

FIRST LIGHT



Journal of the South Bay Astronomical Society – January 2008
on line at www.geocities.com/sbas_elcamino

Monthly General Meeting: Friday, January 4th, 7:30 PM

Guest Speaker: Steve Edberg, JPL

“Solar Eclipse Observing: Explanation – Advice Anecdotes”

The December 7 Meeting

The meeting began at 7:40 with President Ken Rossi welcoming newcomer Wayne Bonner to the SBAS. Jacques Linder reported on some of his recent observations, including some excellent views of the planet Mars as it nears opposition. Greg Benecke described the recent Ridgecrest public observing session, and Steven Morris reported that a Delta rocket launch scheduled to lift off from Vandenberg Air Force Base in the next few days should be visible from Torrance, with an up-to-the-minute countdown available on the Internet.

Craig Gates reported seeing a fuel dump from a geosynchronous satellite, appearing as a naked-eye ‘nebula’ in Orion as viewed from Craig’s dark-sky observing site in Cottonwood Springs. Ray Grace showed high-quality pictures of this fuel dump and Comet Holmes, plugging his laptop computer into the planetarium’s projection system. Arnie Stodolsky, our Treasurer, reported that the SBAS remains solvent, with money slowly building in the Observatory Fund and a modest reserve available for emergencies.

After a ten-minute break, Bob Alborzian spoke on “The History of the Sidewalk Astronomers”. Bob has been an associate of John Dobson (of Dobsonian-telescope fame) since 1966, when Mr. Dobson was teaching at Berkeley. It was John Dobson who founded the Sidewalk Astronomers in 1968, whose mission is to teach anyone, particularly young people, about the joys of astronomy and science. Specifically, John and the other 700 members of this nonprofit organization instruct all who are interested on how to build telescopes, and encourage them to use telescopes for enjoyment and teaching. If you are interested in joining the group, which charges a nominal \$15 annual fee, you may contact them at www.sidewalkastronomers.us. Remarkably, John Dobson is still going strong at the age of 92.

The lecture was followed by questions from the 35 people in attendance, prompting answers that included a discussion of Dobson’s unconventional views on cosmology, and an impassioned outline of the speaker’s own philosophical views. President Rossi thanked the speaker, and the meeting ended at 9:14.

- Dr. Steven Morris



Ultraviolet Surprise

by Patrick L. Barry and Tony Phillips

How would you like to visit a universe full of exotic stars and weird galaxies the likes of which astronomers on Earth have never seen before?

Now you can. Just point your web browser to galex.stsci.edu and start exploring.

That's the address of the Galaxy Evolution Explorer image archive, a survey of the whole sky at ultraviolet wavelengths that can't be seen from the ground. Earth's atmosphere blocks far-ultraviolet light, so the only way to see the ultraviolet sky is by using a space telescope such as NASA's Galaxy Evolution Explorer.

About 65% of the images from the all-sky survey haven't been closely examined by astronomers yet, so there are plenty of surprises waiting to be uncovered.

"The Galaxy Evolution Explorer produces so much data that, beyond basic quality control, we just don't have time to look at it all," says Mark Seibert, an astronomy postdoc at the Observatories of the Carnegie Institution of Washington in Pasadena, California.

This fresh view of the sky has already revealed striking and unexpected features of familiar celestial objects. Mira is a good example. Occasionally visible to the naked eye, Mira is a pulsating star monitored carefully by astronomers for more than 400 years. Yet until Galaxy Evolution Explorer recently examined Mira, no one would have guessed its secret: Mira possesses a comet-like tail 13 light-years long.



Astronomers looking at new ultraviolet images from the Galaxy Evolution Explorer spacecraft were surprised to discover a 13-light-year long tail on Mira, a star that has been extensively studied for 400 years.

"Mira shows us that even well-observed stars can surprise us if we look at them in a different way and at different frequencies," Seibert says.

Another example: In April, scientists announced that galaxies such as NGC 1512 have giant ultraviolet spiral arms extending three times farther out into space than the arms that can be seen by visible-light telescopes. It would be like looking at your pet dog through an ultraviolet telescope and discovering his ears are really three times longer than you thought!

The images from the ultraviolet space telescope are ideal for hunting new phenomena. The telescope's small, 20-inch primary mirror (not much bigger than a typical backyard telescope) offers a wide field of view. Each image covers 1.2 degrees of sky—lots of territory for the unexpected.

If someone combing the archives does find something of interest, Seibert advises that she or he should first search astronomy journals to see whether the phenomenon has been observed before. If it hasn't, email a member of the Galaxy Evolution Explorer science team and let them know, Seibert says.

So what are you waiting for? Fire up your web browser and let the discoveries begin!

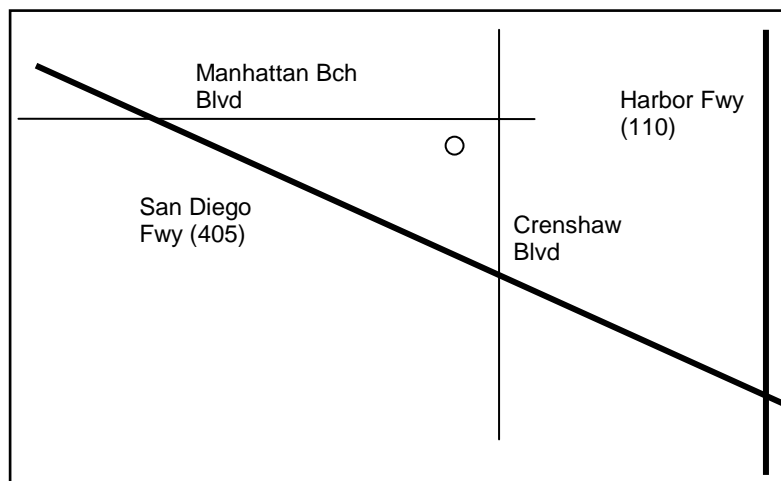
This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

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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).

The planetarium is the only round, domed building on campus. 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, willing to come and talk to us.

Monthly Planning Meeting

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. The January 7th planning meeting will be held 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 Tree Dr. to 3rd house on the right side from the corner – 7022 Willow Tree Dr., Rancho Palos Verdes.

SBAS Membership News

Annual dues are now due for memberships that expire(d) in 2007 or January 2008.

Reminder: Membership dues increased in November to \$36 for email newsletter delivery and \$42 for regular mail delivery.

SBAS YAHOO GROUP

Join our own YAHOO group for up-to-the-minute club news; see astro photos taken by members and be part of the growing online community of the South Bay Astronomical Society. A YAHOO userid is needed (free) then click on GROUPS and search for SBASTRO. Use the JOIN function and you will get notification from the Group's administrator that your application has been accepted. This group is limited to SBAS members. You can specify to have emails sent to your normal email address when you signup. The Executive Board is working to use this vehicle more and more this coming year to deliver information to our members. 25% of our membership has joined. Don't be left out. If you need assistance or have any questions, contact any Board member.

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!

SBAS Membership Benefits

Contact Arnie Stodolsky for magazine subscriptions at club rates: "Sky & Telescope" \$32.95 and "Astronomy" \$34.00/1 year or \$60.00/2 years!

January – Comets & Asteroids

Visible Comets:

Comet	Mag	Constellation(s)
Holmes	3.0 - ?	Perseus

Asteroid Occultations:

Event Summary for Torrance

Local Time			Durn	Star	Mag	Star	Planet	
d-m-y	Hr	Min	m/sec	mag	drop	No.	No	Name
31-Dec-07	18	59.2	2.4s	10.4	5.8	TYC 1866-00867-1u	3127	Bagration

Planetary Occultations:

None

Check the JPL Ephemeris Generator page for coordinates of these objects at:

<http://ssd.jpl.nasa.gov/horizons.cgi#top>

Observing Reports

A Rocket Launch Visible from Torrance - I don't usually observe from my backyard when clouds fill most of the sky and the patio is wet from recently-fallen rain, but I make an exception for rocket launches from the Vandenberg Air Force Base. On Saturday December 8, a Delta II rocket launch was scheduled to lift off with a one-second launch window at 18:31:37, and the spaceflightnow.com Web site was giving up-to-the-second reports that the launch was a go, so out I went.

Sure enough, a couple of minutes later a red dot appeared in the northwest, traveling slowly south and trailing a narrow and deep-red exhaust trail a couple of degrees long. This picturesque view lasted for about one minute, when it all disappeared behind a cloud. The payload is an Italian COSMO-SkyMed 2 radar earth imaging satellite. I wish it well.

- Dr. Steven Morris

Asteroid May Soon Slam into Mars

By Alicia Chang

The Associated Press

posted: 20 December 2007

10:32 pm ET

LOS ANGELES (AP) Mars could be in for an asteroid hit. A newly discovered hunk of space rock has a 1 in 75 chance of slamming into the Red Planet on Jan. 30, scientists said Thursday.

"These odds are extremely unusual. We frequently work with really long odds when we track ... threatening asteroids," said Steve Chesley, an astronomer with the Near Earth Object Program at NASA's Jet Propulsion Laboratory.

The asteroid, known as 2007 WD5, was discovered in late November and is similar in size to an object that hit remote central Siberia in 1908, unleashing energy equivalent to a 15-megaton nuclear bomb and wiping out 60 million trees.

Scientists tracking the asteroid, currently halfway between Earth and Mars, initially put the odds of impact at 1 in 350 but increased the chances this week. Scientists expect the odds to diminish again early next month after getting new observations of the asteroid's orbit, Chesley said.

"We know that it's going to fly by Mars and most likely going to miss, but there's a possibility of an impact," he said.

If the asteroid does smash into Mars, it will probably hit near the equator close to where the rover Opportunity has been exploring the Martian plains since 2004. The robot is not in danger because it lies outside the impact zone. Speeding at 8 miles a second, a collision would carve a hole the size of the famed Meteor Crater in Arizona.

In 2004, fragments of the comet Shoemaker-Levy 9 smacked into Jupiter, creating a series of overlapping fireballs in space. Astronomers have yet to witness an asteroid impact with another planet.

"Unlike an Earth impact, we're not afraid, but we're excited," Chesley said.

Schedule of Coming Events

<p>29 December Saturday Night</p>	<p>In Town Dark Sky Observing Session at Ridgecrest Middle School– 28915 North Bay Rd. RPV, 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 (3rd stop sign from Hawthorne Blvd.), up one block and turn left on North Bay 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 not drip anything you can park with your equipment. Drive with care to avoid steel pillars supporting basketball nets. Note: If you a visitor, not bringing a scope, it is requested that you park in the small parking lot on North Bay Rd.</p>
<p>4 January Friday Night 7:30 PM</p>	<p>Monthly General Meeting</p> <p>Speaker: Steve Edberg</p> <p>Topic: Solar Eclipse Observing: Explanation - Advice - Anecdotes</p>
<p>5 January Saturday Night</p>	<p>Out-of-Town Dark Sky Observing Session</p> <p>Contact Greg Benecke to coordinate a location.</p>
<p>7 January Monday Night 7:30 PM</p>	<p>Monthly Planning Meeting</p> <p>See directions on page 3.</p>
<p>24 January Thursday Evening</p>	<p>Beckman Auditorium at CalTech (Thursday) & Vosloh Forum at Pasadena City College (Friday)</p> <p>“JPL and the Beginnings of the Space Age” Blaine Baggett. At the end of World War II, the Jet Propulsion Laboratory was at the crossroads. Should this outgrowth of Caltech continue to build rockets for U.S. Army in peace time? By 1956, JPL was already seeking a new role and had set its ambitions on teaming with the Redstone Arsenal in Huntsville to launch the first satellite into space.</p>
<p>1 February Friday Night</p>	<p>Monthly General Meeting</p> <p>Speaker: Gene Rogers, Boeing</p> <p>Topic: The Road Not Taken...Yet</p>
<p>2 February Saturday Night</p>	<p>In Town Dark Sky Observing Session at Ridgecrest Middle School</p> <p>See directions above.</p>
<p>4 February Monday Night 7:30 PM</p>	<p>Monthly Planning Meeting</p> <p>Location: TBA</p>
<p>9 February Saturday</p>	<p>Out-of-Town Dark Sky Observing Session</p> <p>Contact Greg Benecke to coordinate a location.</p>

South Bay Astronomical Society

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*General Meeting at El Camino College Planetarium:
Friday, January 4th, at 7:30 P.M.*

Guest Speaker: Steve Edberg, JPL

**“Solar Eclipse Observing: Explanation – Advice -
Anecdotes”**

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South Bay Astronomical Society
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