

# ***FIRST LIGHT***



***Journal of the South Bay Astronomical Society - April 2003***  
on line at [www.geocities.com/sbas\\_elcamino](http://www.geocities.com/sbas_elcamino)

**Monthly General Meeting: Friday, April 4th, 7:30 PM**

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

**"Tips & Tricks In Using a GoTo Telescope"**

## ***SBAS Holds a Joint Meeting with OASIS***

On **April 4<sup>th</sup>**, the SBAS meeting will be held in conjunction with OASIS, the Organization for the Advancement of Space industrialization and Settlement, which is the Greater Los Angeles chapter of the National Space Society. The organization has been active for the past twenty-five years in promoting space development through public lectures on space topics, tours of local space facilities, and educating political and community leaders on the benefits of space exploration and settlement. We are looking forward to some interesting discussions.

## ***National Dark-Sky Week April 1-8, 2003***

National Dark-Sky Week has the endorsement of the American Astronomical Society, the Astronomical League, Sky & Telescope magazine, and the International Dark Sky Association (IDA). These groups encourage all Americans to attend public star parties, visit their local planetarium or public observatory, or simply go outside to a safe, dark location to enjoy the wonder of the night sky. Learning the constellations, observing planets, wondering about the stars and the Milky Way are one of the most basic of human experiences and should be enjoyed by all.

Please help spread the word and arrange safe, educational events in conjunction with National Dark-Sky Week. Our member, Dr. Steve Morris has become a life member of the IDA. Congratulations Steve! Now if we could only get some more members to join this worthwhile organization, maybe we wouldn't have to drive 200 miles for dark skies! [www.nationaldarkskyweek.htmlplanet.com](http://www.nationaldarkskyweek.htmlplanet.com) or visit IDA's website [www.darksky.org](http://www.darksky.org)

## ***Mt. Palomar Observatory Tour***

We are scheduled for **April 19, 2003**, at **2:00 P.M.** They ask that our group be fully assembled by 2:00 so the tour can start promptly. I suggest people plan on arriving no later than 1:30 P.M. so they can check in and get their nametag. The Observatory domes are not heated; they are kept at nighttime temperature. Dress appropriately for the nighttime temperatures of the mountains at 5,500 feet. We can accommodate up to 30 people for this tour. Sign up at the April meeting or send Greg Benecke an E-Mail at [beneckerus@aol.com](mailto:beneckerus@aol.com). The Observatory recommends that we should allow 3 hours for the drive from the Los Angeles area. Carpooling is encouraged.

Driving directions: Take the 91 Freeway East to the 15 South past Temecula. Coming out of the South of Temecula take State Route 79 East about a mile and then take S16 South through Pala to State Route 76 East. Take 76 East past Rincon to S6 North. S6 ends at the Observatory entrance. Park in the Visitor Parking Lot by the museum. See map on page 8.

## ***A Gorgeous Night at Ridgecrest School***



Saturday, March 22nd was an especially clear night at Ridgecrest, the likes of which we have not seen in a long while. Saturn and Jupiter put on quite a show for the six SBASers and guests who showed up for our in town observing session. Jupiter's moons were in a perfectly straight line and for a while we thought it had acquired a 5th moon, but it turned out to be a star which had joined the procession. Those who enjoyed the show were Ken Munson with his three lovely daughters and his brand new Celestron 11 GoTo SCT with all the bells and whistles, Greg Gates and Al Fader also had 11 inch SCTs; Greg Benecke and Ed Sabin scanned the sky with 8 in. SCTs. With the help of guest Craig Brown's sharp eyes we were able to view Globular clusters M41 and M35, and Galaxies M65, M66 and M105 in Leo using my 10 in. Dob. The boys with the computerized scopes were finding all kinds of exotic things. Meanwhile Ed Sabin was patiently perfecting his polar alignment and checking the tracking accuracy of his 'scope in preparation for some astrophotography. Greg Benecke, who joined us after attending a Red Rock State Park planning meeting in California City, tried his hand at star hopping. He and Craig Gates want to make the Messier Marathon next weekend more of a challenge – no computers or setting circles for them. Good luck guys!

- **Joe Fierstein**

## ***Mt. Wilson Observatory Trip Reminder***

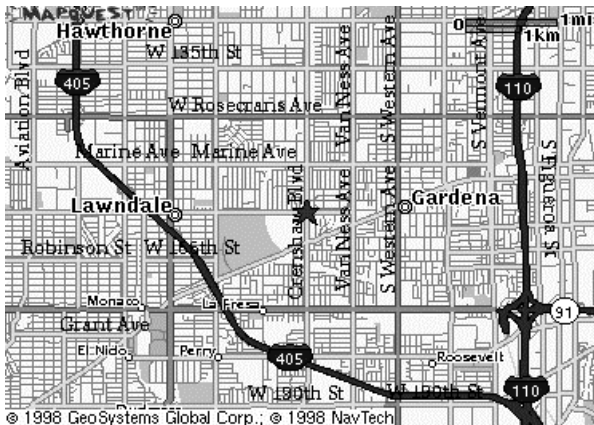
Our Mt. Wilson Observatory Trip to use the 60inch telescope is coming up! All 25 attendees have paid reservations for Saturday, **May 3<sup>rd</sup>**. If anyone needs to cancel, please contact me as soon as possible as we may be able to fill vacant spots by calling people on the "waiting list". We will meet at the gate to be escorted to the parking area and the observatory escort must lead cars out through the gate, in groups, when leaving periodically. Wear good shoes for using the stepladder and dress warmly (gloves & a warm hat are advisable). Bring a lounge chair or sleeping bag to relax in, and food, snacks & water to last while you're there. You can bring your camera if you want to take handheld photos and don't forget your **red** flashlight!

- **Greg Benecke**

## Your SBAS Committee

<b>President</b>	Greg Benecke	217-1512	BeneckeRUs@aol.com
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	Mike Mayerchak	831-9188	Mmayerchak@aol.com

## Monthly General Meetings



We normally meet on the first Friday of each month at 7:30 p.m. in the Planetarium at El Camino College. If the first Friday is on or close to a holiday, we usually defer the meeting until the second Friday of the month.

The Planetarium is on the south side of Manhattan Beach Blvd., one block west of Crenshaw Blvd. (near the center of the map at left). Click on the map to get a display that can be zoomed out for a regional view. The zoom display appears in a separate browser window, which can be closed to return to this page.

The domed roof of the planetarium is visible from the street. There is on-street parking, and we can often use campus parking: check inside to see if you need a FREE parking permit for your car. 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, April 7<sup>th</sup> 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. Discussions will include a final draft of our Mt. Wilson Observatory Trip "Target List"!

## ***SBAS Membership Benefits***

**“Welcome”** to our newest SBAS Members: Joe Locascio and Joel Angeletti.

Contact John Collins for magazine subscriptions at club rates: “Sky & Telescope” \$29.95 and “Astronomy” \$29.00! Make your check payable to SBAS and mail the payment and your subscription / renewal form directly to SBAS, c/o Microcosm, Inc. at 401 Coral Circle, El Segundo, CA 90245-4622.

Part of your SBAS membership dues goes toward membership in the Astronomical League. All paid members should be receiving the “Reflector”, the league's newsletter, four times a year. As a member organization, we can participate in a number of award programs they offer. These are based on completing various observing challenges. Check out the Astronomical League website at [www.astroleague.org](http://www.astroleague.org)

## ***NexStar 8 Available to SBAS Members***

All members in good standing (with at least six months of continuous membership) can borrow the club's Nexstar8 for up to 7 days. The fee of \$5 for a weekend, or \$10 for an entire week, is nonrefundable and will be added to the club's Accessories Fund “Wish List” for future purchases. A fully refundable deposit of \$200 cash or check is required. Loss or damage is the responsibility of the borrower. A copy of the complete South Bay Astronomical Society Nexstar 8 Borrowing Rules and Agreement is available upon request. The **Accessories Fund “Wish List”** – Member contributions of any amount or donations will be appreciated, as will any suggestions for new purchases!

## ***Red Rock Canyon State Park Plan Update***

On March 22, 2003, about fifty citizens gathered at the California City Middle School northeast of Mojave for the third in the series of planning meetings for the Red Rock Canyon State Park General Plan Amendment - Last Chance Canyon Addition. As you know from previous reports, the Last Chance Canyon Addition includes the Redrock-Inyokern Road site the SBAS uses for dark sky observing. The State Park Planners presented a new Draft Alternative Plan Map which has the site designated as a Primitive Zone.

Primitive Zone designation is preferable to the two other designations, Focused Use Zone or Sensitive Resource Zone, which would either allow development of established campsites or ban vehicular access completely, respectively. The Primitive Zone would allow access in designated primitive camping areas, which our site would likely be designated. Evidence that our participation at these meetings has had a positive effect is that Astronomy is now included in the Management Zone Matrix as a distinct Land Use line item.

For both Focused Use and Primitive Zones, astronomy is "Allowed with equipment in designated parking and camping areas." In Sensitive Resource Zones astronomy is allowed as "No-impact viewing, limited to handheld equipment." Maps, reports, and meeting notices can be found at the following URL:

[http://www.parks.ca.gov/default.asp?page\\_id=22367](http://www.parks.ca.gov/default.asp?page_id=22367)

Comments supporting astronomy at Red Rock State Park and other aspects of the ongoing planning can be sent to:

California Department of Parks and Recreation  
Southern Service Center  
8885 Rio San Diego Drive  
Suite 270  
San Diego, CA 92108

- **Greg Benecke**

# March 1<sup>st</sup> Dark Sky Trip Observing Report

Steve Lindsey was all set up with an impressive windbreak when Mike Rivas and I arrived at the Redrock-Inyokern Road site shortly after sunset. Steve was clearly serious about not letting any wind keep him from doing photography through his 10" Meade SCT. We knew the early evening would be cloudy but set out on the prediction that conditions would be reasonable later that night. As we waited for the sky to clear Craig Gates and a friend arrived. The scopes, Mike's 12" LX200 GPS, Craig's Nexstar 11 GPS, Steve's Meade, and my C8 Deluxe were all set up but we were still waiting for the sky to clear. Shawn Belveal arrived with his LX90 after having some trouble finding the site in the dark.

Finally the sky started to clear, polar and two star alignments were performed and observing began. The seeing started out poor, but through the night both it and the clarity improved considerably. Conditions improved to where Steve started making exposures. We had to continue to move around the sky to find where the best seeing conditions were, as they were dynamic. By about 2:30 A.M., the wind picked up enough to make observing difficult. Everyone but Steve turned in to catch some shuteye. About 4:30 I got up to find Steve struggling to keep his windbreak intact. We made repairs and Steve continued his photography. After a few more Z's, I got up after sunrise to find that Mike's and Craig's scopes had been left in standby mode to retain alignment and they were observing Mars and Venus in the daylight!

- **Greg Benecke**

## A New Shot of M101

Here is my latest astrophoto of M101 from the March 1st Inyokern Rd. outing. M101 is a very wide and fairly bright spiral galaxy found towards the end of the Big Dipper handle. At approximately 27 million light years away and 200,000 light years across, somewhat larger than our Milky Way, it's spiral arms are quite extensive and faint however, and difficult to capture well on film. Enjoy!

<http://home.earthlink.net/%7estevelindsey/M101.html>

Photo info.: Meade 10" SCT @ f11 on G11 mount with ST-4 on GEG guiding, using Nikon F with Provia 400F film and a 2x90 minute exposure, Minolta Dimage Scan Dual II, registered and stacked in Registar, levels and curves adjusted in Photoshop. It was really tough to process, with moderate to poor seeing and lots of wind, the exposure time didn't get as much detail as I'd have liked.

*Editor's Note:* I don't know anything about astrophotography, and Steve was very kind to respond to my questions about film choice.

**Question:** Why 400 ASA instead of 800? Would 800 shorten exposure time?

**Answer:** In theory, yes, in practice, no. It turns out that two things work against very high speed films for long exposure astrophotos. First the higher speed films are quite grainy and subtle details in astrophotos along with the high contrast yet gradual gradients really suffer. Second, the real need for soaking up these faint objects well is low reciprocity failure times or in other words - the ability of the film to keep taking in and recording the faint light over long periods of time without quitting.

This is not a function of ASA or ISO ratings which only apply to bright daytime or well lighted/flashed night-time photography. The only reason astrophotographers use the various films they do are the result of careful testing by the amateur astrophotography community on how the emulsions respond under typical conditions for faint long term exposures in the desired color ranges. All this is completely independent of all the manufacturers advertising for the films of interest.

Higher speed films are often used however with good results for shorter exposure aurora, meteor showers and brighter comets.

- **Steve Lindsey**

*Additional Note:* Dan Trimble has a new website at <http://home.earthlink.net/~dtrim/Home%20Page1.htm>

# ***Tinkerings With My New Nexstar 11***

After nearly three years of saving, I finally managed to come up with enough money to buy the telescope setup of my dreams. Having been impressed with the performance of my Nexstar 5, I decided to go with the Nexstar 11 as my new telescope. I was lucky enough to get the \$99 accessory kit along with the scope, although the promotion had actually ended a month before. The kit came with several eyepieces, a Barlow doubler and a set of filters. I added an Astronomik OIII filter to the set, along with a 17 amp-hour battery, the Celestron Deluxe Wedge and an observing chair. Surprisingly, the toughest thing to get turned out to be the carrying case.

As usual, the first week after getting the scope home, the sky was filled with clouds. When it finally cleared, I set up in the back yard and was astounded at the amazing amount of detail I could finally see on Jupiter and Saturn. When mounted in AltAz mode, the scope has an annoying 'bump' in elevation control. The image will suddenly bump up and then back down. Once I started using it in equatorial mode, this little problem went away. Apparently, there is a fix for it which involves getting a new motor control board. The filters in the accessory kit are very nice to have. I've found the #12 Deep Yellow and the #21 Orange have been the best for seeing the Great Red Spot. The #80 Blue makes a nice crisp image with the brighter cloud bands muted. With that one, I've seen some very bright white swirls in the lighter bands of clouds. The Astronomik OIII filter has been phenomenal for bringing out details in the nebulas. The Orion Nebula is really fantastic, even in the city. For the first time, when viewing the Pleiades, I can finally see wisps of the nebulosity associated with this cluster.

After comparing images captured by other users, I began to suspect that I wasn't getting all the performance I could. The night before our in-town session, I set up in the backyard and decided to try tweaking the collimation. The weather conditions were excellent and after having cooled down for six hours, I went through the collimation exercise. Turned out to be easier than I thought. A couple of tweaks of the collimation screws, and I had a nice dot among concentric rings. After that, more detail than ever became visible on Jupiter. Thanks to the observing chair, it's now so comfortable, I can easily spend an entire evening mesmerized by Jupiter! During our in-town session, I managed to tear myself away from Jupiter long enough to check out M3, M5, M104 and M13. Globulars and galaxies always looked like fuzzy gray objects before. Now, I can distinguish thousands of stars in the globulars. For the first time, I can see the galaxy shape of M104! Breath-taking, awe-inspiring, there aren't enough adjectives to describe the view!

Equatorial mode operation turns out to be easy with this scope, too. The instructions from Celestron were a little less than clear on how to set it up, but with help from fellow club members and online Nexstar club members, I finally have it right. The N11 has a very nice automated routine for polar alignment. Once you do an initial dummy alignment, you select a utility item called 'Wedge Align'. It slews the scope to 90 degrees declination and then waits while you adjust the wedge to get the crosshairs of the spotter scope on the celestial pole. Once that's done, you shoot a couple of alignment stars and it's ready to go. I've checked the alignment with the drift method and apparently it's been pretty good.

One drawback to having a larger scope is that the field-of-view is smaller. The Nexstar 5 had a 1 degree FOV while the N11, with the 40mm eyepiece, is down to about 40'. To increase the FOV, I also got a 6.3 focal reducer/corrector. With that in place, I can see almost the entire Pleiades cluster. I haven't checked it in the double cluster since that isn't visible from my back yard but I suspect I'll be able to get both of them in the FOV again. I can't wait to get out to dark-sky country again!

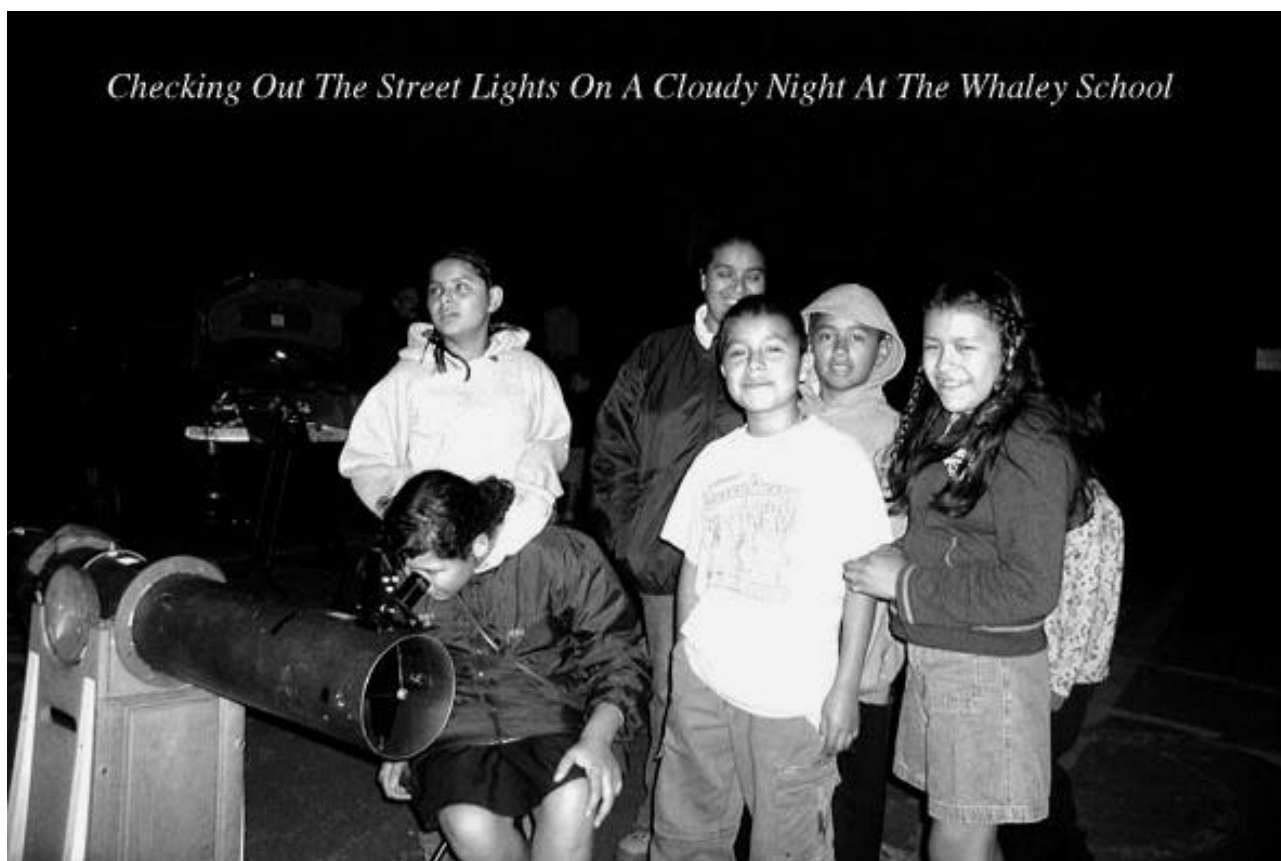
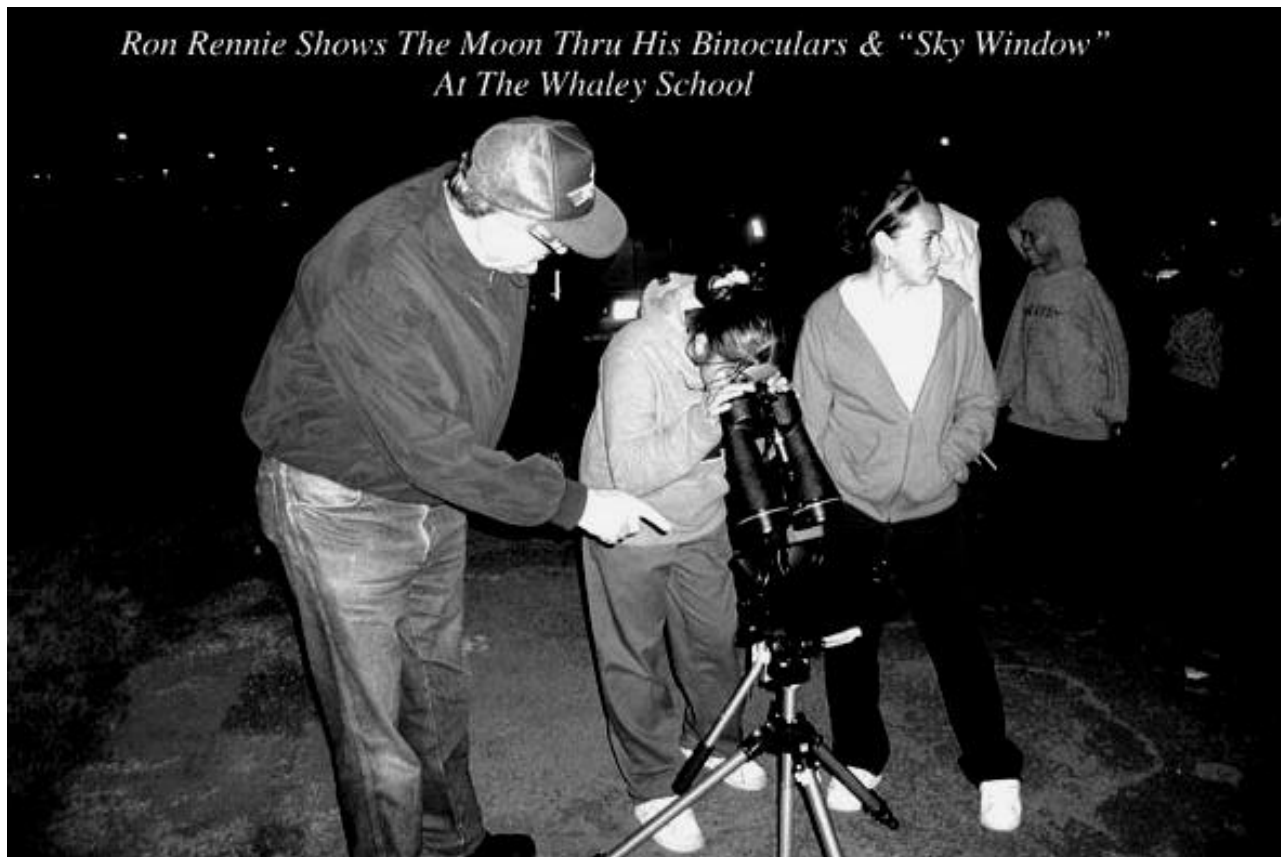
**- Ken Munson**

## ***Space Infrared Telescope Facility Arrives at KSC***

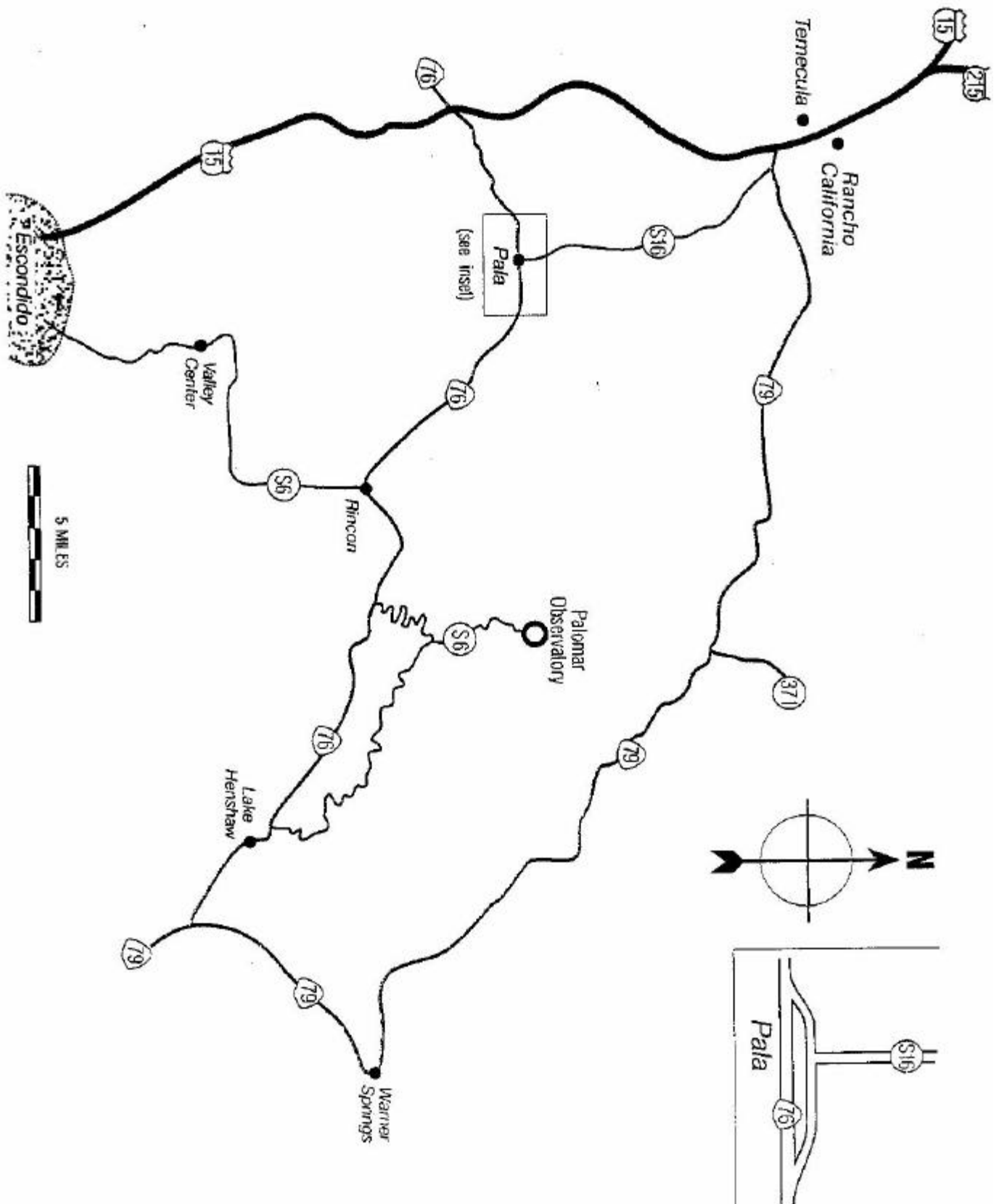
The Space Infrared Telescope Facility has arrived at the Kennedy Space Center to begin final preparations for its launch aboard a Boeing Delta II rocket. The observatory was shipped to Florida from the Lockheed Martin plant in Sunnyvale, Calif. The Space Infrared Telescope Facility marks the finale of NASA's Great Observatories program, which includes the Hubble Space Telescope, the Chandra X-ray Observatory and the Compton Gamma Ray Observatory. Its unprecedented infrared sensitivity will allow astronomers to capture what they affectionately call "the Old, the Cold, and the Dirty," referring to the coldest, oldest, and most dust-obscured objects and processes in the universe. The mission is a cornerstone of NASA's Origins Program, which seeks to answer the questions, "Where did we come from? Are we alone?" Launch is scheduled to occur on Tuesday, April 15, 2003, at 4:34:07 a.m. EDT. For additional information about the Space Infrared Telescope Facility <http://sirtf.caltech.edu/>

**- NASA News**

## ***Pictures from the Whaley School Star Party***



# Mt. Palomar Observatory Map



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

<p><b>4 April Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b> Our speaker, Mr. Mike Weasner, an SBAS member will discuss "Tips &amp; Tricks In Using a GoTo Telescope". If weather permits, we will enjoy some observing time after the lecture.</p>
<p><b>7 April Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b> See page 3 for location and directions.</p>
<p><b>17 (JPL) 18 (PCC) April 7:00 P.M.</b></p>	<p><b>Von Karman Auditorium Lecture Series – FREE</b> "Mars Global Surveyor Across the Centuries" is presented by Dr. Terry Martin, JPL research scientist, Earth and planetary atmospheres: How the Mars Global Surveyor mission contributes to future Mars exploration. For more information call: (818) 354-0112</p>
<p><b>19 April Saturday 2:00 P.M.</b></p>	<p><b>Mt. Palomar Observatory Tour</b> Up to 30 SBAS members can attend the educational tour at the Mt. Palomar Observatory. Sign up via email to Greg Benecke or at the April General Meeting. The tour of the Observatory begins promptly at 2 PM.</p>
<p><b>26 April Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting:</b> If the weather conditions are marginal, contact Greg Benecke to confirm that he will be opening the gate!  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>2 May Friday 7:30 P.M.</b></p>	<p><b>Monthly General Meeting:</b> Our speaker for the evening is Mr. John Hoot, a JPL Ambassador, and his topic will be "Amateur Research in Astronomy".</p>
<p><b>3 May Saturday Evening</b></p>	<p><b>Mt. Wilson Observatory Trip – New Moon May 1<sup>st</sup></b> Our long awaited trip to the Mt. Wilson Observatory and observing with the 60" Telescope! Contact Greg Benecke if you have any questions or changes in attendance to report.</p>
<p><b>5 May Monday 7:30 P.M.</b></p>	<p><b>Monthly Planning Meeting</b> Location to be scheduled.</p>
<p><b>8 (JPL) 9 (PCC) May 7:00 P.M.</b></p>	<p><b>Von Karman Auditorium Lecture Series – FREE</b> "Challenges in Mobility and Robotics for In Situ Science". Brian Wilcox, manager, Solar System Exploration Mobility Technology Program: The challenges of exploring extreme planetary surfaces with mobile robots. For more information call: (818) 354-0112</p>
<p><b>24 May Saturday Evening</b></p>	<p><b>In-Town Dark Sky Observing at Ridgecrest School – Weather Permitting.</b> Refer to April 26th entry for directions to the site &amp; instructions on weather conditions.</p>
<p><b>31 May Saturday Evening</b></p>	<p><b>Out-of-Town Dark Sky Observing – New Moon</b> Contact Greg Benecke to arrange site location.</p>

# South Bay Astronomical Society

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

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

*“Tips & Tricks In Using a GoTo Telescope”*

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