FIRST LIGHT

Journal of the South Bay Astronomical Society – May 2009
on line at www.geocities.com/sbas_elcamino

Monthly General Meeting: Friday, May 1st, 7:30 PM

Guest Speaker: Tim Thompson, Los Angeles Astronomical Society
"Galaxies"

The April 3 Meeting

The meeting was delayed for a few minutes, as most of the audience gathered outside to watch the International Space Station traverse the dusky but cloudless sky. As predicted, a brilliant (V ~ -2) white dot passed from the northwest to the southeast, remaining in view for approximately four minutes.

President Ken Rossi then began the meeting at 7:37 with newcomers (including Jennifer Rennie) introducing themselves. Various outreach efforts were described, including a program at Dodson Middle School. As a thank-you, for the gift!

Greg Benecke, Craig Gates and Gerry Stowe each reported on their own recent dark-sky observing experiences, and Perry Hacking reported that the asteroid Ceres reached opposition this spring, and was resolved as a tiny disk by the El Camino College telescope. President Rossi pointed out how much we owe El Camino College and its staff for letting us use their facilities, which the audience seconded with a round of applause.

Winners of the 2nd Annual Astrophoto Contest – Tom Bash, Greg Benecke and Craig Gates

Our work for the International Year of Astronomy continues, including setting up telescopes at the Marsee Auditorium at El Camino College for the 100 Hours of Astronomy program scheduled worldwide for the beginning of April. One of its goals is to have more than one million people view a celestial object through a telescope for their first time!

After a fifteen-minute social break, President Rossi turned the meeting over to Vice-President Ron Rennie for the

Second Annual Astrophoto Competition. Ron read out the rules, and Steve Lindsey started with his deep-sky photos taken with a TEC140 f/7 apochromatic refractor. His seven selections included such favorites as the Owl Nebula, the Helix Nebula and the Christmas Tree open cluster. Greg Benecke was next with his rather ominously-titled 'My Last Year of Astrophotography', which included about a dozen deep-sky objects (his photo of the Horsehead and Flame nebulae was particularly vivid) and a few wide-field constellation photographs. We trust he will continue taking astrophotographs for years to come.

Tom Bash was next, with a few deep-sky objects but with some solar-system objects as well. Eighteen images of Jupiter taken over the course of one night were strung together to produce a mini-movie, illustrating the orbits of the moons and the motion of features on the planet's disk. He also showed a color image of the Moon, with the colors exaggerated to make them obvious. Another image of the Moon was color-coded according to the amount of surface polarization. This is a research project that Tom Bash hopes to pursue in the coming year.

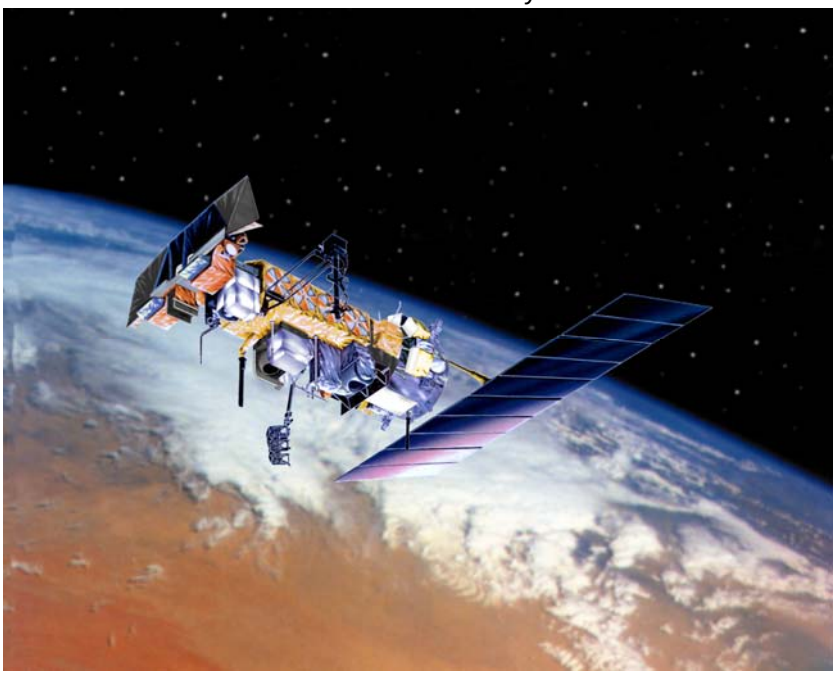
Craig Gates then presented his work, including photos of his equipment and observing site, and describing the progress that he has made in the last year. The three judges (Dicie Sizemore, Steve Pedersen and Steven Morris) retired to determine how the prizes should be awarded, as the other 35 people present discussed their own selections. The result: Best Overall Presentation to Tom Bash, Best Individual Astrophoto to Greg Benecke for his picture of the Pleiades, Best Novice Astrophoto to Steve Lindsey for his photo of the Christmas Tree open cluster (NGC 2362)and an Honorable Mention; Good Success Story to Craig Gates. A round of applause greeted this announcement, and the meeting ended at 9:42.

- ***Dr. Steven Morris***

The Swiss Army Knife of Weather Satellites

Spotting volcanic eruptions, monitoring the health of crops, pinpointing distress signals for search and rescue teams.

It's not what you might expect from a weather satellite. But these are just a few of the abilities of NOAA's newest polar-orbiting weather satellite, launched by NASA on February 6 and turned over to NOAA for full-time operations on February 26.



The new NOAA-19 is the last and most capable in the long line of Television Infrared Observation Satellites (TIROS).

Formerly called NOAA-N Prime and now renamed NOAA-19, it is the last in its line of weather satellites that stretches back almost 50 years to the dawn of the Space Age. Over the decades, the abilities of these Television Infrared Observation Satellites (TIROS) have gradually improved and expanded, starting from the grainy, black-and-white images of Earth's cloud cover taken by TIROS-1 and culminating in NOAA-19's amazing array of capabilities.

"This TIROS series has become quite the Swiss army knife of weather satellites, and NOAA-19 is the most capable one yet," says Tom Wrublewski, NOAA-19 Satellite Acquisition Manager at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

The evolution of TIROS began in 1998 with NOAA-K. The satellites have carried microwave sensors that can measure temperature variations as small as 1 degree Celsius between Earth's surface and an altitude of 40 kilometers—even through clouds. Other missions have added the ability to track large icebergs for cargo ships, monitor sea surface temperatures to aid climate change research, measure the amount of ozone in

Earth's protective ozone layer, and even detect hazardous particles from solar flares that can affect communications and endanger satellites, astronauts in orbit, and city power grids.

NOAA-19 marks the end of the TIROS line, and for the next four years it will bridge the gap to a new series of satellites called the National Polar-orbiting Operational Environmental Satellite System. NPOESS will merge civilian and military weather satellites into a single system. Like NOAA-19, NPOESS satellites will orbit Earth from pole to pole, circling the planet roughly every 100 minutes and observing every location at least twice each day.

NPOESS will have yet more capabilities drawn from its military heritage. Dim-light sensors will improve observations of the Earth at night, and the satellites will better monitor winds over the ocean — important information for ships at sea and for weather and climate models.

"A lot more capability is going to come out of NPOESS, improving upon the 161 various environmental data products we already produce today," Wrublewski says.

Not even a Swiss army knife can do that many things, he points out.
For more on the NPOESS, check out http://www.npoess.noaa.gov. Kids can find out about another NOAA satellite capability—tracking endangered migrating species—and play a fun memory game at http://spaceplace.nasa.gov/en/kids/poes_tracking.

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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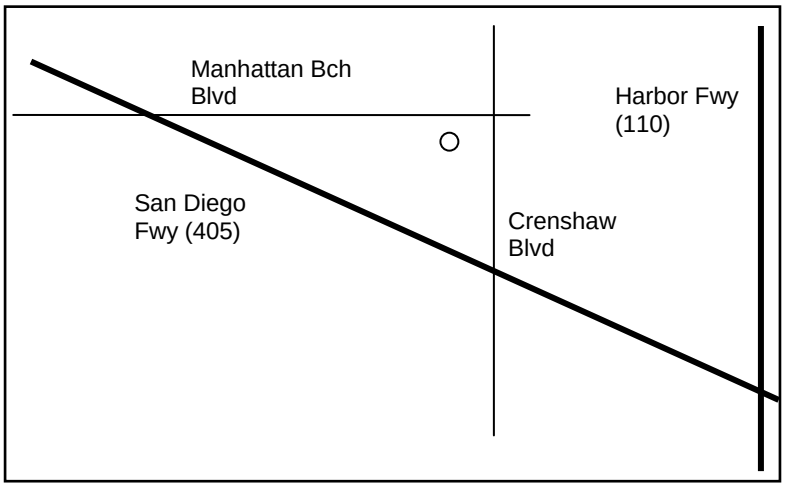
Monthly General Meetings



We normally meet on the first Friday of each month at 7:30 p.m. in the Planetarium at El Camino College (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 May 4th planning meeting will be held at the home of to be announced.

Membership Dues Schedule

Month Join/Due	Member (Family)		Student	Expires
	USMail	Email		
January	$38.50	$33.00	$22.90	12/2009
February	$35.00	$30.00	$20.85	12/2009
March	$31.50	$27.00	$18.75	12/2009
April	$28.00	$24.00	$16.70	12/2009
May	$24.50	$21.00	$14.60	12/2009
June	$21.00	$18.00	$12.50	12/2009
July	$17.50	$15.00	$10.45	12/2009
August	$14.00	$12.00	$8.40	12/2009
September	$10.50	$9.00	$6.25	12/2009
October	$49.00	$42.00	$29.20	12/2010
November	$45.50	$39.00	$27.10	12/2010
December	$42.00	$36.00	$25.00	12/2010

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

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.

Astronomical League Observing Clubs

All SBAS members in good standing are also members of the Astronomical League and are eligible to participate in the League's Observing Clubs. The Astronomical League provides many different observing programs (clubs). These programs are designed to provide a direction for your observations and to provide a goal. The programs have certificates and pins to recognize the observers' accomplishments and for demonstrating their observing skills with a variety of instruments and objects. For more information go to:

http://www.astroleague.org/observing.html.

Observing and Outreach Events

WOW! VERY COOL! THANK YOU! Were the words most often heard from the 150 or so attendees at Star Party held at El Camino College on Saturday, April 4th. Working with the Astronomy Department, SBAS held its first star party at the College. The event, part of the 100 Hours of Astronomy Cornerstone Project of the International Year of Astronomy (IYA 2009), was held in the parking lot by the Marsee Auditorium. Although hampered by the bright lights, attendees were able to view Saturn (its rings were almost edge-on), a waxing, gibbous Moon, the Orion nebula, double stars and a few other objects through the dozen scopes brought by SBASers Tom Bash, Craig Gates, Ken Lehmer, Freddy Limas, Larry, Kinney, Ed Malewitz, Tim Moore, George Nestjoko, Ken Rossi, Arnie Stodolsky, and Gerry Stowe. Also in attendance were members Patricia Dobbins, Joe Fierstein, Michael Harrison and Steven Pedersen. The event, lasting from 7:00 pm to 10:00 pm brought out many families with school age children, our target audience. Many were first time observers. The goal of the 100 HA project was to have one million (1,000,000) new observers world-wide during the 100 hours from April 2nd through April 5th. One activity that drew a large crowd of children was when Tom Bash was doing real-time photography of the Moon using his laptop computer. Being able to view the Moon on its screen presented a familiar interface for these children and they responded quite positively to it. The use of video is becoming more prevalent in outreach. All-in-all a very successful outing. Utilizing a centrally located facility seems to guarantee a well attended event. For more information on the International Year of Astronomy, go to the website: http://www.IYA2009.org.

- Arnie Stodolsky

It's been a busy month for outreach activities with the SBAS!

SBAS Observes IYA 100 Hrs Of Astronomy
El Camino College, Marsee Theater, 4/4/09

Schedule of Coming Events

1 May Friday Night 7:30 PM	**Monthly General Meeting** Guest Speaker: Tim Thompson, Los Angeles Astronomical Society Topic: Galaxies
2 & 3 May	**JPL Open House** 3800 Oak Grove Dr. Pasadena
4 May Monday Night 7:30 PM	**Monthly Planning Meeting** See directions on Page 4.
8 May Friday Evening	**Pt Vicente School Star Party** 30540 Rue de La Pierre, RPV 90275
14 May Thursday Night 7:00 PM	**JPL's Von Karman Lectures: Rainbows, Kepler – A Planet-Hunting Mission** by Dr. James Fanson, Project Manager, Kepler Kepler, a NASA mission launching in the spring of 2009, is a spaceborne telescope designed to survey distant stars to see how common Earth-like planets are. Kepler will detect planets indirectly, using the "transit" method – measuring how a star's light dims slightly as one of its planets passes in front of it. Besides revealing the presence of a planet, this light signature can also tell us the planet's size and orbit. Other measures then are used to determine if each planet discovered is in the habitable zone; that is, at the distance from its star where liquid water could exist on the surface of the planet. Location: Von Karman Auditorium at JPL 3800 Oak Grove Dr. Pasadena
15 May Friday Evening	**Science Night & Star Party at Cornerstone School** 6069 Grove Oak Place, RPV, 90275
16 May Saturday Night	**In Town Dark Sky Observing Session at Ridgecrest Middle School–** 28915 NortbBay Rd. RPV, Weather Permitting**:** Please contact Greg Benecke to confirm that the gate will be opened! Alternate site: Rancho Del Mar High School -
22 May Friday Morning	**Willowbrook Middle School, Compton** Daytime talk 5-8th grade; Call Joe if you are available to accompany him. 310-377 9834
23 May 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, May 1st, at 7:30 P.M.

Tim Thompson, Los Angeles Astronomical Society

"Galaxies"

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P.O. Box 1937
Redondo Beach, CA 90278