, so he had to operate alt-az. Having two identical optical systems in the 8s and two identical drive systems in the Nextstars made for an interesting night of performance comparisons. Ken performed his triple redundant alignment on both Nexstars. With this, the Nexstar 8 found objects probably the best I have ever seen it do. We didn't generally track objects for a long time, so we did not note the long term tracking behavior.

For a period of time, we would point all three scopes at the same objects and make comparisons. Ken was largely interested in seeing the difference between the 5 and 8 inch apertures, namely brighter images and better resolution in the 8. I was interested in seeing the difference between the stock Celestron 1.25" prism diagonal and my Televue 2" Everbright mirror diagonal using the 8s, both with Celestron 40 mm Plossels. The Televue setup provided a noticeable increase in image brightness and contrast. We also made comparisons in various combinations with my Celestron 26 mm Plossel and the club's Televue 25 mm Plossel, just donated the night before by Steve Morris. In one view, a dim galaxy was about a quarter image field away from a bright star (Ken believes it was NGC404, located next to Mirach in Andromeda). In the all Celestron light path, the galaxy was dark gray in a fairly dark background. In the all Televue light path, the background was clearly blacker and the galaxy much more prominent.

The remainder of the night was spent doing some piggyback photography while hunting down a number of NGC galaxies and nebulae and a few globular clusters. Ken and his girls were able to see Mercury at its greatest western elongation for the first time. We turned in about 4:30 A.M.!

All members are encouraged to submit articles on their personal experiences with equipment and software for the benefit of all those members interested in the equipment, accessories and practical observing tips gained only from actual use!

- G. Benecke

March Messier Marathon

Every March there is an opportunity to view more Messier objects in one night than any other time of the year. In theory, it is possible to see them all. To do this, observing goes from evening twilight to morning twilight, with few breaks in between. This is the challenge of the Messier Marathon! On the evening of March 16, the SBAS will be holding a Messier Marathon at Redrock-Inyokern Road. Everyone is invited to join us for this outing. Bring your own telescope or share the views through the club's Nexstar 8 or other club member's instruments.

The level of difficulty of the Marathon can be adapted to fit your level of skill and knowledge of the sky. A computerized scope will maximize your chances of success, while some highly skilled observers will want to star hop from object to object with star charts. I have even read of observers who take on the extreme challenge doing it all from memory. As I did last year, I will be relying heavily on my setting circles.

There is much information available to help plan for a Messier Marathon. Do an internet search with your favorite search engine and you can find numerous sites. One very useful site I found is <http://www.seds.org/messier/xtra/marathon/marathon.html>. There are also a number of books available on the subject. One I can heartily recommend is The Year-Round Messier Marathon Field Guide by Harvard Pennington. I found its diagrams of the view through the finderscope most valuable in locating the dimmest Messier objects last year. The web sites and books provide various schedules for finding the Messier objects.

It is recommended that you practice your skills ahead of time so that you can keep up the pace needed, especially in the early hours of the Marathon. You will want to arrive well before sunset so that you are fully setup and ready to go. Be prepared for very cold weather, the low 30's and even into the 20's is not uncommon that time of the year. Bring something to snack on through the night to keep your energy levels up. Bring a warm sleeping bag, as there is time to catch a few Z's between about 1:00 - 2:30 A.M., if you are on schedule. I hope to see many of you there!

- Greg Benecke

Schedule of Coming Events

1 February Friday 7:30 P.M.	Monthly General Meeting: “Ice Chemistry in the Outer Solar System” Mona Delitsky, JPL planetary scientist, specializes in chemistry of the outer solar system.
2 February Saturday 7:30 P.M.	In-Town Dark Sky Observing at Ridgecrest School 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. Drive with care to avoid steel pillars supporting basketball nets.
4 February Monday 7:30 P.M.	Monthly Planning Meeting See page 3 for location and directions.
8 February Friday Evening	Cornerstone Elementary School - Science Night See page 1 for details!
21 February Thursday Evening	Monetamalaga School – “Star Party” See page 2 for details!
21 (JPL) 22 (PCC) February Thursday 7:00 P.M.	Theodore von Karman Lecture Series – Admission is Free! “Artificial Muscles: Electroactive Polymers as Artificial Muscles” 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.
23 – 24 February Sat. & Sun.	Ecological Consequences of Artificial Night Lighting Conference Co-sponsored by UCLA Institute of the Environment and located on the UCLA Campus. See page 2 for details.
1 March Friday 7:30 P.M.	Monthly General Meeting: Speaker for the evening will be scheduled at a later date.
4 March Monday 7:30 P.M.	Monthly Planning Meeting Location to be scheduled.
9 March Saturday Evening	In-Town Dark Sky Observing at Ridgecrest School Directions are shown in February 2 nd entry above.
16 March Saturday 7:30 P.M.	Out-of-Town Observing – 2nd Annual Messier Marathon! See page 5 for tips in preparing for this challenging event!

South Bay Astronomical Society

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

Guest Speaker: Mona Delitsky (JPL)

“Ice Chemistry in the Outer Solar System”

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South Bay Astronomical Society
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