

The SAN MATEO COUNTY ASTRONOMICAL SOCIETY

May 2015 – 629th General Meeting Notice



EVENT HORIZON

Founded in 1960, the San Mateo County Astronomical Society is a 501(c)(3) non-profit organization for amateur astronomers and interested members of the public. Visitors may attend Society meetings and lectures on the first Friday of each month, September to June, and star parties two Saturdays a month. All events are free for visitors and guests. Family memberships are offered at a nominal annual cost. Detailed info is found at www.smcas.com, where those who want can join via Paypal.

Membership includes access to this monthly Event Horizon newsletter, discounted costs and subscriptions to calendars and magazines, monthly star parties of the Society and the College of San Mateo, use of loaner telescopes, field trips, social occasions and general meetings presenting guest speakers and programs. For additional information, please email us at SMCAS@live.com, or call us at (650) 678-2762.



PACK LIGHT, BUT DON'T FORGET THE SIGN...Tom Stephany, SMCAS board member, visited Svalbard, Norway in March to view the solar eclipse. Tom carried this sign more than 4,200 miles – along with his cold weather gear – to recognize SMCAS at the event. Although it's a little hard to read at this size, the text reads, "San Mateo County Astronomical Society Remote Observation Post," with SMCAS logos on both sides. Article and photos from Tom on pages 8-9.

Table of Contents

| | |
|----------------------------------------------------|-----|
| Organizational Information | 1 |
| President's Corner | 2-3 |
| May Meeting Information | 4 |
| SMCAS Event Schedule | 5 |
| Local Observing Sites | 6-7 |
| Members Forum: Solar Eclipse Viewing in the Arctic | 8-9 |
| Rise and Set Chart | 10 |
| Marketplace | 11 |
| Directions to CSM, Crestview | 12 |
| Application Form & Club Info | 13 |

SAVE THESE DATES! MORE EVENTS ON PAGE 5

- **SMCAS General Meeting**
Friday, May 1, 2015. CSM Planetarium, 7:00 p.m.
Evening's activities include pizza, an informal general meeting, and a special presentation at 8:00 p.m. Dr. Graeme Smith will speak on the Globular Clusters of the Milky Way. Find details on page 3.
- **SMCAS Members Tour of SLAC**
Friday, May 8, 2015, 2:30 p.m. Members only, RSVP to Marion Weiler required.
- **Crestview Star Party**
Saturday, May 16, 2015. Crestview Park, San Carlos, 8:15 p.m.

President's Corner

We had a busy past month at SMCAS! We had a great spring Equinox social on March 28 with about 25 attending, enjoyed Mohsen Janatpour's lecture in the CSM Theatre on April 3, and handled a wide variety of Star Parties, including at our usual Crestview Park location, but also at a diverse set of other venues that gave our astronomers access to a large number of people, e.g. the Bayside School STEM fair (500 people), the KIPAC Open House on Stanford Campus (1,000 people), Hillsborough South School third grade (50 people), Montara Lighthouse (25 people), Mohsen's Lecture (250 people).

The takeaway on all this activity is that we really do have a lot of community impact with astronomy outreach in San Mateo County! Thanks go to all our astronomers who represented SMCAS at all these events, especially to Ed Pieret who tirelessly manages to schedule and coordinate most of these star parties, as well as to a host of others who have provided support at our star parties this year, such as Leroy Amen, Bob Black, Karen Boyer, Ron Cardinale, Edwin Ching, Bob Fies, Bill General, Bruce Huston, Kian Jek, Chanan Greenberg, Ted Jones, Ken Lum, John Fiske, Rachel Freed, Michael Ryan, Mike Ryan, Mel Pritchard, Tom Stephany, Andy Thanos, Alexa Thanos, Frank Seminaro, and more. My apologies if I missed anyone, this is not a comprehensive list.

To keep up all these SMCAS activities that provide benefits for both our members and the community requires planning and direction by the SMCAS board of directors. So it is timely for me to mention that the SMCAS Board of Directors is coming up for election, and we need member volunteers for these positions. The Board nominating period opens with the May 1 meeting, remains open for a month, and the election for our 2015-16 board is held at our June 5 meeting. We are a volunteer organization, and this is a chance for members to get more deeply involved in the direction of SMCAS. We need your help to keep up the good work, so please consider getting involved!

If addition to Board positions, we have other responsibilities which we need volunteers to take on, including Event Horizon Editor, general meeting room set-up, membership, and more. If you are interested in Board or executive positions, or in taking on some other responsibility, please contact any Board member and discuss your interests with them.

One outcome of the recent survey we did on building a better SMCAS is that we found members are interested in more educational opportunities about astronomy and telescopes, want more information sharing and to learn more from our experienced members. So, we are going try and meet that interest by adding a new feature to our monthly general meeting in the ISC room: time for members to share astronomy information and insights. To jump start discussion and sharing, we'll give this a try starting with the May meeting.

In closing, I would like to thank Dean Drumheller, the CSM observatory/planetarium manager,

Continued on page 4

President's Corner, cont'd from page 3

who has supported our SMCAS meetings for so many years, including opening/closing the planetarium for us, setting up and running the AV for our speakers, and much more. Dean will soon be retiring from CSM, and we will miss him!

Marion Weiler

*President, San Mateo County Astronomical Society
mgwe@pacbell.net*

Photos from Recent Club Activities: Equinox Party and KIPAC Star Party



Photos courtesy of Marion Weiler.

Left: Board member Karen Boyer cooking up a pot of spaghetti at the spring Equinox party.

Bottom left: Rachel Freed at the KIPAC Open House Star Party on April 11 at the Stanford University campus.



Bottom right: Ken Lum at KIPAC Open House.



Globular Clusters of the Milky Way

Date/Time: Friday, May 1, 2015

General meeting at 7:00 p.m., presentation at 8:00 p.m.

Speaker: Dr. Graeme Smith

Professor of Astronomy and Astrophysics, UC Santa Cruz

Astronomer, UC Observatories/Lick Observatory

Topic: Globular Clusters of the Milky Way

Globular clusters are ancient stellar systems that formed at very early times in the history of the Milky Way galaxy. Professor Smith's talk will examine how globular clusters are distributed within the Milky Way, their ages, chemical compositions, and the types of stars found within them. Such basic properties of globular clusters will be described with a particular emphasis on how these systems of stars can serve as an astronomical fossil record.

Much of Professor Smith's research centers on properties of red giant stars within the Milky Way galaxy: their physical evolution, their chromospheric activity and mass loss, and what they can tell us about the chemical enrichment history of the Galaxy. Much of this later work has been directed towards the study of abundance differences among stars within globular clusters. These ancient stellar systems formed at a time when the process of chemical enrichment was just commencing within the Milky Way galaxy.

Striking differences in the abundances of elements such as carbon, nitrogen, and oxygen exist among stars within the same globular cluster. Understanding the origin of these differences can provide information about the early environment in the halo of the Galaxy, within which the globular clusters formed, as well as processes such as deep mixing that occur within the interiors of cluster red giants.

Other areas of interest to Smith include the chromospheric activity among evolved red giants, particularly those of Population II; the spectroscopy of comets in our Solar System; and the chemical composition of red giants in Galactic open clusters.



Dr. Graeme Smith
Professor of Astronomy and Astrophysics, UC Santa Cruz,
and Astronomer, UC Observatories/Lick Observatory

Mark Your Calendars! Many Fun, Family and Educational Activities Scheduled For the Next Few Months, Including an SMCAS Members Tour of SLAC

We have many fun and interesting events scheduled for the next several months. Mark your calendars now, and please contact Ed Pieret (epieret@comcast.net) if you are available to volunteer to help out with Star Parties at Crestview Park and other locations.



Here is a summary of activities planned for the group through October 2015. Our event list will be updated regularly!

| | | |
|---------------------------|-----------|---------------------------------------------------------------------------------------|
| Friday, May 1, 2015 | 7:00 p.m. | General Membership Meeting, Pizza Social and Presentation |
| Friday, May 8, 2015 | 2:30 p.m. | SLAC National Accelerator Lab Tour (Members only by RSVP to Marion Weiler) |
| Saturday, May 16, 2015 | 8:15 p.m. | Crestview Star Party |
| Saturday, May 23, 2015 | 8:15 p.m. | Crestview Star Party |
| Friday, June 5, 2015 | 7:00 p.m. | General Membership Meeting, Pizza Social and Presentation |
| Saturday, July 11, 2015 | 6:00 p.m. | Annual Banquet and Officer Installation Roundtable Pizza, San Mateo |
| Saturday, August 15, 2015 | 4:00 p.m. | Fremont Peak Star-B-Que San Juan Bautista, CA |
| Friday, Sept. 4, 2015 | 7:00 p.m. | General Membership Meeting, Pizza Social and Presentation |
| Friday, Oct. 2, 2015 | 7:00 p.m. | General Membership Meeting, Pizza Social and Presentation |
| Saturday, Oct. 17, 2015 | 2:00 p.m. | Family Science and Astronomy Festival |

Observing Sites Open to the Public on the Peninsula

Crestview Park, Montebello Open Space and Fremont Peak State Park Can Provide Great Viewing Opportunities Locally

By Kenneth Lum, SMCAS Board Member

I am writing this article as a response to those answering our club's recent survey of the membership as to what they wanted from the San Mateo Co. Astronomical Society, One item that came up from some members was whether there were other local observing sites on the Peninsula available with dark skies that were used regularly by amateur astronomers.

Finding a suitable dark sky observing site on the Peninsula is a considerable challenge as this area is now highly urbanized and lit up with light pollution from many typical urban sources. Balancing darkness of skies with easy accessibility is difficult so one should not expect great results without traveling a considerable distance out of the immediate area. Also, if your goal is to educate the public about astronomical objects, remote sites remove your activity from accessibility by the general public you want to serve. In that case, it is better to find other ways to deal with light pollution so as to be closer to your audience. On the other hand, if your goal is to perform more solitary activities such as imaging or visual searching for the faintest possible faint fuzzes, then a darker, more remote site requiring travel of some distance may be better for you.

I presently recommend three sites that are within a convenient reach of the mid-peninsula.

Crestview Park, San Carlos — The SMCAS has been using this site for its monthly star parties for quite a few years. For accessibility, it is hard to beat, even being only 4 blocks from where I live! So if I forget something, I am very close to home. The parking lot provides a very convenient hard surface on which to plant your telescopes very stably. In addition, the newly installed turnaround about the old redwood tree provides a very nice way for people to maneuver their cars around the entrance/exit end of the site without interfering too much with the telescopes. Its location has attracted many of the general public from the area to



come and participate in our observing activities making it even more fun. Admittedly, it is not very dark by rural standards, but is a very good location to concentrate on visual observing of mostly Messier objects. The large redwood tree to the south does interfere temporarily with some southern sky visibility as sky objects pass behind the tree with the Earth's rotation.

Continued on page 8.

Photos courtesy of Ken Lum.

Observing Sites Open to the Public on the Peninsula

Continued from page 7

Montebello Open Space, Los Altos Hills/Los Gatos/Palo Alto — This is a large parking lot at the top of Page Mill Road near Skyline Blvd. along the crest of the Santa Cruz Mountains. There is a gate which is usually locked so access is limited. Mostly, it is used by members of an online astronomy club, The Astronomy Connection or TAC (<http://www.observers.org/>) based out of Los Altos, but everyone is welcome. I would check the calendar on TAC's website to see when they are up there observing. Having lots of people around provides a better sense of security. I do recommend contacting someone on one of TAC's observing forums to see if anyone is going up. I find the site to be somewhat darker than Crestview, especially to the west, but only marginally so. To the east, it suffers considerably from light pollution. The observer forums also have discussions of lesser known sites such as Henry Coe State Park in Morgan Hill and Dinosaur Point down by Pacheco Pass.

Fremont Peak State Park, San Juan Bautista — This is the darkest site within a 2 hour drive of the Mid-Peninsula. it is located along south Hwy 101 just outside the town of San Juan Bautista. it is a state park with a 30" telescope run by the Fremont Peak Observatory Association ([FPOA-http://www.fpoa.net/](http://www.fpoa.net/)). Public star parties are frequently held there so check their calendar. There are light domes to the west from the City of Salinas and to the south from the Soledad prison, but the rest of the sky is pretty dark-but not as good as going all the way to Yosemite and its environs. While it is close enough for a speed king to get down there, do your astronomy and get back by the next morning, a more relaxed approach would be to go down there, do your astronomy and camp out at the camp sites west of the observatory area. It is best to join the FPOA via their web site and make reservations before going down there, especially if you want to use their observing pads supplied with 120v electrical outlets. I go there every August for their annual Star -B-Que at New Moon Weekend to observe and

camp until the next morning before heading home. This year the event will be on August 15.

Fremont Peak State Park...home of the Annual Star-B-Que hosted by the Astronomical Association of Northern California. The event is usually attended by SMCAS members who camp and observe for the night.



Members Forum

SMCAS Member Recaps His Experience Viewing the Solar Eclipse in March

By Tom Stephany

Dateline-Longyearbyen, Sprintsbergen 03/21/15 — This was one of the best eclipse chasing expeditions ever. Twenty-seven members of the Ring of Fire eclipse chasing team met as planned at the Oslo airport on March 18th. From there, we boarded a 90-minute flight to the Artic settlement of Longyearbyen. We landed soon after sunset at the single building airport, about the size of a large American bus stop. After a five-kilometer drive to the Mary-Ann Polarigg hotel, we arrived. We all knew ahead of time, with more than two years of planning, that the historical average weather for this remote location is 85% overcast. Regardless, the truly addicted eclipse chaser always ignores logic and takes the chance. The result of this trip surprised even the most seasoned eclipse chaser. A representative of the local weather station reported on March 19th that an extremely unusual forecast had been issued. It predicted a completely clear and dry day for March 20th. It was one of the best forecast for a March day in decades.

With the arrival of the 20th, the forecast proved to be accurate. While the ambient temperature at sunrise was a brisk 2 degrees Fahrenheit, the sky was completely clear of clouds for as far as the eye could see. By 9:00 a.m., we had mounted more than two dozen snowmobiles to drive a few miles out of the settlement to a beautiful ice flat area. Eclipse totality was due at 11:12 a.m. local, with an hour and a quarter lead-time for the first half. With the arrival of totality, all eyes lifted, the magic once again began.

Last witnessed by me more than two and a half years ago, and half a planet away, I am once again in a state of wonderment. Day almost instantly turns to night and what appears to be a black hole appears in the sky. Around this hole a halo like glow. With the arrival of this eclipse totality came an unusual group wide phenomena. Cameras and other electronics, including all three of my cameras, began to fail indicating dead batteries. The temperature dropped to -7 degrees Fahrenheit during totality. This is apparently about the range where modern electronics begin to fail. Only three members of our team managed to keep their cameras working. This



Mary-Ann Polarigg Hotel in Longyearbyen.



Total solar eclipse in March 2015. This was Tom's view from the arctic outpost.

Members Forum

Continued from page 8

didn't detract from the eclipse itself. Many on site later said it was the best they had ever witnessed. For me it is a tossup with the 2006 African event.

I returned home after another two days Longyearbyen, and almost a week in Oslo, Norway. I'll present more information about this experience and others at the SMCAS June 5th meeting, at the College of San Mateo, 8:00 p.m.



Wildlife and friendship in Longyearbyen...Left, a reindeer (the tan spot in the background and to the left of Tom) visits the Arctic outpost without Santa. Right, Tom and fellow eclipse chaser, Betsy, brave the elements, as they get ready to leave the hotel. All photos with this article courtesy of Tom Stephany.

Astronomy Myths

By Ed Periet

Days get longer in the summer and shorter in the winter.

This one seems true even to some pretty savvy astronomers as well as the general public. The truth is that, although days are longer in the summer they are getting shorter and days are shorter in the winter but are getting longer.

The first day of summer is the Summer Solstice, the longest day of the year. Days get shorter on each subsequent day throughout the summer and fall. The shortest day of the year is the Winter Solstice which is the first day of winter, and each subsequent day gets longer throughout winter and spring.

May Rise and Set Chart

| <i>SMCAS 2015 (PDT)</i> | | <u>May 16</u> | <u>May 16 Set</u> | <u>May 23</u> | <u>May 23 Set</u> |
|-------------------------|--------------------|---------------------------------------------------|-------------------|---------------|-------------------|
| | | <u>Rise</u> | | <u>Rise</u> | |
| Sun | | 5:58 AM | 8:12 PM | 5:53 AM | 8:18 PM |
| Moon | | 5:07 AM | 6:49 PM | 11:10 AM | 12:17 AM |
| Mercury | In the evening | 6:55 AM | 9:39 PM | 6:33 AM | 9:02 PM |
| Venus | In the evening | 8:44 AM | 11:46 PM | 8:53 AM | 11:48 PM |
| Mars | In the sun's glare | 6:25 AM | 8:49 PM | 6:15 AM | 8:46 PM |
| Jupiter | In the evening | 11:44 AM | 1:42 AM | 11:20 AM | 1:17 AM |
| Jupiter's moons | | c e i J | | e i Jg C | |
| 10 PM, East on left | | J=Jupiter, c=Callisto, e=Europa, g=Ganymede, i=Io | | | |
| Saturn | Opposition on 22nd | 8:29 PM | 6:39 AM | 7:59 PM | 6:10 AM |
| Uranus | Before sunrise | 4:20 AM | 5:05 PM | 3:53 AM | 4:39 PM |
| Neptune | In the wee hours | 2:44 AM | 1:54 PM | 2:16 AM | 1:27 PM |
| Pluto | Late at night | 11:40 PM | 9:35 AM | 11:12 PM | 9:07 AM |

- Star Parties are at Crestview on the 16th and 23rd.
- Jazz Under the Stars is at CSM on the 23rd.

- *Courtesy of Ron Cardinale*

Fundraising for the Group: SMCAS Participates in AmazonSmile and Receives a Percentage of Your Purchase

SMCAS is now enrolled in AmazonSmile, a program that enables certified 501(c)(3) non-profit organizations to receive donations from eligible purchases at Amazon.



To enroll in the program, go to smile.amazon.com. On your first visit to this site, you can select a charitable organization – San Mateo County Astronomical Society (SMCAS) – that will receive 0.5% of the purchase price of eligible items on Amazon. How will you know if an item is eligible? Items are clearly and literally marked on the product detail pages with “Eligible for AmazonSmile donation.” For more information, go to smile.amazon.com/about.

Marketplace

For Sale by Owner

Meade 12-inch Lightbridge Dobsonian telescope. As you can see, it spends most of its time indoors, and longs to be taken out on a dark night to look at the stars, planets, nebulae, galaxies, etc. Selling for a number of reasons. Including the wheelie-bar (originally \$340), an adjustable astronomer's seat (originally \$90,) the 12-inch Lightbridge (in perfect condition) and the 2-inch 5-element fully multicoated wide-angle 26 mm eyepiece it came with, plus I'm including the adapter to step-down for standard eyepiece size. Original cost over \$1600, will sell for \$950. I live in San Carlos. (See photos below).

Dave Wolf

dave-wolf141@comcast.net

[650-593-5675](tel:650-593-5675)



Telescope package for sale (see ad above).

Top left: The 12-inch diameter Lightbridge sits in my library reading science fiction. Lately it has focused more on mysteries, including the mystery of why it's been so long since I've taken it outdoors to look at the stars.

Top right: Wheelie-Bar (originally \$339) has convenient lockdown feet. The truss-tube scope breaks down for easy transport, lifting, storage. It reassembles quickly and easily.

Bottom left: The adjustable Astro-Stool folds flat for easy storage or transport. Adjusts to any position. Great for long nights of viewing. (Originally \$90.)

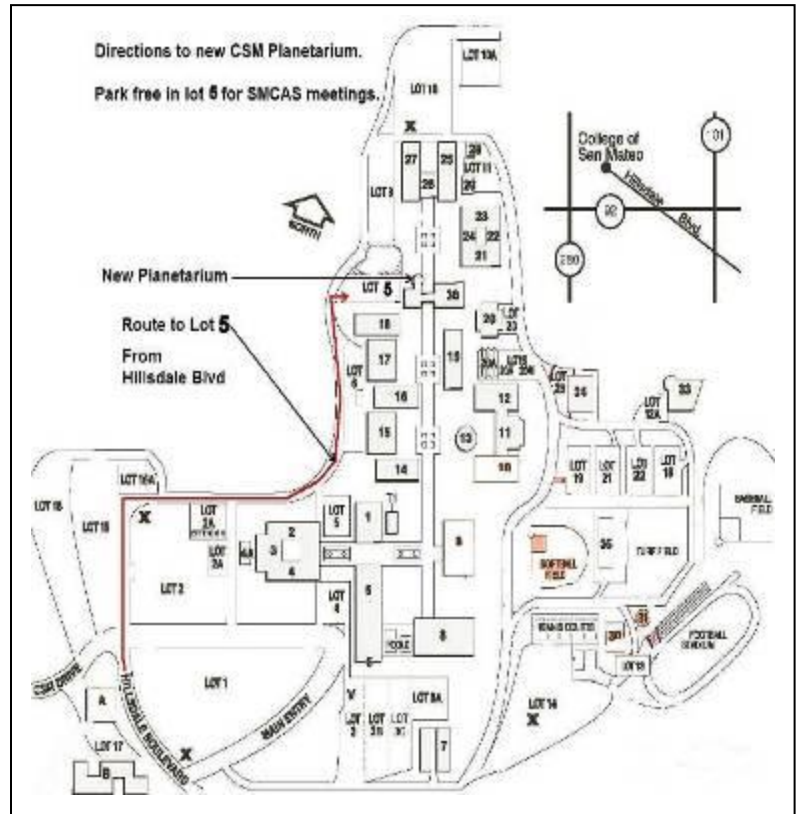
Bottom right: Eyepiece is 2-inch Meade QX wide angle 26 mm fully multi-coated 5 element lens, with an extension tube. I will include the **adaptor ring** for regular size eyepieces. Also see aiming device, a red-dot finder.

Directions to SMCAS Meetings at CSM, and to Star Parties

Star Parties are Free to Members and Visitors and are Held Regularly, Weather Permitting

Directions to the CSM Planetarium for Meetings

After exiting Hwy 92 at Hillsdale Blvd, climb the hill towards CSM, passing two traffic lights to the stop sign at the top. Continue straight, bear right then, after the 2nd stop sign, bear left over the rise. Enter the next parking lot on the right, called Lot 5, "Marie Curie". Science Bldg 36 and the planetarium lie straight ahead. Enter Bldg. 36 thru the door facing the lot, or



Crestview Park

Come on out, and bring the kids, for a mind-blowing look at the Universe!

Bring your binoculars, telescopes, star guides, and lounge chairs for some informal star gazing at Crestview Park.

Dress warmly and wear a hat. Only visitors with telescopes should drive in. Others should park on the street and walk in, or arrive before dark so that car headlights don't affect the observers' dark adaptation. Bring small flash-lights only, covered with red cellophane or red balloon.

These measures avoid safety issues of maneuvering in the dark, as well as ruining the night vision of the viewers.

Please don't touch a telescope without permission. And, parents, please don't let children run around in the dark.

Directions to Crestview Park for Star Parties

From Hwy 101 or El Camino, take Brittan Avenue in San Carlos, west (to the hills). Follow Brittan 2.3 miles (from El Camino) to Crestview Drive. Turn right on Crestview. In half-a-block, you will see a small blue posted sign with an arrow, indicating the entry road into Crestview Park. It lies between houses with addresses #998 and #1000 Crestview Drive.

From Highway 280, take Edgewood Road exit. Go east (toward the Bay) about 0.8 miles. Turn left at Crestview Drive. Go 0.5 mile uphill to where Crestview meets Brittan. Again, drive the half-block, to the sign on the right, and the entry road on the left.

Note: If bringing a telescope and arriving after dark, please enter the Park with your headlamps and white interior lights off. If you aren't bringing a telescope, whether before or after dark, please park along Crestview Drive, and walk in.

2nd Note: Crestview Park is residential, adjacent to homes and backyards. Before inviting potentially noisy groups, please call Ed Pieret at (650) 595-3691 for advice and advisories. Call Ed also to check the weather and 'sky clock', and to see whether the star party is still scheduled.

Membership Application and Society Information

To join the San Mateo County Astronomical Society or to renew membership, you can pay dues at any monthly meeting or sent your check, payable to SMCAS", to: **SMCAS, PO Box 974, Station A, San Mateo, CA, 94403.**

Dues are currently \$30 for a new (family) membership and renewing member and \$15 for a student membership.

Please check one of the following boxes: () New member () Membership renewal () Student () Address or info change

NOTE TO RENEWING MEMBERS: Please complete the following only for a change to your membership or contact info.

Name(s) _____

Address/City/Zip: _____

Phone(s) _____ Email _____

SMCAS – Society Information

Meetings of the San Mateo County Astronomical Society are held the **first Friday of the month (except in July and August)** in the Planetarium at the College of San Mateo, 1700 West Hillsdale Blvd. in San Mateo. Exit Hwy. 92 at West Hillsdale Blvd. and, proceed uphill through the second and third sets of traffic lights, to the first stop sign at the top of the hill. Continue straight, bearing right then, after the second stop sign, left up over a rise. After the third stop sign, enter the first parking lot on the right with a sign 'Lot 5, Marie Curie', identifying the top level plus those below.

Science Bldg. 36 adjoins the lot, with the geodesic planetarium dome to its left. Circle the planetarium, or enter Bldg 36 thru the door facing Lot 5. For the 4th floor observatory, use the elevator just inside on the right. The planetarium corridor is ahead on the left. Turn left at the restroom sign.

Officers: President: Marion Weiler; **Vice-President:** Ed Pieret; **Secretary:** Karen Boyer; **Treasurer:** Tom Stephany. **Board Directors-At-Large:** Bob Franklin, Ken Lum, Karen Zamel, Jeff Dye, Ali Emami. Andy Thanos.

Event Horizon Editor: Karen Zamel. **NOTE:** Newsletter is posted by the beginning of each month (except for July and August). Postings and photos are welcome by the 15th of the month before publication.

SMCAS Contact Information

Website: <http://www.smcas.com>.

The CSM Astronomy Department schedule is at www.collegeofsanmateo.edu/astronomy/events.

Email: SMCAS@live.com

Society Yahoo group: <http://groups.yahoo.com/group/smcas>.

Yahoo Group Subscription: email smcas-subscribe@yahoogroups.com telling your interest in title and body text.

Event Horizon: To offer articles or photos, please contact Editor Karen Zamel: karenzamel@gmail.com or (650) 814-3902.