

Vol. 54, No. 4 - APRIL 2006

April 19, 2006 - General Meeting

RANDALL MUSEUM. 199 MUSEUM WAY. SAN FRANCISCO 7:00 PM DOORS OPEN . 7:30 PM ANNOUNCEMENTS . 8:00 PM SPEAKER

Dr. Steven H. Stahler, Ph.D. Professor of Astronomy, UC Berkeley HOW STARS ARE MADE



On a clear night, the sky is filled with countless stars. These objects must be the natural outcome of processes that occur all the time, throughout our Galaxy and others. Indeed, images taken with radio and infrared telescopes show us new stars forming relatively nearby. The progenitor objects are large clouds permeating interstellar space. These clouds undergo gravitational collapse to form primitive stars, which then evolve to become mature objects like our own Sun. A large body of research, mostly undertaken within the past few decades, has led to a good understanding of the basic evolutionary process. Nevertheless, deep mysteries remain in this active and exciting field.

Dr. Steven Stahler is an astrophysicist at U. C. Berkeley. Raised in Maryland, he attended graduate school at Berkeley in physics. He was a professor at MIT before returning to the Bay Area in 1992. His

research centers on the problem of star formation, and he recently coauthored the first comprehensive textbook in the field ("The Formation of Stars," Stahler & Palla, Wiley-VCH, 2004).

Trained as a theoretical physicist, Steve especially delights in the esthetic aspect of his research, which he tries to convey in his numerous public talks.

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MEMBERSHIP DUES

Joe Amato

The mailing label on the back of this issue shows the month and year through which your membership was paid. If the date has passed, your membership has expired. Members may receive no more than one bulletin after the expiration of membership.

Please renew soon if your membership is expiring.

CLUB TELESCOPES

The SFAA owns 6 club loaner telescopes, Dobsonian/Newtonian reflectors: 6" f/10, 8" f/7, 8.5" f/6 and 10" f/8, a Starblast and a Meade 8" SCT. They are available for extended periods (30 days or more)



to SFAA members. These are generally very fine scopes, easy to use and well suited for deep sky, planets, and star parties. The loaner custodians are Pete & Sarah Goldie, located in San Francisco. If you are interested in borrowing a scope, or if you have items you can donate for the loaner program (eyepieces, star maps/books, collimator, etc.) please contact them via email (mailto:pg@lbin.com) or phone (415-206-9867). Email communication is preferred and strongly recommended for a quick and accurate reply.

CLUB ASTRONOMY VIDEOS

The SFAA owns a series of astronomy videotapes featuring Alex Filippenko, a world-renowned professor of astronomy at UC Berkeley. The



videotapes provide an introduction to astronomy and cover topics such as the Solar System, the lifecycles of stars, the nature of galaxies, and the birth of the Universe. The SFAA loans the tapes free to all members. If you are interested in viewing these tapes, you may check them out at any of the SFAA General Meetings. These tapes were kindly donated to the SFAA by Bert Katzung. Our librarian is Dan Christian.

For information on the course tapes themselves: http://www.teach12.com/ttc/assets/coursedescriptions/180.asp

ONLINE SERVICES FOR SFAA MEMBERS



Webmaster

The SFAA's Secretary's Web Site helps keep SFAA information together and accessible to members. The site URL is http://www.whiteoaks.com/sfaa/. At this site you can find such information as minutes from meetings of the Board of Directors, the SFAA official by-laws, and other information. SFAA also offers email lists to supplement the bulletin board offered at the SFAA's official web site. At present there are two email lists – an unmoderated list for use primarily for business and discussion by the Board of Directors (but open to all members), and a moderated announcement list for all SFAA members. If you would like to be added to the

SFAA-announce email list, please contact the secretary (secretary@sfaa-astronomy.org) and let him know. You can also sign up for the list yourself at this URL: http://www.whiteoaks.com/mailman/listinfo/sfaa-announce

Above the Fog is the official bulletin of the San Francisco Amateur Astronomers. It is the forum in which club members may share their experiences, ideas, and observations. We encourage you to participate by submitting your articles, announcements, letters, photos and drawings. We would also like to hear from our new members. Tell us about yourself – what you have done in the past and what other clubs you have joined. The deadline for the next issue is the 20th day of the month. Send your articles to Phil Estrin at pestrin@dir.ca.gov.

THROUGH THE FINDER ...

It's been a long dry (as in "wet") spell for observers this winter. As I write this, it looks as if the rains may finally tire a bit and give us a chance at our Messier Marathon all-nighter on Mt. Tam. I hope by the time you read this the observing was under clear skies and the Marathon was not messy (eh?) - but I will have missed it. I'm not complaining, mind you, because at the moment I'm in the midst of packing my bags, and my mind is halfway across the Atlantic heading for Turkey and a total eclipse of the sun. And I won't be the only SFAA'er making this pilgrimage to stand in the shadow of the moon. At least four other members will be among the throngs witnessing this most sublime of astronomical events. Some will be in Turkey, others in Egypt, others maybe in Libya. For me, the thrill will be amplified by experiencing it amid ancient ruins where eclipses were first understood to be natural and predictable phenomena, with rational geometric explanations - where Astronomy began; where Science began. Hipparchus, Aristarchus, Apollonius, Ptolemy will be nearby, and looking up!

If all goes well and the clouds cooperate there will be a gaggle of us ganderers returning to SFAA member's meetings with stories to share (some of which may be true) and photos to show (whether you want to see them or not). Please be understanding. For those who've yet to experience a solar eclipse, words won't be enough.

Hope someday to see you-all in the [mid-day] dark,

John Dillon, President, SFAA

THE EDWINA CHERRINGTON MEMORIAL FUND

The SFAA Board of Directors has established an Edwina Cherrington Memorial Fund to honor the memory of Edwina Cherrington, the energetic and enthusiastic supporter of the SFAA, recipient of the Herman Fast Award, and wife of Past President, Bill Cherrington. Donations to the Fund will be used to purchase astronomical equipment for use in educational programs for children and families at the Randall Museum.

Checks should be made out to "SFAA" with a memo reference to the

Edwina Cherrington Fund

and mailed to:

SFAA, POB 15097, San Francisco CA 94115



NEW SFAA MEMBERS

Scope City is offering to new members a \$25 credit toward the purchase of telescopes and binoculars. Obtain a receipt for dues payment from Stephanie Ulrey, Treasurer,

treasurer@sfaa-astronomy.org.

Contact Sam Sweiss at Scope City to arrange for your discount.

IMPORTANT UPCOMING DATES

SFAA General Meetings & Lectures

Board Meetings

Wednesday, April 19
Wednesday, May 17
Wednesday, June 21
7:00 p.m. Doors open . 7:30 p.m. Announcements . 8:00 p.m. Speaker
Randall Museum, 199 Museum Way (Near 14th Street and Roosevelt)

Tuesday, April 11
Tuesday, May 9
Tuesday, June 13
7:00-8:30 p.m.

Randall Museum, 199 Museum Way
(Near 14th Street and Roosevelt)

Special Events

Saturday, May 6 – 10:30 a.m. – ASTRONOMY DAY AT CAL ACADEMY 7:00 P.M. – ASTRONOMY NIGHT AT THE RANDALL MUSEUM May 19 – 7:00 p.m. – FPOA NIGHT – FREMONT PEAK – MEMBERS ONLY

Mt Tam Star Parties - Special Use Permit - Members Only

Saturday, March 25 – 6:30 p.m. (Messier Madness) Saturday, April 22 – 6:00 p.m. Saturday, May 27 – 7:00 p.m. Saturday, June 24, - 8:30 p.m.

City Star Parties

Saturday, April 8, 7:30 p.m. – Telescope Clinic one hour before sunset Saturday, May 6, 7:00 p.m. – ASTRONOMY NIGHT AT THE RANDALL MUSEUM Saturday, June 17, 8:30 p.m. . – Telescope Clinic one hour before sunset

Weather may cancel the City Star Party. Call the SFAA Hotline at (415) 289-6636 AFTER 4 PM to learn the status of the event and the location. If the hotline announces the Star Party is cancelled, the Telescope Clinic and Lecture are cancelled as well. However, if the Hotline does not cancel the Star Party, be assured that the Lecture will proceed as scheduled even given less-than-perfect telescope conditions.

Please also note that, while City Star Parties WILL ALWAYS be held on Saturdays, some will be closer to the last quarter phase of the moon, while others will be close to first quarter. This is so we can work around dates for Mt. Tam public star parties as well as our members only events on Mt. Tam.

Map and directions http://www.sfaa-astronomy.org/sfaa/starparties/cspmap.shtml

Upcoming General Meeting Guest Speakers

Wednesday, May 17

Dr. Lynn Rothschild, Research Scientist, NASA Ames Research Center

Extremeophiles and the Search for Life in the Solar System

Wednesday, June 21

Dr. Elliot Quataert, Associate Professor of Astronomy, UC Berkeley

Black Holes: The Science Behind the Science Fiction

A WHOLE BUNCH OF SPARKS

Kenneth Frank

"What's this all about?" you may ask. It's about encouraging young kids to believe in themselves and to grab a telescope to learn about and observe the night sky. The Astronomical Association of Northern California (AANC), over the course of last year's board meetings, grappled with its mission statement with an eye toward channeling enthusiasm for astronomy into something viable. I can't think of a better place to focus our energies than in an interest called STRIKING SPARKS. June and Bob Ferguson wanted to encourage youth of the Sonoma County community and strike a spark of encouragement to pique interest and enthusiasm of students about the sciences.

This all started in the 1970's. Bob took John Dobson's telescope-making class at the San Francisco Academy of Sciences and built a 16-inch from John's stash of porthole glass, thereby joining the legions of sidewalk astronomers. He concentrated on involving students, parents and teachers from local schools. With the help of Larry McCune and other dedicated members of the Sonoma County Astronomical Society (SCAS) and by settling on a 5.5-inch, f/8 design, more portable versions for kids were built. SCAS helped facilitate the STRIKING SPARKS idea, inspiring members to share their knowledge and love of the night sky.

Last year, the landmark 200th telescope was made by hand and awarded to Proctor Terrace Elementary School in Santa Rosa. This year, the AANC was fortunate enough to be able to sponsor a telescope for an aspiring 11 year old, Rocio Linares. We shared a meal with her proud family, including her sleepy three year, two month old brother held in the arms of her very patient father, Julio. And speaking of eating, we brought dessert – Brown Dwarfs made of dark fudge. That paled in comparison to the Boef Bourguignon a contributor brought for the pot luck coordinated by Rita Stern, assisted by Jayni Allsep. Rita's husband is, by the way, Al Stern, former president of the San Francisco Amateur Astronomers and mentor of mine. Al has been involved for years at Stellafane, runs portable planetarium programs for schools, and is mentoring Erica Yee, a STRIKING SPARKS telescope winner.

These telescopes are now made by Orion. Sam Sweiss of Scope City in San Francisco facilitated the purchase of the ten Dobsonians from Orion's forward-thinking Pat Gilles and Ken Sablinsky. Sam also donated the majority of the items for the raffle held to sponsor yet more telescopes for next year.

Robert H. Ferguson is no longer with us, but his vision for inspiring young students of Sonoma County lives on through the dedication of Sonoma County Astronomical Society members and sponsoring organizations like the Astronomical Association of Northern California.

Kenneth Frank is vice-president of AANC and San Francisco Amateur Astronomers. He assists John Dobson with telescope-making classes at the Randall Museum in San Francisco.

SATURDAY, MAY 6 Celebrate Astronomy Day at the California Academy of Sciences MEET SCIENTISTS FROM NASA, SETI, AND MORE

It's the oldest science in human history, and on Saturday, May 6, visitors at the California Academy of Sciences can explore the latest breakthroughs and techniques during ASTRONOMY DAY 2006. Begun in 1973 by local astronomer Doug Berger, ASTRONOMY DAY gives institutions across the country the chance to host observing sessions, demonstrations, displays, and hands-on activities for the public. Professional and amateur astronomers join forces to educate visitors about the heavens and to share their enthusiasm about the wonders of our Universe.

The California Academy of Sciences will present a full day of astronomy-related events, including a talk by Jill Tarter of the SETI Institute about the ongoing search for extra-terrestrial intelligence, a presentation by science historian, John Dillon, about the first telescope ever made, and the chance to observe the sun safely if weather permits. In addition, members of the San Francisco Amateur Astronomers, the Astronomical Society of the Pacific, and NASA will be available for questions and hands-on activities. And be sure to enter a raffle for various astronomy-related goods, or pick up free materials courtesy of Astronomy magazine. All programs are free with museum admission.

For those who can't wait for ASTRONOMY DAY, visit www.calacademy.org/planetarium to download Sky Tour, a free audio tour of the night sky presented by the California Academy of Sciences and the Environmental News Network; or sign up for a stargazing session at the San Francisco Botanical Garden this spring:

STARGAZING WITH ACADEMY ASTRONOMER BING QUOCK FRIDAYS, APRIL 28 AND MAY 26 FROM 8:30 - 10 PM

Join Bing Quock of the California Academy of Sciences' Morrison Planetarium for night-sky viewing sessions on the beautiful grounds of the San Francisco Botanical Garden in Golden Gate Park, including a laser-guided tour of the heavens and a deeper exploration with binoculars and a telescope. Dress warmly, bring a quality pair of binoculars (if you have them), a red-colored flashlight to preserve your night-vision, and your curiosity about the night sky! Class is cancelled in the event of cloudy weather. Classes cost \$12 per person or \$18 per family (\$8 per person or \$13 per family for Academy members). For more information, call (415) 661-1316 x354.

MESSIER MARATHON - AND CHARLES TOO!



"Should we go or shouldn't we?" was the Question of the Messier Rainy Day. Clear skies after 5:00 p.m. were forecast, with a possible night-long break between storm systems. "Onward to the mountain!" was the spirit that prevailed for about ten enthusiastic SFAA Messier marathoners.

At 6:30 p.m., Michael Portuesi's digital thermometer read 49 damp degrees, with wind gusts at about 15 mph. With hats donned and gloves insulating heat packs and our hands, we attuned ourselves to the stars as they began to appear.



SFAA's very own Messier of the day, Kenneth Frank

And speaking of appearing, lo and behold, who did arrive in our midst but none other than Charles Messier! sharing lasagna (la-san-yay???) with all, and delivering, in both French and English, his greetings --

Mesdames et messieurs les Astronomes,

Moi, Charles Messier, grand découvreur de comètes, vous souhaite la bienvenue dans ce "lieu magique".

Ce soir,
vous allez montrer,
à vous-même, et au monde entier
votre acuité visuelle
en réalisant la prouesse
de trouver tous ces objets
dont je n'avais pas prévu la gloire.

Bonne chance pour trouver ces nebulosités, puissent-elles etre er ou nuageuses.

Je vous souhaite la chance de continuer à les observer pendant encore quatre siècles.

Que le marathon commence!

Ladies and Gentlemen Astronomers,

I, Charles Messier, discoverer of comets, welcome you to this proving ground.

This evening you will show to yourself and the world, your visual acuity and prowess, in finding the objects I didn't want to be known for.

I wish you four centuries worth of luck tonight, in seeking your goal.

Good luck under the nebula, (may they be real or wet from the Sacific)

Let the Marathon begin!

And so did the marathon begin. Or should I say "and so did the 'competition' begin" - large clouds and eventual patches of fog versus the night sky (I've never seen the stars "switch off and on" quite like that before!), and gusts of wind gradually increasing to about 25 mph versus the telescope equipment and the stalwarts of the night in their cold-weather attire. With the windblown pages of Harvard Pennington's Messier Marathon Field Guide becoming more damp and limp but still speeding us along, we set our sites on M74 & Pices / M77 & Cetus / M31, M110, M32, M33, M34, M76 & Andromeda / M79 & Lepus / M42, M43, M78 & Orion / M50, M47, M46, M41, M93 & Canis Major / M52, M103 & Cassiopeia / M1, M45 (The Pleiades) & Taurus / M36, 37, M38 & Auriga. Then, at 9:30, Mother Nature drew her curtain of fog over our slowly-revolving stage of stars and gently prodded us from our 39-degree, breezy "theater" into the warmth of our cars and on to Happy with what we were able to home. accomplish, yet undeniably wishing for more, we departed with the hope that next year the curtain

on our performance of the stars will open to an all-night affair. And with a year of stargazing as preparation between now and then, we just might locate all 110 objects in that one night.

My thanks and appreciation to Michael Portuesi and Kenneth Frank, on the occasion of my first Messier Marathon event, for their extra efforts in providing this privileged novice amateur astronomer with Messier Marathon learning tools, for teaching me how to prepare for a star party, for validating my excitement and enthusiasm in the days preceding the marathon, for helping me learn the night sky and more about telescopes, for making a cold, weathery event a lot of fun and for actually leaving me happily looking forward to more cold star parties, more learning and skill development and, eventually, my own powerful telescope coupled with the ability to share with others the beauty and wonder of what I have been taught. Annette Gabrielli

OBSERVING THE "M" OBJECTS: 2006 REPORT - MARCH 25/APRIL 1, 2006

Jane Houston Jones and Morris Jones

More photos available here



Left: The sky was gorgeous but ominous for our first Messier weekend session. Photo by Morris Jones

Right: Jane and Mojo setting up at "Ocotillo Flats" for their second Messier Marathon effort.

Lower right: Doing a Messier Marathon means spending a lot of time on your knees. Here's Jane trying to dig out one of the early evening Messier objects about to set.



When the sky is clear, and we're not out on the sidewalk showing the first quarter Moon or planets to our regular audiences, we pack the telescopes and get out of

town. There are no dark skies anywhere near Los Angeles, and after months of in-town observing, we yearn for the Milky Way, dark clear skies, and a chance to observe objects in our galaxy and beyond.

We like to travel to a great location about 150 miles east of our Monrovia home. It's a nice spot in the eastern Colorado Desert just off Interstate 10 between Indio and Blythe, CA.



Each year, some amateur astronomers participate in an annual homage to the objects discovered by 18th century comet hunter <u>Charles Messier</u>. The Messier Marathon is a one-night attempt to find as many of the 110 <u>Messier objects</u> as possible. These objects, mostly star clusters, nebulae, and galaxies, are not evenly distributed in the celestial sphere. There are regions in the sky heavily crowded with M objects, especially the Virgo Cluster and the region around the center of our own galaxy, the Milky Way. For those of us in mid-northern latitudes, all 110 Messier objects are observable during one night in March when the Moon is near its new phase. This year March 25/26th was the best weekend for the marathon.

March 25-26, 2006

We arrived at our destination an hour before dusk, and by 7:00 p.m. with telescopes aimed nearly at the western horizon, we were trying to nail the first Messier objects, faint galaxies which set early. We were beseiged by clouds near the horizons. We soldiered on, missing only one of the first dozen objects, M77, a beautiful spiral galaxy, due to clouds. There were still 109 challenges ahead. By 8 p.m. we had seen the dozen first sunset objects, and took a break.

At 10:30 p.m., we were done with all the evening objects and had a few hours to wait for the Earth to rotate and for the summer milky way objects to begin to appear. We had observed 70 of the 110 objects, and took a three-hour nap. After 2 a.m. there is a mad rush to get the final thirty objects before dawn. The rising crescent Moon

and bright Venus also graced the morning skies. We missed five of the last objects due to clouds, but were happy with our final tally of 104 objects.

April 1-2, 2006

The weekend was fast approaching, and with it, a four-day old crescent Moon would brighten the sky. The weather looked to be much better in the desert than at home, so we decided to try another marathon, this time armed with a few extra charts for the most difficult objects. In addition, I thought it would be fun to observe the Messiers on the Moon — the craters named in honor of Charles Messier are among my favorite lunar targets. While waiting for the sky to darken I used my favorite Moon reference Hitchhikers Guide to the Moon, which is based on Antonin Rukl's *Atlas of the Moon*, and checked off 90 craters, lakes, seas, rilles, oceans, mountains, bays visible on the slim four-day old crescent Moon.

As soon as the first stars were visible, we lowered the big telescopes nearly to the western horizon in search of the challenging galaxies. This time, we found M77, but failed to get the other early evening galaxy, spiral galaxy M74 in Pisces, one of the 20 faintest of the total list. Oh well. But we were successful with the next 109 objects.

In between the Messier Marathon, we also observed Mars, Jupiter, Saturn and Venus, and 8 moons of Saturn, the 4 Galilean moons of Jupiter, and two comets. Added to the 90 lunar features, this brought my total to 109 additional observations.

Observing in the desert

The dry high altitude desert air is great for observing. We always bring plenty of water, and take frequent breaks. After every observation, we remembered to have a sip of water to keep from getting dehydrated. We also bring a trash bag which stays in the car, and bring all our garbage back with us, leaving nothing behind. We also bring plenty of layers of clothing. It was 70 degrees at sunset, and 38 degrees at dawn.

The Messier Marathon is not the best way to see these splendid objects. For example, the great Andromeda Galaxy, M31, is best viewed in the fall, when it is higher in the sky. Seeing it as it sets against the sunset haze in March shows a faint glow, if you are lucky. It reminds me of the view we have of our own sweethearts first thing in the morning. We know they are beautiful, but we also know they'll look a lot better after they've been up a while.

Observing from Chuckwalla Bench, CA Latitude 33 N Longitude 115 W Telescopes:

March 25-26, 2006 17.5 and 14.5 inch <u>LITEBOX</u> reflectors at 100 power and 80mm refractor at 25x

April 1-2, 2006 12.5 inch and 14.5 inch LITEBOX reflectors also 100 power

Conditions: March 25/26 some clouds

April 1/2 excellent
Temps: 70 degrees at sunset
38 degrees at dawn



This is actually a morning shot, dawn after our first Messier run and an hour's sleep. This sky shows the layer of clouds that rolled in for the final hours of observing, wiping out the morning twilight objects.

103 Messier's bagged out of 110

ANNUAL SFAA NIGHT Fremont Peak Observatory

May 19 and 20, 2006



Photo star trails, courtesy of Art Rosch

Are you photon deprived from the weather we're having? You may be a candidate for an evening with a very large telescope. SFAAer's can get recharged at Fremont Peak on May 19th and 20th. We have reserved the Observatory Friday evening for an exclusive private gathering of members from the SFAA, as we've done the previous years.

The Fremont Peak Observatory features a fine 30-inch f/4.8 Newtonian telescope built by Kevin Medlock of the Eastbay Astronomical Society. The telescope is mounted on an English cross-axis equatorial system. There are also powered observing pads outside the observatory, where visiting astronomers (like Richard Crisp) can set up to observe in Fremont Peak's dark skies.

From March through October, Fremont Peak Observatory conducts programs for the public at least three Saturday evenings a month, excluding the Saturday closest to full moon. FPOA's annual StarBQ is August 26th. It'll be a blast! This is their 20th year anniversary, and the AANC will present their annual awards, too.

Fremont Peak State Park is about 100 miles south of San Francisco, and 11 miles southeast of the town of San Juan Bautista. The park features camping facilities which are available either by reservation or first come first served basis. Please be sure to pay the day fee or, if camping, the overnight fee in the green box by the public phone. At the bottom of the hill in San Juan Bautista is the San Juan Inn for those who would like more civilized overnight amenities.

Pat Donnelly, President of FPOA, noted that Fremont Peak, being popular as a historical stopping place, is also mentioned on page 50 of AAA's Via Magazine May/June 2005 issue! If you'd like to help in maintaining the observatory, there are work parties occasionally. If you're interested, contact Pat via: KUNGFUGINA at aol dot com.

For SFAA members wanting to enjoy this gorgeous telescope on their own, practically whenever they choose (with a few exceptions), and if you're interested in joining FPOA and becoming qualified to use the telescope, contact Ron Dammann, Director of Instruments at FPOA. For more information about Fremont Peak Observatory, including excellent directions, visit their web site at http://www.fpoa.net

The FPOA website now has weather cam for those of you who are rightly paranoid of our unseasonable weather.

<u>Here</u> are a few pix of our day and night on the Peak last year. Looking forward to seeing you this year,



Photo of a stargazer, courtesy of Art Rosch

Ken



panshot courtesy of Mojo

SFAA Yosemite Star Party at Glacier Point Friday - July 14 and Saturday - July 15, 2006

The annual Yosemite star party will be held at Glacier Point, hosted by the National Park Service (NPS).

Rustic camping is located at the Bridalveil Creek campground group site. There is room for several tents. Cold running water is convenient but sans showers. The camp is 8.5 miles away from Glacier Point.

For those of you unfamiliar with this event, we are given free reserved admission and camping space. In exchange, we do two public star parties at Glacier Point, on Friday and Saturday night. We'll have the public (about 200 - 300 people) from twilight for a few hours, and then the rest of the night (and all day) to ourselves; this is a mighty good deal, considering how some folks come 12,000 miles to see these rocks. We take a maximum of 30 SFAA members. Please do not ask if your friends can come ... unless they are SFAA members. You are expected to have at least one public telescope for every two people. Check http://www.wrh.noaa.gov/total-forecast/printable-forecast.php?wfo=hnx&zone=caz096&county=cac043 for up-to-date info on Yosemite Park current weather and conditions. http://yosemite.org/vryos/sentinelcam.htm provides a live cam from Sentinel Dome.

You will be sent an entrance fee waiver that you will need to present to the ranger at the park entrance. You may be asked to show the ranger your telescope.

A note for non-members and those not making the list: Yosemite is your national park, and you may come if you arrange your own accommodations. In this case, you would be welcome to join us at Glacier Point for the public star party and the observing afterward; however, you would not be obligated to set up for the public.

If you decide for some reason you can't come, please let Ken Frank know as soon as possible so others may fill your campsite. Those on the wait list will thank you for your consideration.

Observing site- The observing area is mostly open, with good views from about NNW to the east, around to due south. The horizon from south around to the west is partly to mostly blocked by tall trees. Still, there's a lot of open sky, and typically, the seeing and transparency are excellent. It's warm (70 to 90) during the day, and cool to chilly (40) at night, due to the elevation of 7200 feet.

Star Party- One of the rangers does a sunset talk, and then delivers the crowd to us. Following that, a member of the club will give an evening talk. Some of the public will have white flashlights, and we need to be tolerant of that. We'll have club members with red brake light tape to cover the offending flashlights. Expect lots of questions from the public. We will supply an object list with corresponding finder charts and some brief information.

Now here's the really fun part: By around 9:30 or so, we'll have the place to ourselves, and can stay until dawn. Scopes must be removed when we quit, then set up again on Saturday. Some of us may set up Sun scopes during the afternoon, show Half Dome, and invite people to come again after sunset.

Gastronomic Astronomic- Early Saturday eve is traditionally pot luck and is always fun. Please provide enough for \sim say 4 or 5. Salads, main course, pu pu's and desserts are all welcome. Let's try again for the best astronomical theme of incredible edibles as we did for last years desserts at our place for the SFAA Star B Q. Prizes will be awarded!

Please remember this repast takes time so it's better to start our own gastronomic party early so there's no need to rush for set up Saturday evening on Glacier Point. Sunset this year will be 8:21 pm.

If you'd like to attend and are a current dues paying member, send an e-mail to kennethfrank at planitarium.net with "Yosemite Reservation" in the subject line; in the text body: your name(s), number of people, type & size of scope(s).

MT TAM ASTRONOMY PROGRAMS

Mt. Tamalpais State Park MOUNTAIN THEATER EXPLORE THE WONDERS OF THE UNIVERSE

On the Saturdays between the new and first quarter moons through September 23, we will enjoy a lecture in the Mountain Theater followed by viewing through telescopes. A complete list of the programs with dates and times can be found at the MTIA website: www.mttam.net. Check it out and plan now to come and join us.

We are always looking for volunteers to help our programs run smoothly. You can park cars, set out lanterns, greet the public, etc., and still enjoy the programs and the star party. But to do so, you must be a VIP (Volunteer in the Park, also Very Important Person) which means a one time, two-hour session with a park ranger. If you can help us out at any of the programs this year, please join us. Let me know by return e-mail or by calling me at 415-454-4715. If you are willing to help later in the season, we may be arranging another orientation around June or so.

I look forward to seeing you on The Mountain this year. Please share this information with anyone interested.

Tinka Ross, volunteer coordinator, Mt Tam Astronomy Programs

2006 SPEAKERS

April 29	Dr. Dale Cruikshank	"Small Worlds in the Distant Solar System"
8:30 pm	NASA-Ames	We are in the midst of exploring small objects with giant telescopes and with
	Research Center	spacecraft, such as Cassini now visiting Saturn and New Horizons on route to
		Pluto.
June 3	Seth Shostak	"The Latest Skinny on SETI"
8:30pm	SETI Institute	Despite more than four decades of searching, astronomers have heard nothing. Is
		this a quixotic mission, or could there soon be proof that someone is out there?
		What are the latest efforts to find someone in space who's at least as clever as you
		are?
July I	Dr. Lynn Cominsky	"A 'Swift' View of the Universe"
8:30 pm	Sonoma State University	NASA's Swift mission studies gamma-ray bursts, the most powerful explosions in
		the Universe. Learn how black holes are created when stars die, and how one
		galactic neutron starquake changed our Earth's atmosphere.
July 29	Dr. Eugene Chiang	"The Tenth Planet and Beyond"
8:30 pm	UC Berkeley	Since 1992, astronomers have discovered over 1000 icy, rocky objects beyond
		Neptune, one larger than Pluto. What is known about this "Kuiper Belt" of bodies
		and what are the implications for the formation of our planetary system?
August 26	John Dillon	"Ancient Astronomy, the First Science"
8:30 pm	Randall Museum	The pinnacle of ancient Greek science was the amazingly sophisticated astronomy
		developed more than 2000 years ago at the legendary Museum of Alexandria.
September 23	Dr. Chris McKay	"Latest results from the Huygens' Mission to Titan"
8:00pm	NASA-Ames	Last year the Huygens Probe landed successfully on Titan, the largest moon of
	Research Center	Saturn. What we saw was not what we expected. Hear the latest results from the
		analysis of the data from the Probe.

Founded in September 1952, the San Francisco Amateur Astronomers (SFAA) is an association of people who share a common interest in astronomy and other related sciences. Our membership consists of people from all walks of life, educational backgrounds and ages. Many SFAA members own their own telescopes; some have been made by hand in local telescope-making classes and vary in size from 6 to 25 inches.

Treasurer, SFAA, POB 15097, San Francisco CA 94115

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