

FIRST LIGHT



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

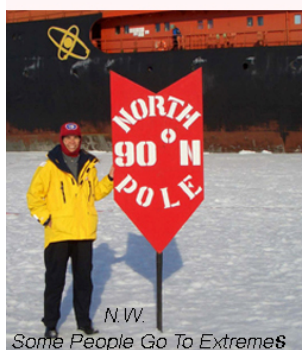
Monthly General Meeting: Friday, October 3rd, 7:30 PM

Guest Speaker: Dr. Mark Moldwin

“The Perils of Space: An Introduction to Space Weather”

. The September 5 Meeting

Our Eclipse Chasers Travel The World



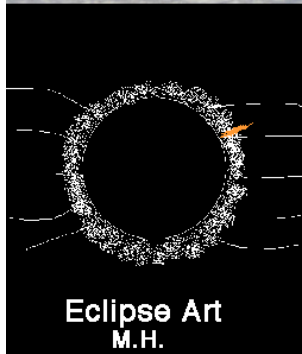
N.W.
Some People Go To Extreme



Curious Visitors



St Basil's - Moscow - R.



Eclipse Art
M.H.



Totally Awsome - N.W.



Diamond Ring - R.R.



Steve In China



Dr Steve Morris Dr Mike Harrison Ron Rennie Nina Whiddon

President Ken Rossi gaveled the meeting to order at 7:33, and began by introducing two newcomers Roy and Chris to the membership. Greg Benecke reported on a new observing site near Red Rock Canyon, which might be suitable for future SBAS star parties. President Rossi reported on recent in-town observing sessions, and reviewed events planned for the near future.

Ken Munson brought an equatorial mount for a Nexstar-8 telescope, made by a friend of his who is willing to donate it to anyone who can put it to good use. It is still available to anyone who wants it. The Manhattan Beach Botanical Garden is planning a star party, and is inviting the SBAS to help. Joe Fierstein has DVD's of the Cassini Mission, available for the members who asked for them. Craig Gates announced a new 'Astronomy for City Dwellers' course.

President Rossi issued a call for nominations for the Executive of the SBAS, as elections are coming up. If you are interested in helping guide the Society into the future, now would be a great time to volunteer your services. A record 60 people were in attendance at this meeting, and

we can hope that some fresh faces will show up among the candidates as well.

The main event of the evening was a set of presentations by four Society members who witnessed the August 1 total solar eclipse. Progressing in order along the eclipse path, Nina Whiddon began by describing her trip on a Russian nuclear icebreaker to the North Pole, along with 110 other passengers. Starting at Murmansk, they cut through the ice to 90 degrees north, taking helicopter flights from the deck of the ship and sighting some polar bears along the way. As Nina has been to the South Pole as well, she is now our first officially bi-polar member. On eclipse day, the captain was able to maneuver the ship to reach a clear patch of sky for the all-important minutes of totality. Clouds rolled in later as the ship took the successful expedition back to Murmansk.

Ron Rennie flew from Frankfurt to Moscow and on to Novosibirsk, with a tour of Star City (Russia's version of our space effort's Houston) along the way. He observed the eclipse from the shores of Lake Ob a few miles outside of Novosibirsk and also experienced a clear totality despite clouds nearby. Ron presented us with a four-minute video, including all of totality as seen through a telescope. Ron then flew back to Moscow, and on to St. Petersburg for three days.

Michael Harrison also went to Novosibirsk and saw the eclipse by Lake Ob. Michael's presentation included images of his boat tour of the Ob River and his tour of the TAL telescope-making factory.

Steven Morris was the last speaker, as he viewed the eclipse from China, with totality only 19 degrees off the horizon. The previous three presenters had booked their tours through TravelQuest, but Steven and his wife Helen used Civilized Adventures, in Calgary. They flew from Vancouver to Shanghai, and on to Urumqi in the far west of China. The next week was filled with bus rides along the ancient Silk Route, in the footsteps of Marco Polo. On Eclipse Day, the sixty members of the tour took two buses through the Gobi Desert to Eclipse City, which the local authorities had set up for all the eclipse chasers.

Clouds threatened, and the expedition decamped north (through a traffic jam of buses) to within a few miles of the Mongolian border. Ten minutes before totality the border patrol showed up, and there were a few tense moments as the tour guides explained that we were there just to see the eclipse (which the patrol hadn't known about).

Fortunately, the officer in charge was a reasonable man, and we were allowed to stay without trouble. The eclipse was as spectacular for them as for everyone else, and made up for all the difficulties of travel in faraway lands.

With that, President Rossi thanked all four speakers, and brought the meeting to an end at 9:31.

- Dr. Steven Morris



Extreme Starburst

by Dr. Tony Phillips

A star is born. A star is born. A star is born.

Repeat that phrase 4000 times and you start to get an idea what life is like in distant galaxy J100054+023436.

Astronomers using NASA's Spitzer Space Telescope and ground-based observatories have found that the galaxy gives birth to as many as 4000 stars a year. For comparison, in the same period of time the Milky Way produces only about 10. This makes J100054+023436 an extreme starburst galaxy.

"We call it the 'Baby Boom galaxy,'" says Peter Capak of NASA's Spitzer Science Center at the California Institute of Technology in Pasadena, CA. "It is undergoing a major baby boom, producing most of its stars all at once. If our human population was produced in a similar boom, then almost all people alive today would be the same age." Capak is lead author of a paper entitled "Spectroscopic Confirmation of an Extreme Starburst at Redshift 4.547" detailing the discovery in the July 10th issue of *Astrophysical Journal Letters*.

The galaxy appears to be a merger, a "train wreck" of two or more galaxies crashing together. The crash is what produces the baby boom. Clouds of interstellar gas within the two galaxies press against one another and collapse to form stars, dozens to hundreds at a time.

This isn't the first time astronomers have witnessed a galaxy producing so many stars. "There are some other extreme starburst galaxies in the local universe," says Capek. But the Baby Boom galaxy is special because it is not local. It lies about 12.3 billion light years from Earth, which means we are seeing it as it was 12.3 billion years ago. The universe itself is no older than 14 billion years, so this galaxy is just a youngster (Capak likens it to a 6-year-old human) previously thought to be incapable of such rapid-fire star production.



The "Baby Boom" galaxy loosely resembles the galaxy shown here, called Zw II 96, in this Hubble Space Telescope image. This galaxy is only 500 million light-years away, while the Baby Boom galaxy is 12.3 billion light-years away.

The Baby Boom galaxy poses a challenge to the Hierarchical Model of galaxy evolution favored by many astronomers. According to the Hierarchical Model, galaxies grow by merging; Add two small galaxies together, and you get a bigger galaxy. In the early years of the universe, all galaxies were small, and they produced correspondingly small bursts of star formation when they merged. "Yet in J100054+023436, we see an extreme starburst. The merging galaxies must be pretty large."

Capak and colleagues are busy looking for more Baby Boomers "to see if this is a one-off case or a common occurrence." The theory of evolution of galaxies hangs in the balance.

Meanwhile... A star is born. A star is born. A star is born.

See more breathtaking Spitzer images at www.spitzer.caltech.edu/Media/mediainages. Kids can play the new Spitzer "Sign Here!" game at spaceplace.nasa.gov/en/kids/spitzer/signs.

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

SBAS Executive Board

President	Ken Rossi	515-1586	ken_a_rossi@yahoo.com
Vice-President	Ron Rennie	326-5589	vidron@sbcglobal.net
Secretary	Steve Pedersen	378-6479	eponstlyusc82@earthlink.net
Treasurer & Astronomical League Rep.	Arnie Stodolsky	937-0220	astodols@ix.netcom.com

SBAS Committees

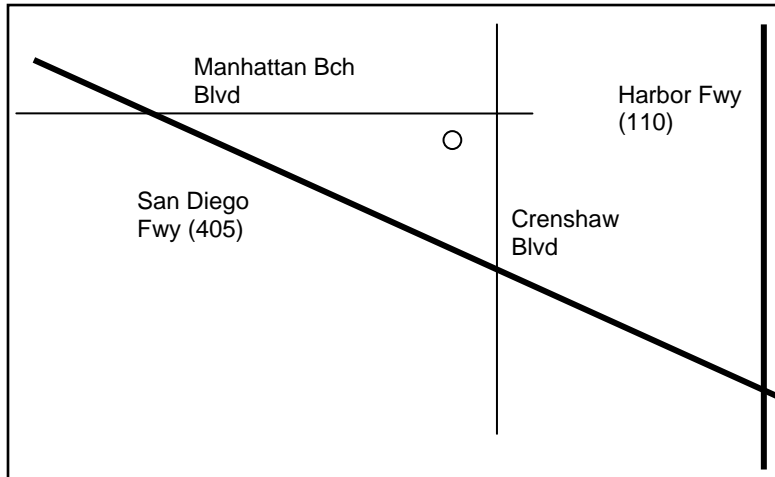
Program Chairman	Ron Rennie	326-5589	vidron@sbcglobal.net
Astronomical League Liaison	Bill Eisele	542-5070	Astronomy131@msn.com
Newsletter Reproduction	Arnie Stodolsky	937-0220	astodols@ix.netcom.com
Publications Committee:			
SBAS Website Webmaster	Alex Athas		sbas_elcamino@yahoo.com
First Light Editor	Ken Munson	782-0873	kenmunson333@sbcglobal.net
Observing Committee	Greg Benecke	217-1512	BeneckeRUs@aol.com
	Craig Gates	376-6387	- - -
Membership Committee	Ray Grace	370-1913	rgrace3@verizon.net
Publicity Committee	Joe Fierstein	377-9834	joefiers@aol.com
	Arnie Stodolsky	937-0220	astodols@ix.netcom.com
Property Committee	Arnie Stodolsky	937-0220	astodols@ix.netcom.com
Outreach Committee	Joe Fierstein	377-9834	joefiers@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 (16007 Crenshaw Bl. In Torrance). 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 October 6th planning meeting will be held at the home of

Ray Grace, 2706 Spreckels Lane in Redondo Beach (310) 370-1913. Take Hawthorne Blvd to 190th St., turn West to Inglewood Ave., then turn North (right) and proceed two blocks to Spreckels Lane and turn Right. If driving South on Inglewood Ave., Spreckels Lane is two blocks south past the light at Ralston Ave., and turn Left, to the 4th house on the right (South side). Parking is available on both sides of the street.

Membership Dues Schedule

Month Join/Due	Member (Family)		Student	Expires
	USMail	Email		
January	\$38.50	\$33.00	\$22.90	12/2008
February	\$35.00	\$30.00	\$20.85	12/2008
March	\$31.50	\$27.00	\$18.75	12/2008
April	\$28.00	\$24.00	\$16.70	12/2008
May	\$24.50	\$21.00	\$14.60	12/2008
June	\$21.00	\$18.00	\$12.50	12/2008
July	\$17.50	\$15.00	\$10.45	12/2008
August	\$14.00	\$12.00	\$8.40	12/2008
September	\$10.50	\$9.00	\$6.25	12/2008
October	\$49.00	\$42.00	\$29.20	12/2009
November	\$45.50	\$39.00	\$27.10	12/2009

December	\$42.00	\$36.00	\$25.00	12/2009
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To simplify the dues, we suggest that all membership expire in December. Dues are \$42.00/year for FirstLight via US Mail, or \$36.00 via Email notification (\$25.00/year for students) and expire on December 31, of the current year. New members use Month Join, and current members select your expiring Month to calculate the amount. Members that expire in October or November may wish to write one check and include next years membership. Make checks payable to the South Bay Astronomical Society. Dues may be paid at the general meeting or mailed to:

South Bay Astronomical Society
Attn: Arnie Stodolsky
P.O. Box 1937
Redondo Beach, CA 90278

RASC 2009 Observer's Handbook

If you want to obtain a copy of the RASC 2009 Observer's Handbook through the SBAS, orders will be taken at the October 3rd General Meeting or mail a check made out to SBAS to the Club's PO Box. The estimated cost is \$20. If less, a refund will be issued. All orders and monies must be in by October 15th.

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!

Note: S&T subscribers at the club rate renew their subscriptions by mailing their renewal notice and check or calling the 800# on the renewal notice.

Only new subscribers or subscribers converting their subscription to the club rate need to contact Arnie or send a check to the PO Box. Astronomy subscriptions and renewals still go through Arnie or via the PO Box.

New Members

We welcome new club members Celeste Coar and June Choo.

Observing Reports

Report on Saltdale new site: Greg B, Steve L, and I(Craig G) started out to Red Rock Canyon Aug.30 to do the normal things... setup our equipment, have a good time of fellowship, and enjoy the dark skies! We left around 2:30--the 405 was very slow--arrived in Mohave about 5:30--stopped at Carls jr to get some health food. Boy was it good!

The weather did not look good further north. We thought about going to my place, Bear Valley Springs--Great place atop a mountain at 6000 feet, but subject to the wind, which didn't look good either-Plan C - Off to Saltdale dry lake about 20 miles north on hwy 14. We're on the road again--made it around 6:00. Things were looking pretty good. Some high clouds but we're going for it!! Things went well for Greg and myself. Steve was having bad night, but a good attitude! Bottom line: Steve's dec motor didn't work. As night fell the clouds left and the wind was calm.

Greg had to think backward and upside down for drift alignment because of a different scope! Greg very smart, no problem for him. I did my normal alignment just for viewing. The sky was very dark--21.30 on the dark meter and anything over 21 is good. Death Valley was 21.42. The seeing never got really good-- on a scale from 1 to 10 it was about 6 maybe 7 at times. The night was warm 70 - 60 in the morning. Greg imaged the Veil, M31 etc.

The police came by to check us out around 2AM to see what was up (get it?) I showed them M13, the double cluster, and Jupiter-- they were Happy Cops! I decided to try my luck with my camera. I hooked it to my C14,

pointed it to the ring nebula, set the ISO to 800, clicked the shutter for one minute and held my breath. Guess what! there it was! It actually did look like the ring nebula. I'M HOOKED!! I spend the next hour experimenting on different things and settings. My pictures all had trails but I can fix that.

Steve did figure out how to use his telescope, and take a few pictures. I personally like this site more than Red Rock -- plenty of room... no bumpy roads!

- **Craig Gates**

Harvest Moon Watch – On Saturday, September 14th, Ray Grace, Joe Fierstein, Walt Prue, Jacques Linder, Elliot Silverstein, Jim Winterroth, and Steve Pedersen provided the Manhattan Beach Botanical Garden with a telescopic view of the Harvest Moon. The Manhattan Beach Botanical Garden is a non-profit public educational organization dedicated to promoting earth-friendly gardening and conserving our natural resources. The South Bay Astronomical Society was asked to view the moon, we did including the moons of Jupiter. About 75 people attended the two-hour program.



Schedule of Coming Events

3 October Friday Night 7:30 PM	Monthly General Meeting Guest Speaker: SBAS's intrepid eclipse chasers Ron Rennie, Dr. Steven Morris, and Dr. Perry Hacking report on the total solar eclipse of August 1 st ,2008.
6 October Monday Night 7:30 PM	Monthly Planning Meeting See directions on Page 4.
16 October Thursday 7:00 PM	JPL's Von Karman Lectures: New Wheels on Mars Richard Cook. Building on the success of the two rover geologists that arrived at Mars in January, 2004, NASA's next rover mission will depart for the Red Planet in 2009. Twice as long and five times as heavy as the Mars Exploration Rovers, the Mars Science Laboratory will collect Martian soil and rock samples and analyze them for organic compounds and minerals which demonstrate that Mars can or did support life. Location: Von Karman Auditorium at JPL 3800 Oak Grove Dr. Pasadena
17 October Friday Night	Los Angeles District Boy Scouts of America Camp-o-ree Firestone Scout Reservation, Loma Linda 91 Freeway to 57 Freeway North to Tonner Canyon Road East
18 October Saturday Night	In Town Dark Sky Observing Session at Ridgecrest Middle School – 28915 NorthBay Rd. RPV, Weather Permitting: Please contact Greg Benecke to confirm that the gate will be opened! Or possible Rancho Del Mar High School, Rancho Palos Verdes, if on-going construction at Ridgecrest prevents that site from being used.
25 October Saturday Evening	Out-of-Town Dark Sky Observing Session Contact Greg Benecke to coordinate a location.

South Bay Astronomical Society

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*General Meeting at El Camino College Planetarium:
Friday, October 3rd, at 7:30 P.M.*

Dr. Mark Moldwin

The Perils of Space: An Introduction to Space Weather

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South Bay Astronomical Society
P.O. Box 1937
Redondo Beach, CA 90278