

# FIRST LIGHT



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

**Monthly General Meeting: Friday, March 1, 7:30 PM**

**Guest Speaker: Mr. Bill Ailor**

**"Micrometeorites, Space Junk and Other Objects"**

## ***Annual Messier Marathon***

On the evening of **March 16**, the SBAS will be holding our 2<sup>nd</sup> **Annual 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. There is an article in the March issue of Astronomy magazine on the marathon with a list of their suggested observing order. I hope to see many of you there!

Directions to the site: From Torrance go north on Interstate 405 until it ends at Interstate 5. Proceed north on Interstate 5 about 4 miles to State Route 14, the Antelope Valley Freeway. Proceed north on Route 14 through Palmdale, Lancaster, and Mojave. At the North end of Mojave, 14 takes a sharp right toward Red Rock Canyon State Park. From this turn proceed about 28 miles North, which will take you through the park and about 2 miles past the North boundary of the park. Start slowing down as you pass the sign for Opal Canyon. In about a half mile turn right on the dirt road marked Inyokern Road. Site A is about 1.25 miles from the turnoff in an open area to the right. We plan to use Site B which is a little further from the turnout, a total of about 1.6 miles from Route 14, also on the right side. In the rare event that both sites are occupied by astronomy unfriendly campers, we have used a third site an additional mile or so down the road, also on the right.

We can't stress enough the need to dress warmly. The desert is very cold at night during this time of year and the temperature can dip well into the 20's. Bring some snacks and drinks for the late night munchies. Most people will arrive before sundown, but if you arrive after dark, please be courteous and do not pull into the observing area with your car headlights glaring in the direction of the scopes.

- **Greg Benecke**

## ***Interesting Observations***

**@Ridgecrest School** – The sky was clear of clouds with a little haze and the temperature got down to 45 degrees. There was no dew to contend with and the seeing conditions were pretty good overall. We had a good turn out with people coming and going all night from about 5:30 PM till 1:00 AM when we left. Our objects of interest for the night were Jupiter, Saturn, the Orion and Eskimo Nebulas, the Beehive, Pleiades and various smaller, more distant star clusters, the Ghost of Jupiter and later on about 12:30, the moon. There was also some moon transit activity on Jupiter that we kept returning to throughout the evening.

Craig Gates brought his new Celestron GPS-11 and Gordon Barbay brought his new Discovery 15" Dobsonian. This gave us an opportunity to compare images between our 5" & 8" scopes to the larger 11" & 15" scopes. We notices that the dark tropical bands on Jupiter have more detail through the larger scopes and dim objects like the Eskimo Nebula appear brighter. We tried different eyepieces on the 11" GPS and found out that the 65 degree to 84 degree field of view eyepieces with up to 20mm of eye relief are much easier to use than the older style plossels

with their 40 degree and 45 degree field of view and sometimes as little as 3mm of eye relief. \$200-\$500 seems like a lot to pay for an eyepiece, especially when there are plenty around for about \$40-\$80, however remember that the eyepiece is 50% of your telescope's optics!

I was experimenting with an Orion Narrowband Ultra Block Nebula Filter, trying it out on different objects with different eyepieces. The seeing conditions seem to play an important part in how well the filter works. In the dry air of the desert it brightens the Orion Nebula by darkening the background. Here in the South Bay with the light pollution bouncing off the damp air, the filter seems to add to the low contrast problem by darkening what little starlight is coming through to the point of making distant open clusters almost invisible. I also found that any stray light that gets between your eye and the eyepiece seems to bounce off the mirror-like coating on the filter and further obscures your vision more than it would without the filter. While there are more technical advances in equipment becoming available to us everyday, learning how, where and when to use them comes only with experience. The limitations are usually not part of the numerous ads we see in the astronomy magazines.

With more people showing up, our observing sessions are getting more interesting and informative. We had both old times and new members, some bringing their families and friends along. There were also students from Dr. Parkers astronomy classes at El Camino College joining us for a little extra credit and actual field experience. I want to thank all those who came out with us and made this one of our best sessions yet! Those in attendance were Greg Benecke, Joe Fierstein, Graig Gates, Ron Rennie, Ken Munson and his three daughters, Elyssa, Bea Collux & Marisa, Charlene Nitkiewiez, Justin Kuraitis, Alex Athas, Francis Koo, Gordon Barbay, Joann Kato, Leslie Craig, Shawn & Lisa Belveal and myself.

- *Jim Madison*

## ***Cornerstone Elementary School Science Night***

The strong of heart that showed up at the Cornerstone Science Night on Feb. 8<sup>th</sup> despite overcast skies were not disappointed. After the first half hour, the sky started breaking up a bit and by 7 PM it was clear horizon to horizon and the breeze quieted down as well. There were at least 5 to 6 members representing the club with 1 or 2 school parents with scopes as well.

Bill Eisele had his recent 13" Odessa dob purchase along which afforded especially great views of Saturn, Dan Trimble had his fully computerized C14 whirring away which was spectacular on everything he pointed to. Greg had both his C8 deluxe and the club's newly refurbished Nexstar 8 (which so far doesn't appear to have dramatically improved in drive performance). We all enjoyed Greg showing us Jupiter in a light pollution filter where the bands stood out bright red against a green blue planet! Jim Madison set up his Meade 8 inch SCT as well as his binoculars on a parallelogram mount. Bob Perens had his new goto Nexstar 80 (says it points and tracks great by the way) and I had my 10" SCT. Brian Hunt and his son Wesley brought their homemade 8 inch Dob. There was another C8 on the blacktop brought by one of the parents, Arch, and Fred Webber was showing kids widefield objects with binoculars.

Tons of appreciative kids and parents wandered buy. We thought the near-by potato launchers might out compete us when the booms started sounding off but it actually just seemed to keep our lines from getting too long. I had made a special request that the canons be at the other end of the field and pointed away from our scopes! Many thanks to all who participated!

- *Steve Lindsey*

## ***Symposium on Telescope Science***

The 21<sup>st</sup> Annual IAPPP (International Amateur-Professional Photoelectric Photometry) Western Wing Symposium will be held May 22-23 at the new, elegant Northwoods Resort in the City of Big Bear Lake. The purpose of the symposium is to provide a forum for astronomical researchers, of all levels, who are interested in providing and/or using astronomical measurements and electronic instruments to plan, discuss and share their work within the astronomical community. For more information call (773) 831-4377 or check the website: <http://www.iappwest.org>

## 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, March 4th at 7:30 PM at the home of Greg Benecke. From Crenshaw Blvd., head West on 182nd St. Shortly after going under the 405 overpass you will see a Fire Station on the right. Turn right into the cul-de-sac just after the Fire Station. From Prairie Ave., head East on 182nd St. Go one block past the second traffic light (Yukon Ave.) and make a left into the cul-de-sac just before the Fire Station. You are making the correct turn if you see a sign saying "Park Place" on the white fence on the Northwest corner next to the Fire Station. Greg's house is the first one on the left side of the cul-de-sac 18161 Patronella Ave., Torrance.

## ***February Planning Meeting***

Our February planning meeting was held at the home of Miriam & Joe Fierstein. In attendance were our President Geg Benecke, Bill Eisele, Alex Athas, Jim Madison, Ronnie & Carlos Lemmi and myself. The main topic of the meeting was "How to become an IRS non-profit organization". Attorney Mel Feldman, a guest at the meeting, discussed various approaches: a) incorporating and filing for exemption or b) not incorporating and filing for exemption. The pros and cons of each approach were discussed as well as the associated costs. One-time state and Federal fees would run several hundred dollars plus attorney's fees (if any). Yearly fees would depend on size of our membership and gross receipts plus the expense (if any) of keeping the necessary records and filing appropriate forms.

Talk about serendipity! This is the first time Ronnie and Carlos have attended a planning meeting, but it turns out that Carlos has gone through this entire procedure when he organized a non-profit scuba diving & photography club. Carlos told us that it is not as difficult as it sounds and can be done without the need for an attorney. He also mentioned that he is building a roll off roof observatory in his back yard and intends to get into astrophotography using CCD's. Welcome Carlos and Ronnie!

- Joe Fierstein

## ***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](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:**

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.

Members send your advertisements to Laura Lucas!

# ***The Sky From Torrance***

When will an object in the sky be easily visible? Will a celestial event, such as an occultation, be above the horizon as seen from Torrance? The table below may be helpful for observers who wish to plan ahead. The altitude is the vertical distance in degrees between the object and the horizon, at the declinations and hour angles shown. The hour angle is the number of (sidereal) hours it will take the object to reach the meridian if it is rising, or how many hours since the object has crossed the meridian if it is setting. Another way of saying this is that the hour angle is the difference between the right ascension of the meridian (the local sidereal time) and the right ascension of the object you want to see.

Although this table was made for the latitude of El Camino College, these altitudes will be accurate to within one degree everywhere in the South Bay. For those who want to know how this was calculated:

$$\text{altitude} = \arcsin\{\sin(\text{latitude})\sin(\text{declination}) + \cos(\text{latitude})\cos(\text{declination})\cos(\text{hour angle})\}.$$

## **ALTITUDES FOR EL CAMINO COLLEGE, TORRANCE**

<b>HOURLY ANGLE</b>														
	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	
<b>DECLINATION</b>														
90°	34°	34°	34°	34°	34°	34°	34°	34°	34°	34°	34°	34°	34°	34°
80°	44°	44°	42°	41°	38°	36°	33°	31°	29°	27°	25°	24°	24°	
70°	54°	53°	50°	46°	42°	37°	32°	27°	22°	19°	16°	14°	14°	
60°	64°	62°	57°	51°	44°	36°	29°	22°	16°	11°	7°	5°	4°	
50°	74°	70°	63°	54°	44°	34°	25°	17°	9°	3°				
40°	84°	77°	65°	54°	43°	32°	21°	11°	2°					
30°	86°	77°	64°	52°	40°	28°	16°	5°						
20°	76°	71°	60°	48°	36°	23°	11°							
10°	66°	62°	54°	42°	30°	18°	6°							
0°	56°	53°	46°	36°	25°	12°	0°							
-10°	46°	44°	38°	29°	18°	7°								
-20°	36°	34°	29°	21°	11°	1°								
-30°	26°	25°	20°	13°	5°									
-40°	16°	15°	11°	5°										
-50°	6°	5°	2°											

**- Steven Morris**

## ***New Webring formed by Las Vegas Astronomical Society***

The Las Vegas Astronomical Society (LVAS) has formed a new webring for membership based societies, associations, or clubs in the Western United States. Clubs from Canada & Mexico are also welcome. The idea started with communications between the LVAS and the Astronomical Society of Nevada (ASN, in Reno). We were wondering why so many people with the same interests didn't use current computer technology to communicate more often with one another at the club level. Ideas passed back and forth about sharing websites, schedules, star parties, locations, newsletters, and welcoming friends from different areas who may be relocating or visiting. There is also the idea of having giant star parties with as many clubs/members as possible in good dark sky locations, for example Central Nevada. New website: <http://l.webring.com/hub?ring=westernobservers&id=1&hub>

# 2002 RTMC ASTRONOMY EXPO REGISTRATION FORM

Name		
Company		
Address		
City	State	Zip

New Address?  Need Vendor Booth?

If Vendor, please provide phone #/email \_\_\_\_\_

### MEALS AND LODGING (dorms or camping)

- Plan 1 - 5 Meals + Lodging
- Plan 2 - 6 Meals + Lodging
- Plan 3 - 7 Meals + Lodging
- Plan 4 - 8 Meals + Lodging

	Cost Before May 1	Cost After May 1	Times # People	Equals Amount
Plan 1 - 5 Meals + Lodging	\$69.00	\$79.00		
Plan 2 - 6 Meals + Lodging	\$75.00	\$85.00		
Plan 3 - 7 Meals + Lodging	\$81.00	\$91.00		
Plan 4 - 8 Meals + Lodging	\$87.00	\$97.00		

### CAMPING ONLY (no meals included)

- Adults (for whole weekend)
- Children 5 to 13 (under 5 free)

	Cost Before May 1	Cost After May 1	Times # People	Equals Amount
Adults (for whole weekend)	\$30.00	\$40.00		
Children 5 to 13 (under 5 free)	\$7.00	\$7.00		

### DAY USE ONLY (no meals)

- Adults (Per Day)
- Children 5 to 13

# Days (3 Days Max.)	Cost Before May 1	Cost After May 1	Times # People	Equals Amount
Adults (Per Day)	\$15.00	\$20.00		
Children 5 to 13	\$7.00	\$7.00		

I need \_\_\_\_\_ extra parking passes.

**TOTAL**

Individual meal tickets can be bought at the dining hall, if the meal plans are not sold out. A snack bar by the telescope field opens Friday at 1:00 PM and stays open until dusk. It opens mid-morning on Saturday and Sunday.

Make checks payable to: **RIVERSIDE TELESCOPE MAKERS CONFERENCE**

Mail to: Riverside Telescope Makers Conference  
c/o Fox & Stephens, CPA's  
8300 Utica Avenue, Suite 105  
Rancho Cucamonga, CA 91730

We reserve the right  
to refuse any  
application received

May 24 - 26, 2002  
Camp Oakes  
Big Bear, CA

## Schedule of Coming Events

<p><b>1 March Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting: “Micrometeorites, Space Junk and Other Objects”</b></p> <p>At the Aerospace Corp., Mr. Bill Ailor manages a group of scientists responsible for tracking “space junk”. Mr. Ailor is also president of the Palos Verdes Land Conservancy which is dedicated to preserving the natural beauty of the Peninsula.</p>
<p><b>4 March Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b></p> <p>See page 3 for location and directions.</p>
<p><b>8 March Friday 7:00 P.M.</b> Show repeats March 15<sup>th</sup>!</p>	<p><b>The Night Sky Show (7:00 PM) &amp; “This Alien Earth” Presentation (8:00 PM)</b></p> <p>“You’ll never take the Earth for granted again after discovering how, through most of its history, it has been a strange “alien world” hostile to life as we know it. Call Santa Monica College’s John Drescher Planetarium for ticket information (310) 434-3000.</p>
<p><b>9 March Saturday 7:30 P.M.</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</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. <b>Drive with care</b> to avoid steel pillars supporting basketball nets.</p>
<p><b>14 (JPL) 15 (PCC) March Thursday / Friday 7:00 P.M.</b></p>	<p><b>Theodore von Karman Lecture Series – Admission is Free!</b></p> <p>“Autonomous Navigation for Urban Robots” 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.</p>
<p><b>16 March Saturday</b></p>	<p><b>Out-of-Town Observing – 2<sup>nd</sup> Annual SBAS Messier Marathon!</b></p> <p>See page 1 for location and directions.</p>
<p><b>5 April Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b></p> <p>Speaker for the evening will be scheduled at a later date.</p>
<p><b>6 April Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b></p> <p>Directions are shown in March 9th entry above.</p>
<p><b>8 April Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b></p> <p>Location to be scheduled.</p>
<p><b>18 (JPL) 19 (PCC) April Thursday / Friday 7:00 P.M.</b></p>	<p><b>Theodore von Karman Lecture Series – Admission is Free!</b></p> <p>“The Changing Ozone Layer” lecture is presented at the JPL von Karman Auditorium (JPL) and the Pasadena City College Forum (PCC). For additional information, call JPL at (818) 354-0112.</p>

# South Bay Astronomical Society

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

*Guest Speaker: Mr. Bill Ailor*

***“Micrometeorites, Space Junk and Other Objects”***

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South Bay Astronomical Society  
c/o Microcosm, Inc.  
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El Segundo, CA 90245-4622