

★ ABOVE THE FOG

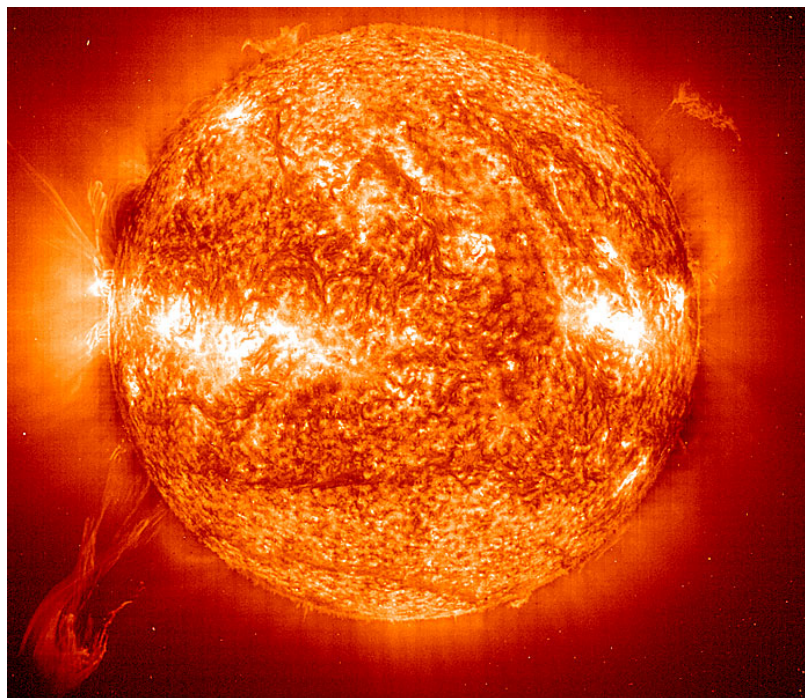
• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

Vol. 56, No. 6 - June 2008

June 18, 2008 - General Meeting

Randall Museum . 199 Museum Way . San Francisco
7:00 pm Doors Open . 7:30 pm Announcements . 8:00 pm Speaker

DR. JANET G. LUHMANN
Space Sciences Laboratory, UC Berkeley



SPACE WEATHER

We often don't think much about what's going on around us in near-Earth space. But our technological society's use of that space for satellites with both commercial and strategic purposes, as well as NASA's space station and scientific spacecraft, have now made 'space weather' accessible information with prospects for forecasting. While we are in a relative lull as far as space weather storms are concerned, this summer the solar cycle is expected to start its climb into its next active phase. We take a look at what is in store for us over the next 5 or so years. It will be an unprecedented time to watch this spectacle

of nature, and thus to appreciate what is behind the media reports when the Sun reminds us it is a variable star, and that we are living in its atmosphere!

Dr. Janet G. Luhmann is a member of the Space Physics Research Group at the Space Sciences Laboratory at the University of California, Berkeley, where she is a Senior Fellow. A major focus of her work has been the comparison of spacecraft observations with models of the solar wind interaction with the planets. She is currently Principal Investigator for an experiment consortium providing particle and field measurements for NASA's STEREO (Solar TERrestrial RELations Observatory) mission.

PRESIDENT'S COLUMN

Summer time is star party time. I just returned from our annual SFAA night at Fremont Peak Observatory. It was my first time at FP, and I have to admit that the views through the 30" telescope were definitely worth the trip.



The Presidential tent at Fremont Peak Valley View campground

Seeing was ok with quite a bit of fog rolling over the hills and into the valleys all night long. It took us a while to run through the star alignment procedure for the 30" beast, but locating objects worked quite well after we got the scope aligned.

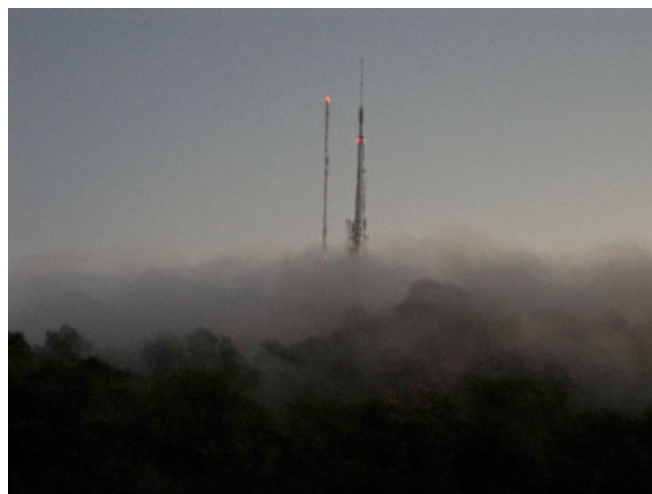


Ken Frank at eyepiece level – 8ft above the ground – illuminated by a quarter Moon

We had some spectacular views of the Moon during the early part of the evening and spent the rest of the night with some fine Messier objects. M57 (the Ring Nebula) was our first as it is

located near Vega, our second alignment star. We stayed a bit longer in the eastern part of the sky looking at M13 (the Great Hercules Cluster) and M92 (another pretty globular cluster in Hercules). We then moved on to M104 (the Sombrero Galaxy in Virgo), my favorite for the night. After that we turned the big telescope all the way from south to north to find M51 (the Whirlpool Galaxy), which was a bit tricky at first; but we finally succeeded with one person watching the tracking of the digital setting circles on the computer screen (mind you, this telescope does not have a GOTO button!) and two people looking through separate finderscopes to guide the star hopping. You will remember from our discussion in last month's President's Column that M51 owes its peculiar shape to the close encounter between a larger spiral galaxy, M51 or NGC 5194, and a smaller companion, NGC 5195.

Around 1am, the fog rose higher and higher and we decided to "pack up", which requires three to four people and a good half hour of time, right before the fog would creep into the observatory.



The fog rolling in above Fremont Peak creating an eerie scene

I had to leave Fremont Peak on Saturday morning and couldn't stay for the second night but just this one night of observing and the great atmosphere in the campground was a terrific experience. Many thanks to Ken Frank for organizing and hosting the SFAA night at FP Observatory.

DIRK LAMMERTS
PRESIDENT

2008 CLUB OFFICERS & CONTACTS

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	Lon Carter	lon@sfaa-astronomy.org
<i>Webmaster</i>	Joe Amato	Web-master@sfaa-astronomy.net

CLUB TELESCOPES

The SFAA owns eight very fine, easy to use, loaner telescopes well-suited for deep sky, planets, and star parties. All scopes are available to any SFAA member. The loaner custodians for the majority of our fleet are Pete & Sarah Goldie. Please contact them at telescopes@sfaa-astronomy.org for details if you are interested in borrowing a scope or if you have items you can donate for the loaner program (eyepieces, star maps/books, red flashlights, collimator, etc.). Please contact the appropriate member indicated below if you are interested in borrowing one of the telescopes.



- 1) 6" f/10.3 Dobsonian/Ken Frank ken@sfaa-astronomy.org
- 2) 8" f/7 Dobsonian/Pete Goldie
- 3) 8.5" f/6 Dobsonian/Pete Goldie
- 4) 10" f/8 Dobsonian/Pete Goldie
- 5) 114mm f/4 Newtonian StarBlast/Pete Goldie
- 6) 8" f/10 Celestron SCT/Annette Gabrielli/ annette@sfaa-astronomy.org
- 7) 8" f/10 Meade SCT/Stefanie Ulrey/treasurer@sfaa-astronomy.org
- 8) 9.5" f/5.6 Celestron Newtonian/Ken Frank/ ken@sfaa-astronomy.org

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. For information on the course tapes themselves:



<http://www.teach12.com/ttc/assets/coursedescriptions/180.asp>

MEMBERSHIP DUES

Membership is billed for each upcoming year on June 30. Members may receive no more than one bulletin after the expiration of membership.

SFAA Website and Online Services



The SFAA web site at sfaa-astronomy.org is provided to our members and the general public for the sharing of club information and services. The web site contains links for club [star parties](#), [events](#), [newsletters](#), [lectures](#) and [meetings](#). If you wish to interact with other people who are interested in astronomy, the SFAA web site offers public and members only [bulletin board forums](#). If you wish to remain up-to-date on club activities, then we encourage you to subscribe to one or both of our public [mailing lists](#), which will allow you to receive our newsletter and/or club announcements via email. Other useful and interesting information and services are available on the site such as [observing location reviews](#), member [astronomy photos](#), and [members only telescope loans](#). Information about SFAA's membership, organization and by-laws

are available at the club's online public document [archive](#). If you need to contact a representative of the SFAA, then please visit our [contacts](#) page to help in finding the right person to answer your questions.

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 Editor@sfaa-astronomy.org.

IMPORTANT DATES

SFAA GENERAL MEETINGS & LECTURES

Wednesdays

June 18

July 16

August 20

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)

BOARD MEETINGS

Tuesdays

June 10

July 8

August 12

7:00-8:30 p.m.

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

MT TAM STAR PARTIES – SPECIAL USE PERMIT – MEMBERS ONLY

Special Use Permit observing nights on Mount Tamalpais are private and open *only* to SFAA members. Please arrive by sunset (times listed below). A permit is required for each car. We must vacate the mountain by 2 am except on specially approved nights (such as Messier Marathon).

SATURDAYS

(No New Moon weekend in June)

July 5 – 8:35 p.m. **GATEKEEPERS NEEDED**

August 9 – 8:09 p.m. **GATEKEEPERS NEEDED**

CITY STAR PARTIES - TELESCOPE CLINIC ONE HOUR BEFORE SUNSET

Saturday, June 21, 11:30 a.m. at the Randall Museum – Speaker: Michael Portuesi – “Solstice and Sundials”

Saturday, July 26, 8:23 p.m. at Land’s End (Point Lobos)

Saturday, August 23, 7:51 p.m. at Land’s End (Point Lobos)

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 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 – Land’s End (Pt. Lobos) <http://www.sfaa-astronomy.org/clubarchive/directions-pointlobos.php>

MT TAM PUBLIC STAR PARTIES

Public nights on Mount Tamalpais start with a lecture in the Mountain Theatre, followed by public viewing in the Rock Springs parking lot. SFAA members may view privately after crowd departs, approx. 11 pm-2 am. For more

information go here: <http://www.sfaa-astronomy.org/starparties/>

VOLUNTEER GATEKEEPERS ARE ALWAYS NEEDED

May 10 – 8:09 p.m.



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

Vivian White, Treasurer,

treasurer@sfaa-astronomy.org.

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

2008 San Francisco Amateur Astronomers Lecture Series

Free & Open to the Public sfaa-astronomy.org

7:30pm.

Randall Museum
Randall Museum Theater
199 Museum Way
San Francisco
randallmuseum.org

July 16th - Dr. Claire Chapin, Merritt College

Join Dr. Claire Chapin for an engaging talk about the role of gravity in astronomy - from its roots in Newton's discovery and formulation to the role it now plays in modern theories about dark matter and black holes.

August 20th - Lynda Williams, Santa Rosa Junior College

"Space Ecology: The Final Frontier of Environmentalism"

Lynda will survey the current space debris situation and speculate on possible future scenarios created by the deployment of space-based weapons, the private space industry and geo-engineering solutions to climate change. As Lynda likes to say: What the world needs now, before it is too late, is an environmental movement in heaven: Space Ecology.

September 17th - Dana Bachman, SOFIA, NASA Ames

"SOFIA : NASA's Stratospheric Observatory for Infrared Astronomy"

SOFIA , a 2.5-meter (100-inch) telescope mounted in a modified 747SP aircraft, is expected to begin scientific observations in spring 2009. Flying above more than 99% of Earth's atmospheric water vapor, SOFIA will have nearly the same access as a space telescope to far-infrared and sub-millimeter radiation from celestial sources. The talk will cover development and testing of SOFIA as well as prospects for some of the exciting scientific observations that SOFIA will make possible.

October 15th - To be announced

November 19th - Jeff Cuzzi, NASA Ames

"What Have We Learned from the Cassini/Huygens Mission to Saturn"

In this talk, Jeff Cuzzi will review the key science highlights so far on the giant planet Saturn, its spectacular rings, its small but very diverse icy moons, and its planet-sized moon, Titan.

December 17th

Member's Night Our December meeting features presentations from our SFAA members, plus the annual contests from our members of entries of astronomy art, astrophotography and astronomy literary works. Elections of our volunteers for Officers and Board Members are held on this festive evening.

SFAA Yosemite Star Party at Glacier Point



panshot courtesy of Mojo

Friday, July 11 and
Saturday - July 12, 2008

We have a First Quarter Moon weekend so our quota will fill up quickly. To sign up, please [email Jorge](#) with "Yosemite" in the subject line; and in the text body: your name(s), number of people, type & size of scope(s).

If you are [currently registered](#) and decide for some reason you cannot come, please let Jorge know as soon as possible so others may fill your campsite. Those on the [wait list](#) will thank you for your consideration.

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.

Location: The Star Party will be held at [Glacier Point](#), hosted by the National Park Service (NPS). Here are [directions and guidelines](#). 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 campsite is 8.5 miles away from Glacier Point.

Background: For those of you unfamiliar with this event, we are given free reserved admission and camping space. In exchange, we give 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.

NPS limits astronomy clubs to a maximum of 30 SFAA campers. Please do not ask if your friends can come ... unless they are SFAA members. Want to [join](#) the SFAA? You are expected to have at least one public telescope for every two people.

Check the [National Weather Service](#) for up-to-date weather info on Yosemite Park current weather and conditions.

Here is a live cam of Half Dome from [Ahwahnee Meadow](#).

Once confirmed, you will be given an Entrance Fee Waiver Form that needed to present to the ranger at the park entrance. They will be available at our meetings. You may be asked to show the ranger your telescope when you enter the park.

Observing site: The observing area is mostly open, with incredible views from about NNW to the east, around to due south. The horizon from south around to the west is partly blocked by tall trees. Still, there is a lot of open sky, and typically, the seeing and transparency are excellent. It has warm temperatures of 70 to 90 during the day, and cool to chilly 40's 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 will have club members with red brake light tape to cover the offending flashlights.

Expect many questions from the public. Here is an [object list](#) with corresponding finder charts and some brief information.

Fun part- By around 9:30 or so, we will 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 potluck and is always fun. Please provide enough for ~ 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. Prizes will again 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 Saturday will be at 8:25 pm.

See you there, Jorge

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OUT AND ABOUT --

Kenneth Frank

MAY MOUNT TAM SUP NIGHT

Binoculars abound. Refractors take front stage. Saturn doesn't disappoint.



Making friends with an old refractor



See what you're missing!



Awaiting Sundown



Mike's Litebox captured faint fuzzies all evening

SAN RAFAEL HIGH SCHOOL

Repairing a Cave Classic Cassigrain at San Rafael High School. We're all happy. Easy fix & collimation. Hoping they'll join the SFAA soon.



RIVERSIDE TELESCOPE MAKERS CONFERENCE

Photo travelogue and Marni receiving her G. Bruce Blair Award from the WAA.



Barstow Discovery Ctr w/ Meteorite 3 X 3 X 3



2 Techies - 1 Idea



JMI Train-n-Track Motor Drive System



Yes, it snowed!



Jim at the controls



Mike & Ken w/ Porthole Glass vintage mid 60's



Book Signing



John questioning his minions



The McDermotts



Ethos Envy



Hey, watch me pull out a rabbit from this eyepiece box



The Astrowizard emulates the Snowman while Ken Lum looks on



And you said you were only going to talk THIS much!



Jack Borde introduces the past G. Bruce Blair Awardees



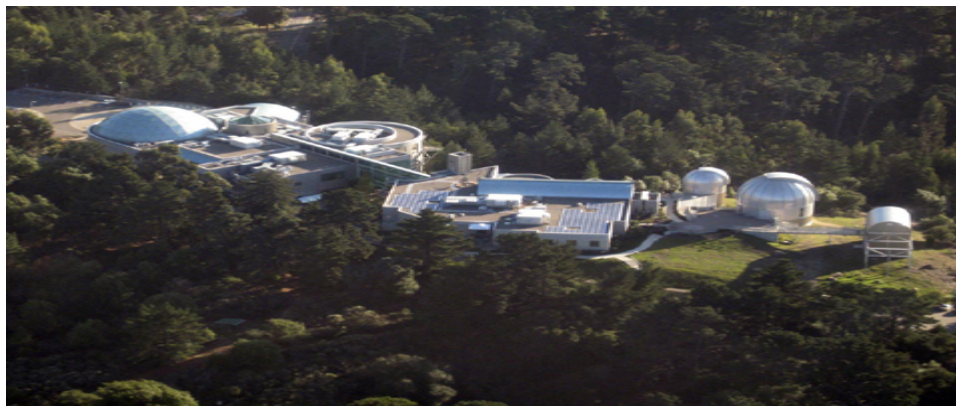
Jack, Ashley, Steve & Jack



Marni receives her award



Saturday, June 21, 2008
CHABOT SPACE & SCIENCE CENTER
Celebrating 125 years of inspiration!



Chabot Space & Science Center is celebrating an anniversary this year. In 1883, hydraulic engineer-turned philanthropist Anthony Chabot purchased and donated an 8-inch telescope to the people of the city of Oakland.

On Saturday, June 21, Chabot Space & Science Center will open, free of charge, to the public to celebrate 125 years of inspiring visitors with their telescopes, hands-on exhibits, and education programs. The celebration will include a fun, science-centered competition for kids called "The Chabot Space Games" as well as special guests, music and refreshments.

On Friday, June 20, at 10am, a commemorative marker will be dedicated at the site of the original observatory in downtown Oakland's Lafayette Square. A representative of Oakland Mayor Ron Dellums' office will read a proclamation stating June 21st is Chabot Space & Science Center Day in Oakland. At 11am, a ceremonial torch relay will be run from the original site, to Chabot's current location at 10000 Skyline Blvd. Chabot Executive Director/CEO will run the final leg of the relay and will arrive at Chabot Space &

Science at approximately 1pm. The public is invited to attend the ceremony and line the street for the relay.

The current 86,000 square foot facility is about twelve miles away from the original observatory, but it seems light years away, given technology advances. In 1910, an estimated 10,000 people viewed Halley's Comet through the telescope, named "Leah," after a story in The Bible. "Leah" is still in use today. True to Anthony Chabot's vision, it is open, free of charge, every Friday and Saturday evening. "Leah" was joined by "Rachel"- a 20-inch refractor in 1915. The Center added another 36-inch reflecting telescope in 2003.

Serving over 150,000 visitors a year, Chabot Space & Science Center's mission is to inspire and educate students of all ages about planet Earth and the Universe. Oakland has changed a lot in 125 years, since Jack London and Anthony Chabot walked the streets. One thing has remained constant through the years; an 8-inch telescope is available to the people of Oakland, ready to inspire those who gaze in awe at the beauty of our cosmos.

Robert Ade
Public Relations Specialist
Chabot Space & Science Center

July 27-August 1

Practical Observational Astronomy from the Sierra Nevada

General Description

This is a laboratory course that emphasizes astronomical observations made from the field. Within a national forest in the mountains, far from bright city lights, the Field Campus area has the dark sky ideal for observing faint celestial objects and meteors.

The course is designed for a person who wants to learn to identify the stars and constellations and to make simple observations with the naked eye, binoculars and telescopes. Telescopes and their accessories will be studied. We stress hands-on use of telescopes to view the moon, planets, sun, stars and nebulae of our own Milky Way galaxy, and other galaxies. Students will learn how to use star charts and atlases and the setting circles of an equatorial mounting to locate faint celestial objects. It should be particularly helpful to those beginning amateur astronomers who, having purchased their first telescopes, may now be having difficulty finding anything but the moon and brighter planets to observe. Students enroll to receive a letter grade, but have the option of switching to credit-no credit grading, or to audit, at the first class meeting.

Class Schedule

The first class meeting at the SNFC will be at 2:00 PM, Sunday, July 27 and the final session will be late Thursday night (Friday morning), August 1, 2008.

The class meetings are in the afternoon and at night, leaving the mornings open for hiking.

Each class member will construct a pocket sundial and a quadrant to observe the motion of the sky. We will learn to use the sundial as a compass on a luncheon hike to beautiful Frazier Falls, an easy mile hike from the trailhead. Other daytime activities include using the

moon to find the time, learning to use your star dial and doing experiments on telescope optics and on spectra. At night we drive to the Packer saddle area where we have an observation site on the Pacific Crest Trail.

Nighttime activities include naked-eye observations: constellation study, use of the quadrant to study sky motion, meteor counting, and observations of variable stars. With binoculars and telescopes we observe planets, comets, stars, nebulae, the Milky Way and other galaxies. On Thursday, the last night, the course culminates with a star party at which we show roughly a hundred vacationers and area residents the beautiful objects we have learned to observe!

For more information click on the names to visit the web sites of co-instructors Steve Gottlieb , [Jim Shields](#) and [Ray Cash](#).

Useful equipment and supplies

The sun sets at about 20:10 this time of year, and twilight ends about 22:00. Bring lots of WARM CLOTHING (hat, gloves, parka with hood) for the cold, late-night observing sessions, a DIM flashlight with a RED lens (Orion Telescope's "Adjustable Brightness Starlite LED Flashlight" is ideal), notebooks, pens and pencils, and the below texts. You are encouraged to bring your own observing equipment: telescopes, binoculars, astrolabes, cameras...

REQUIRED MATERIALS

- The July edition of "Sky & Telescope". Look in better bookstores in early July
- THE NIGHT SKY, a planisphere [Order at Amazon](#)
- The Bright Star Atlas by Wil Tirion [Order at Amazon](#)

2007-2008 MEMBERSHIP DUES

SFAA membership now comes due in June. Before now, dues were payable in the month a member first joined. Last year, the SFAA board voted to make everyone's dues payable at the same time - in June of each year. This was done for two reasons: 1) to save a great deal of work for our volunteer Treasurer, present and future, and, 2) for the convenience of members - it's easier to remember! In the past, many members forgot their due date and their membership unintentionally lapsed.

During this first year of transition: If your present membership runs past June 2007, just pay a prorated fee to extend your membership to June of 2008. Simply deduct 1/12 from this year's dues for each month already paid. For example, if you last paid your membership in September of 2006, you have a credit of three more months. Subtract 3/12 (1/4) from your annual fee and just pay that amount. We trust your math. Next year, and every year thereafter, everyone will pay only in June. Easy!

We realize this conversion process may be a bit confusing and more work for some. But this is a one-time transition and it will lessen the work and confusion for all the years to come!

N.B. for those of you who have a club discounted *Sky and Telescope* magazine subscription, you will need to renew your subscription separately. The magazine will send you a renewal notice. In the past, you had to send that renewal notice with payment to the SFAA; now you can mail your *Sky and Telescope* subscription renewal payment directly to *Sky and Telescope*. **Note: Not renewing your club membership on time may mean your magazine subscription(s) will also terminate.**

Thanks for bearing with us during this transition process -- it'll all seem worth it next year! Just complete the membership form on the last page of the newsletter and submit with your renewal check to:

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94108

YEARLY RATES FOR MEMBERSHIP

\$10 – Youth (under 18) Student Membership	\$25 – Individual Membership
\$30 – Family or Foreign Membership	\$40 – Institutional Membership
\$75 – Supporting Membership	

MEMBER BENEFITS INCLUDE

- Subscribing to our Announcements mailing list to receive newsletter, activity and event announcements.
- Interaction with world class speakers as they present cutting edge astronomical research
- Discounts on [Sky & Telescope](#) and [Astronomy](#) magazines*
- Discounts on equipment and accessories at [local telescope retailers](#)
- Annual club Astrophotography, Literary & Art Awards
- Social events, such as our annual picnic and our awards dinner
- Club telescopes – use one of the club's loaner scopes on a month-to-month basis
- Yosemite Star Party – held at Glacier Point exclusively for SFAA members
- Access to events and resources in Northern California and beyond
- Field trips – to observatories and other locations of scientific interest, such as Mt. Wilson Observatory in Pasadena, Chabot Space and Science Center, Fremont Peak, and the Stanford Linear Accelerator Center
- Extended observing hours at the Mount Tamalpais Astronomy Program
- Access to dark sites in Northern California

San Francisco Amateur Astronomers
POB 15097
San Francisco CA 94115

Please make checks payable to San Francisco Amateur Astronomers and mail to:

_____ E-Mail
_____ Hard Copy

You can choose E-Mail (Recommended) or hard copy delivery for Above the Fog (Check one)

Information: Name(s) _____
Address _____
City _____
State _____
Home Phone _____
E-Mail _____
Zip _____

Membership Categories (Check one): _____ \$10 Youth/Student
_____ \$25 Individual
_____ \$30 Family
_____ \$40 Institutional
_____ \$75 Supporting

Members pay one half the amount listed below
Membership is billed for each upcoming year on June 30. Between January 1 and June 30, new

MEMBERSHIP APPLICATION

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94115



Information Hotline: (415) 289-6636

Web Page: www.sfaa-astronomy.org

Sharing the Wonders of the Universe

Has your membership expired? Your mailing label includes the month and year through which your membership is paid. If it is past, your membership has expired and this may be your last issue.