

# FIRST LIGHT



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

**Monthly General Meeting: Friday, July, 8th, 7:30 PM**

**Guest Speaker : Dr. Gary Peterson (SDSU)**

***"Europa – The Other Ocean"***

## ***An Excerpt of "Watching Comet Tempel 1"***

**The Article by Greg Bryant & Alan M. MacRobert**

Even if this were an ordinary year, the periodic comet 9P/Tempel 1 would be an inviting target for medium and large amateur telescopes this spring and summer (in the Northern Hemisphere, that is). The comet returns every 5.5 years. Normally it would be expected to remain as dim as 10th or 11th magnitude for all of this year's apparition — but NASA's Deep Impact probe (the cover story of the June Sky & Telescope) is on target to smash into the comet's icy nucleus on July 4th Universal Time (the night of July 3rd in the time zones of North America). The resulting debris cloud, in addition to providing a better understanding of cometary interiors, may brighten Tempel 1 dramatically. Amateurs worldwide are being urged to join the efforts to study the comet before, during, and after the impact. For details of this campaign, see page 70 of the June issue; at least an 8-inch telescope and a CCD camera are required. But lots more observers will be watching just to see what happens, and to be a part of this historic event. Tempel 1 is well placed right after dark, though it's not at all bright. If your telescope will show typical NGC galaxies, it should probably show this comet.

A diagram of Comet Tempel 1, positioned near bright Jupiter and Spica in the evening sky, is available on the website [www.SkyandTelescope.com](http://www.SkyandTelescope.com). Use the map to locate the comet's exact position on any night from now through July 11th. Click on the map for the full-size version, the one to print and take to the telescope. This map is oriented the way the scene appears over your late-evening horizon, which means that celestial north is to the upper right. Comet symbols on this map are plotted on the evenings of the dates indicated for the time zones of North America. The tails on the symbols point in the direction away from the Sun. Stars are plotted to magnitude 8.5, about as faint as a high-quality 50-mm finderscope will show. You will need to use the very faintest stars plotted in order to pinpoint the comet's exact location. The scale of the map is indicated by the circles at upper right, which are 5° and 1° in diameter. The large one shows the size of a typical good finderscope's field of view. The small circle shows a typical 50x telescopic field of view. Since north is upper right on the map, be sure to match this direction to celestial north correctly in your telescope or finderscope. To do this, nudge your telescope slightly in the direction of Polaris while looking through the eyepiece, and note the edge from which new stars enter the field. This is the field's north edge. Turn the map around so north on the map matches this direction. (Note: if your finderscope has a right-angle bend at the eyepiece, it probably shows you a mirror image, which will not match the map. In this case, you can try to flip the star patterns on the map left-for-right in your head before comparing them with what you see.

**Impact Day** - Tempel 1 (just 3.5° northeast of Spica) will be in the southwestern sky, though getting rather low. The farther southwest you are the better. The comet will be in a fully dark sky 25° above the horizon for Los Angeles and San Francisco. There will be no Moon. Comet specialists predict that the nucleus may brighten to 6th magnitude, though that's really just a guess. How long the brightening will last is also uncertain. But weather permitting, observers all around the globe will get good looks at Tempel 1 within 24 hours.

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## NASA TV Schedule

Watch the NASA Briefings and Deep Impact Mission Coverage on NASA TV! All times shown below in PDT:

Pre-impact Briefing	July 1, 10 AM	(July 1, 1700UTC)
Pre-impact Update	July 3, 11 AM	(July 3, 1800UTC)
NASA TV - Encounter Coverage Begins	July 3, 8:30 PM	(July 4, 0330UTC)
Expected Time of Impact	July 3, 10:52 PM	(July 4, 0552UTC)

**Tempel1 (9P)** App. Mag.: 9.70  
AZ 234deg 56.195' ALT 27deg 28.295'  
RA (JNow) 13h 38.221' Dec (JNow) -9deg 34.086'

Post-impact briefing	July 4, 1 AM	(July 4, 0800UTC)
Post-impact press conference	July 4, 11 AM	(July 4, 1800UTC)

For more details - JPL Website: <http://www.jpl.nasa.gov/> and the Deep Impact Mission page:  
[http://www.nasa.gov/mission\\_pages/deepimpact/main/index.html](http://www.nasa.gov/mission_pages/deepimpact/main/index.html)

## New Pictures with New Scope

Here are the first two reasonable pictures with my new TEC140 refractor. The conditions were far from optimum, but it was a fun trip with the family and Dan Trimble to Joshua Tree a few weeks back. Saturn and Jupiter were pretty spectacular one night through the TEC. <http://home.earthlink.net/~stevelindsey/M101wide.htm>  
<http://home.earthlink.net/~stevelindsey/Leotrio.htm>

- **Steve Lindsey**

## Announcing the Next First Light Editor

It is my great pleasure to inform SBAS Members that Ken Munson has graciously volunteered to act as the next editor of the First Light Newsletter. Ken has made many contributions to past newsletters including his monthly Asteroids & Comets section, which inspires observers searching for these challenging objects. We all wish Ken great success in his new role! I must say a heartfelt "Thank You" to all my friends who contributed time and effort in submitting newsletter articles for everyone's enjoyment for the last four years. You have all been the constant foundation of my success.

- **Laura Lucas**

## SBAS Constitution and Bylaws Issues for Consideration

The following questions / comments regarding the SBAS Constitution and By-Laws have been posed by members for consideration. They are by Article:

**Article VI** - Should the Secretary and Treasurer be combined into a single Secretary/Treasurer position? Should the Member-at-Large be an elected officer?

**Article VII** - Should the Executive Committee be constituted of the Officers and the permanent committee chairmen, or should it just be the officers?

**Article XIV** - Do we need additional permanent committees such as Publicity, and Outreach. The duties of these additional committees would need to be defined.

We will have some discussion of these and any other issues at the July 8th meeting, planning on a vote for ratification of the final document at either the August or September meeting, with the goal of having new officer elections at the November meeting.

- **Greg Benecke**

## 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</b>	John Collins	- - - -	- - - -
<b>Reproduction</b>			
<b>Astronomical League Rep.</b>			
<b>Astronomical League Liaison</b>	Bill Eisele	542-5070	Astronomy131@aol.com
<b>SBAS Website Webmaster</b>	Alex Athas	- - - -	- - - -
<b>First Light Editor</b>	Laura Lucas	798-7281	nihtsky@verizon.net
<b>Observing Committee</b>	Greg Benecke	217-1512	BeneckeRUs@aol.com
	Craig Gates	376-6387	- - -
<b>Executive Committee</b>	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, **July 11th** 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**

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!

## **July - Comets & Asteroids**

### **Comets Visible:**

<b>Name</b>	<b>Magnitude</b>	<b>Constellation</b>
9P/Tempel 1	9.5 – 10.0	Vir-Lib
2004 V2 (Hartley-IRAS)	11.0 – 11.7	Cas-Cam-Dra

### **Comets at Perihelion:**

<b>Date</b>	<b>Identification</b>	<b>Magnitude</b>
July 5	9P/Tempel 1	9.5

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

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

### **Asteroid Occultations:**

<b>Date</b>	<b>LocTm</b>	<b>Durn</b>	<b>Star</b>	<b>Star</b>	<b>Mag</b>	<b>Star</b>	<b>Planet</b>
<b>y m d</b>	<b>h m secs</b>		<b>mag</b>	<b>drop</b>		<b>No.</b>	<b>No. Name</b>
2005 Jul 07	2 40.7	15.1	9.6	2.3	HIP 104753		187 Lamberta
RA = 21h 13m 19.6s Dec = -33o 44' 38.6"							
2005 Aug 06	2 14.6	7.3	10.2	3.1	TYC 6877-00369-1u	435	Ella
RA = 18h 59m 50s Dec = -25° 52' 41.7"							

Star charts for the Asteroid Occultations are available on the SBAS website! Check on the JPL Ephemeris Generator page for coordinates of objects: <http://ssd.jpl.nasa.gov/cgi-bin/eph>

- Ken Munson

## ***Now You See It, Now You Don't: My First Asteroid Occultation Observation***

I set up my Nexstar 11 next to the pool of our hotel overlooking the Kern River in Kernville on **June 14th**. Coincidentally, there were two occultation events this night, both with shadows passing over this part of the earth. The first would occur just before 10 PM, and the other was just before 3 AM. The first shadow was rather narrow, which would pass centered on a line stretching from Bakersfield to Edwards Air Base. So I was not too disappointed that when the moment arrived, I failed to see any change in the low western star. The seeing in the western sky was poor, and I could barely make out the 10th magnitude star. Plus, the duration of the event was no more than 1.4 seconds, so I had to blink quickly. So off I went to dinner, and returning later I entertained a few friends until after midnight.

After dozing off for an hour or so, I debated from my cot whether to get up and try for the second occultation. Finally, I decided to get up and check the clock. I had only twenty minutes to find and center on the 10th magnitude star! This event had a wider shadow which should pass over Kernville, and it would last a bit longer – up to 15 seconds – so I accepted the challenge. I had already marked the star in Starry Night Pro on my Mac, and the telescope was fairly well aligned. So after a simple click of the mouse, the Nexstar was swinging to low southern horizon. The seeing had improved by now, and the field of 10th magnitude stars was fairly stable. Still, which of these faint stars was the right one? The clock was ticking...

Having set a FOV indicator for my two eyepieces in Starry Night, it was fairly easy to compare the scope view to the laptop screen. After slewing the scope just a bit, and comparing with the laptop view several times, I had convinced myself that I was centered on the proper star having recognized the star-field pattern shown on the laptop. I switched to the narrow field eyepiece and centered on the star. I checked the clock on the laptop. Only two minutes left!

I watched the clock until only one minute was left, and went to the eyepiece counting down the last minute as I stared at the star. As my count reached near 60 suddenly the faint star seemed to blink and then disappear. Wow! The nearby stars were unchanged, and there was a blank spot where the star had been. And about five seconds later, the blank space blinked again and suddenly the star appeared. And all was right with our universe again.

It was fun to put my equipment to a challenging use, which employed the capability of commanding the GPS scope directly from the laptop. Without this combination, I would have not been able to witness this event – at least, not without much more time in preparation.

**- Garth Magee**

## ***IDA Fall Meeting in Yellowstone National Park***

The IDA Fall Meeting and Conference will be held at the Yellowstone Lake Facilities on **Sept. 16 - 17th** in the Yellowstone National Park in Wyoming, USA. The Fall meeting will be focusing on wildlife and ecology issues, park lighting, dark sky preserves, lighting zones, and other light at night topics. There will of course be active participation and involvement of the National Park Service and Yellowstone Staff. Come join us at this amazing locale. We hope to see all of you there!

Full Conference Registration - 2 days \$125.00 and single day attendance is \$75.00. Meals are not included. Meeting details and registration are available online at:  
<http://www.darksky.org/meetings/yellowstone/agmfall05.html>.

We are also accepting submissions for oral presentations and various levels of sponsorship. Please check the Web site at [www.darksky.org](http://www.darksky.org) or call the IDA office at 520-293-3192 for more information.

We would also like to encourage you to book your rooms immediately as the IDA room block ends on July 15th. After July 15th it will be very difficult to find a room or campsite anywhere inside the park. To make your reservations call (307) 344-5437.

## Observing Reports!

**@Pacific Crest Hwy.** - On Friday, **May 27th**, I was able to take my telescope up to my observing site along the Pacific Crest highway at 6000 feet ASL. The weather was predicted to be clear for the early evening with clouds after midnight. I figured I'd have a few hours of moderate observing at least. It nearly didn't happen at all! While setting up the scope, my power cable chose that moment to fall apart. The battery plug end popped open and the pieces went flying in different directions. I was able to recover everything but the little spring that keeps the pressure on the fuse. Without it, the cable was useless. Luckily, I happened to have an older battery adapter cable where the cable had broken off the plug. Without any tools beyond a couple of rocks, I was able to cannibalize the one to fix the other. At least it got the scope working again.

This night's observing was primarily devoted to working with my Meade Deep Sky Imager (DSI). It's basically a little webcam with an eyepiece barrel. Turns out it is approximately parfocal with my 12mm eyepiece (and seems to have about the same magnification). To increase the field-of-view, I had to put the 6.3 focal reducer inline. For those not familiar with it, the DSI is essentially a webcam with an eyepiece barrel for fitting into a star diagonal or even prime focus. It comes complete with a software package to do the imaging and even stacks the images for you while it does the exposure. You can even use it with an Alt/Az mounted scope, as the software will compensate for the field rotation. The first thing I discovered is that the software isn't as intuitively obvious to use as I would have liked nor are the instructions as much help as they could have been. While there were copious descriptions of the various buttons to push, there really wasn't a good description of the start-to-finish process of taking the images and then doing the post-processing. Maybe there is and I just haven't found it yet. The newsgroup website [http://groups.yahoo.com/j/group/Deep-Sky\\_Imager](http://groups.yahoo.com/j/group/Deep-Sky_Imager) was much more helpful as people there have put together some basic guidelines on how to use it. After spending a great deal of frustrating time trying to image various objects and getting more noise than anything else, I finally found the button that began to improve things. Gain, Offset and Histograms didn't seem to do much for me. Then I tried the button to increase the time exposure and as each new image came in the picture became brighter, clear and the noise faded away. It was really exciting, after all the earlier frustration, to see a nice image of the Ring Nebula materialize on the laptop screen! One of the really nice features I liked about the DSI was its ability to track and stack the pictures automatically. With the focal reducer in-line, it had a fairly wide FOV. All I had to do was circle a bright star and each image would be aligned and stacked with that star. Since I'd done a careful polar alignment earlier, the scope was tracking pretty good and I ended up not bothering to manually guide it. It seems to have compensated quite well for the small amount of azimuth drift that occurred during the exposure time.

By the time I got my first good picture out of it, I could see clouds beginning to move in from the southeast. So I packed it away and figured I'd do some visual observing in the time remaining. I quickly rearranged things and hooked the laptop to the scope to be able to use the Nexstar Observing List software. I ran through about half the objects in the Cygnus-Lyra-Hercules list. The sky was so good, I was able to easily split the Double-Double of Epsilon Lyra. After strolling through several globulars, planetaries, etc., I checked on the cloud situation. There were clouds all right, and they'd risen higher in the sky. But they weren't the usual pests of observing. These were the star clouds of the southern Milky Way! The marine layer had apparently pulled in and heavily blanketed the entire LA basin. For a period of about half an hour, before the moon rose, the southern Milky Way shown in all its glory. It was an incredible site to see as it rose above the mountains. I alternated between binoculars and telescope. The scope was really good for getting a good view of a small patch of sky but, oh wow!, the binoculars gave such a wide spectacular sweep. Binoculars really bring home the sheer density of stars around the galactic core. Finally, as the moon rose, some high thin clouds did begin to appear but they stayed low on the southeastern horizon. I did some more visual observing and then decided to try a couple of shots with my Nikon D100 camera. Another quick rearrangement and the camera was in place and I did some shots of the Network Nebula (didn't get any nebulosity on that one!), the Veil Nebula (yay, got a faint ghost of nebula) and the Crescent Nebula (another faint ghosting of nebula). Not too bad an effort considering the moon had risen and was washing everything else out. By 3 AM, Mars, Uranus and Neptune had risen of the eastern ridgeline so I finished off with some shots of them. Unfortunately, the atmosphere over the ridge was very turbulent so they were really nothing more than blobs of color. After a very frustrating start and not-so-great weather prediction, it turned out to be a really satisfying night.

- Ken Munson

**@Ridgecrest School - May 28th** I arrived on Saturday night at 7:40PM, even though the weather forecast predicted evening clouds. It was very cold, windy and lonely, with visibility reduced to about a quarter mile and most members attending the RTMC, I did not open the gate and drove off at 8:15PM. The next day, Sunday, I setup in the back yard. The night started off very clear and Jupiter was great at medium power, until 10PM when the sky became very unstable.

- Ray Grace

**@Cottonwood Springs – June 4th** The Clear Sky Clocks website and several others I check for weather conditions all indicated that the Cottonwood Springs area was going to be about the best for observing this weekend so I packed up the scope and one of my kids and we headed out to the desert. When we arrived we found the site already packed with other campers, the majority of whom were also out there for observing. Most were members of the Pomona Valley Amateur Astronomers Club. Craig Gates was the only other member of our club I spotted there. There are two camp site groups A & B, at Cottonwood. With the A group closed for repairs, the B group was unusually crowded. Fortunately, even the folks who were there just to camp and visit the park were very considerate and kept their lights off after dark. The sky was incredibly stable and offered the best seeing conditions in a long time. A light breeze early in the evening made observations a bit difficult but by about 10 PM, it had died down and the night grew steadier and better. The temperature during the night bottomed out at about 70 degrees so it was nice and comfortable all night long.

The first target of the evening was NGC 5139, the Omega Cluster, in Centaurus. This low lying giant globular is usually hard to see in the low southern sky. That night it was spectacular. It filled my 10mm Radian eyepiece completely and thousands of individual stars could be resolved. I switched to using the Meade DSI once again to get more practice at taking pictures with it. After about an hour of frustration at getting nothing much more than noise, I put it aside and went back to visual observing. I spent a large part of the night hunting down galaxies in and around Draco. One of the neatest sights was NGC 5866 which is a bright but small galaxy nestled between two bright stars. It looks like a smaller version of the Sombrero Galaxy.

Another interesting set of targets were NGCs 5985, 5982, and 5981 which were 11th, 12th and 14th magnitude galaxies, all in a line. NGC 5907, the Splinter Galaxy, is a long narrow edge-on galaxy with a faint dust lane bisecting it. It resembles NGC 4565, the big edge-on galaxy in Coma Berenices. Speaking of which, it was really magnificent this night. It literally filled the entire 10mm Radian eyepiece with the dust lane clearly visible against the brighter star clouds behind it. I also ran across another old friend that night. NGC 7023 is a very faint haze of nebulosity surrounding and extending out on one side of a bright star in Cepheus (HIP 103763). I saw this one several years ago when I first started making trips out to the desert around Joshua Tree with my 5 inch scope and was never able to remember which NGC it was. I can see now that you have to really have great seeing conditions to notice it as the nebulosity is really faint and the star is somewhat variable.

By then it was close to 2 AM so I decided to try some more imaging with the DSI. After a little more frustration with settings adjustments, I started to get some recognizable images of the Trifid Nebula and the Swan Nebula. The Swan Nebula turned out the best even though I had only managed to get a total of 20 images before the 'guide star' drifted out of the field-of-view. I find it very difficult to focus the DSI as, in its initial settings, the screen is mostly noise and it's very hard to see any stars to focus on. Amazingly, though, the longer exposures I took the less noise each image seemed to have. I still have a lot of figuring out to do with this thing.

After a all-too-brief nap, I packed up at sunrise to begin the journey home. Since my daughter, Stephanie, was with me, we decided to take a short side trip to the Cottonwood Spring. Now I can see why they call it Cottonwood Spring Campground! Deep down in an arroyo, a trickle of water seeps out of the ground and gives life to a stand of cottonwoods and fan palms. It's a really beautiful location. Stephanie was thrilled at all the wildlife we saw there getting some early morning drinks, which all ran off on seeing us coming!

**- Ken Munson**

## ***A Little Camp Humor***

The Lone Ranger and Tonto went camping in the desert. After they got their tent all set up, both men fell sound asleep. Some hours later, Tonto wakes the Lone Ranger and says, "Kemo Sabe, look towards sky, what you see?"

The Lone Ranger replies, "I see millions of stars." "What that tell you?" asked Tonto.

The Lone Ranger ponders for a minute then says, "Astronomically speaking, it tells me there are millions of galaxies and potentially billions of planets. Astrologically, it tells me that Saturn is in Leo. Time wise, it appears to be approximately a quarter past three in the morning. Theologically, it's evident the Lord is all-powerful and we are small and insignificant. Meteorologically, it seems we will have a beautiful day tomorrow. What's it tell you, Tonto?"

Tonto is silent for a moment, and then says, "Kemo Sabe, you dumber than buffalo sh\_\_\_. Somebody stole tent."

# RTMC 2005

I arrived at RTMC in the early afternoon on Friday and soon found where Joe and Miriam Fierstein had set up the club's Nexstar 8. The location had a clear view to the South and East and only moderately obstructed views to the North and West. Wild flowers were in bloom all over and the grass had grown taller than usual with our wet winter. Steve Lindsey and his son Ricky joined us a bit later that afternoon. Barry and Sheila Titlebaum were at a nearby site. I spent some time looking through the vendor area but didn't find anything I felt I needed. Meade was there with their new RCX400 scopes and Celestron had all their new offerings in the Nexstar line. I got my first look at their C20 Dall-Kirkham Cassegrain. It's quite a scope! The seeing Friday night was reasonably good. I started by catching Saturn before it went down behind some trees. Jupiter looked pretty good and would later display the Red Spot. The Moon came up after midnight and put an end to the viewing, which allowed for a decent night's sleep.

Saturday, I attended a couple of talks in imaging. There is certainly a major shift away from film astrophotography to the use of the digital SLR. I was really impressed with some of the work being done with these and for those folks with the budget, the images being made by amateurs with the top of the line dedicated CCD cameras will knock your socks off. One talk showed some CCD results compared with Hubble photos that were truly impressive. During the day I ran into a number of other SBAS members. As night fell Saturday, a band of clouds moved in prevented any viewing for a few hours. Later it did clear up and allowed for some viewing before the sun came up.

Sunday started with the swap meet but nothing caught my eye. Later in the morning John Dobson, who is nearly 90, gave a talk in the new outdoor amphitheater. The talk was on his view of cosmology that is the recycling theory where matter that disappears from the visible universe is spontaneously recycled and appears back in the visible universe. The sky was clear Sunday night but the seeing was not very good. I spent some time with filters looking at various diffuse nebula including the North American and Veil nebulas. These were easy targets for my 15 inch Dob but we also tried the OIII filter on Steve's new Apo, which made them quite clear in the smaller aperture. Unfortunately the seeing was so bad that we gave up before the Moon came up. Another RTMC was over.

I hope to go next year. If you are considering next year be aware that it will be on a New Moon weekend and they expect a very large attendance, so register early!

- Greg Benecke



**September 30-October 2, 2005**

Each year the same folks who bring you the RTMC Astronomy Expo at Big Bear in May, also produce an early autumn event called "Nightfall" in Borrego Springs, CA. Nightfall is unique because it takes place at a resort that cooperates in creating a dark, red-light only environment on its sprawling property. This is a wonderful opportunity to bring family members and friends to a star party with amenities such as pools, high-speed Internet access, and air conditioned rooms, to say nothing of dark, steady skies.

This year's event will feature Friday and Saturday workshops hosted by ETX guru Mike Weasner and Oceanside Telescope. Guest speakers include Dr. Clay Sherrod, astronomer and author of *A Complete Manual of Amateur Astronomy: Tools and Techniques for Astronomical Observations*. On Saturday afternoon there is also a big potluck supper. The headquarters hotel for Nightfall is the Palm Canyon Resort (800-242-0044); you can choose between a hotel room or fully equipped RV slots. This event is often sold out by June so make your reservation early. If the rooms at the Palm Canyon Resort are completely booked, you can find lodging alternatives at [www.borregosprings.org](http://www.borregosprings.org). Attendees who stay at other hotels are still welcome to observe from the grounds at the Palm Canyon Resort. For more information on Nightfall check out [www.rtmcastronomyexpo.org/nightfall.htm](http://www.rtmcastronomyexpo.org/nightfall.htm).

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

<p><b>2 July Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b> – Weather Permitting: Please contact Greg Benecke to confirm that the gate will be opened!</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>8 July Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b></p> <p>Dr. Gary Peterson of San Diego State University returns as our speaker with the topic “Europa – The Other Ocean”. A brief discussion on questions and comments related to the current draft Constitution and By-Laws will be held – see questions submitted for resolution on page 2!</p>
<p><b>9 July Saturday Evening</b></p>	<p><b>Out-of-Town Dark Sky Observing</b> – New Moon July 6th</p> <p>Contact Greg Benecke to confirm the site location.</p>
<p><b>11 July Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b></p> <p>Refer to page 3 for directions. The Planning Committee and any interested members will meet to establish the Nominating Committee to select officer candidates for the next annual meeting in November when voting will take place.</p>
<p><b>21 JPL 22 PCC July 7:00 P.M.</b></p>	<p><b>Von Kármán Auditorium (Thursday) &amp; Vosloh Forum at Pasadena City College (Friday)</b></p> <p>“Comets - Time Capsules of Our Solar System's Past” presented by Dr. Richard Grammier, JPL, Deep Impact Project Manager. Comets are the frozen time capsules that hold the clues to the origins of our solar system. These dirty ice balls, left over from the formation of our solar system, have remained relatively unchanged for the last 4.6 billion years. Admission is free. For more information, call (818) 354-0112.</p>
<p><b>30 July Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b> – Weather Permitting.</p> <p>Refer to July 2nd entry for directions to the site &amp; instructions on weather conditions.</p>
<p><b>5 August Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b></p> <p>The speaker for the evening will be SBAS' Nora DeMuth presenting “The Summer of Wonder: A student's perspective on life at JPL”.</p>
<p><b>6 August Saturday Evening</b></p>	<p><b>Out-of-Town Dark Sky Observing</b> – New Moon August 4th</p> <p>Please contact Greg Benecke to confirm the location.</p>
<p><b>8 August 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 next Newsletter.</p>
<p><b>27 August Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School</b> – Weather Permitting.</p> <p>Refer to July 30th entry for directions to the site &amp; instructions on weather conditions.</p>

# South Bay Astronomical Society

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*General Meeting at El Camino College Planetarium:  
Friday, July 8th at 7:30 P.M.*

*Guest Speaker: Dr. Gary Peterson (SDSU)*

*“Europa – The Other Ocean”*

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South Bay Astronomical Society  
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