

★ ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

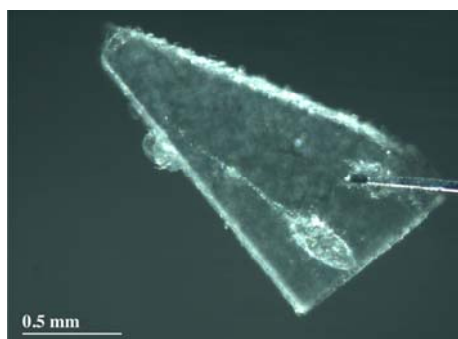
Vol. 56, No. 5 – May 2008

May 21, 2008 – General Meeting

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

**ANDREW WESTPHAL, Senior Fellow and Associate Director
Space Sciences Laboratory, University of California at Berkeley**

STARDUST: THE FIRST SOLID SAMPLE RETURN MISSION FROM BEYOND THE MOON

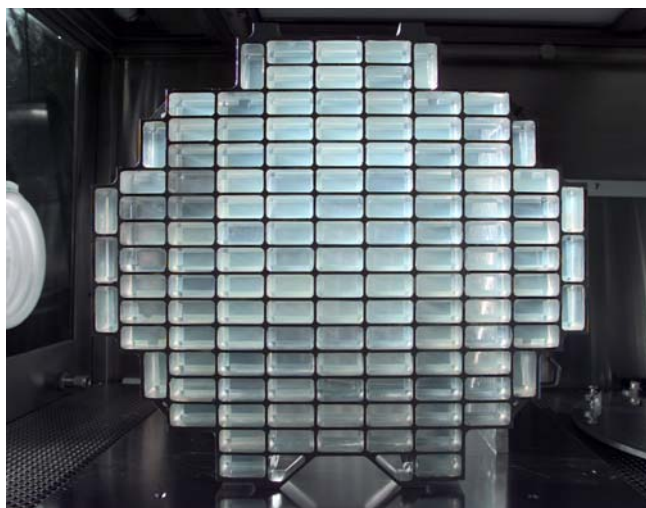


Comet Particle and Track
Photo courtesy of NASA

In January 2006, the Stardust mission returned to Earth the first solid extraterrestrial samples collected beyond the Moon. Stardust was in fact two missions in one. It returned the first samples of material from a Kuiper-belt object -- a Jupiter-family comet called Wild2. Stardust also returned the first samples of dust from the local interstellar medium --- these are the first solid samples of the contemporary galaxy.

Over the last two years, laboratories all over the world have been carefully scrutinizing the cometary samples. I will report on surprising results from these analyses. The cometary sample was in many ways the most challenging extraterrestrial sample ever returned to earth and successfully analyzed. The interstellar dust sample is even more challenging. Astronomy is one of the few fields in which amateurs play a critical role. Following this tradition, more than 23,000 volunteers have played a critical role in identifying interstellar dust particles in the Stardust interstellar dust collector, through a project called Stardust@home. I will report on progress in the extremely challenging task of identifying, extracting and analyzing the first interstellar dust particles ever returned to terrestrial laboratories for study.

Over the last two years, laboratories all over the world have been carefully scrutinizing the cometary samples. I will report on surprising results from these analyses. The cometary sample was in many ways the most challenging



Dust Collector with Aerogel . Photo courtesy of NASA

PRESIDENT'S COLUMN

Let me start this month's column with an update on upcoming out-of-town star parties. The SFAA Night at Fremont Peak is scheduled for June 6-7. This is your chance to find out how things look through a 30-inch telescope – not the typical aperture people usually bring to Mt. Tam. The sign-up list for the SFAA Yosemite Star Party on July 11-12 is currently at capacity. There are still ways to make it to the event: one is through the waiting list. The other is by arranging your own accommodation. Check the website for details.

You might have heard by now that the Stanford Linear Accelerator is currently closed for tours due to a construction project as SLAC is shifting its research focus from high-energy physics to photon science. Therefore, we cannot conduct our annual accelerator tour as in previous years. However, their public lecture series continues. You can find information on upcoming lectures, driving directions, and a campus map at SLAC's website: <http://www2.slac.stanford.edu/lectures/>

Now to an astronomical event that requires some long-range planning. The June edition of "Astronomy" features an article by A. Loeb and T.J. Cox from the Harvard-Smithsonian Center for Astrophysics about Milky Way's collision with the Andromeda galaxy in about three billion years. M31 is currently at a distance of 2.3 million LYs - racing toward us at 75 miles per second. How can galaxies be bound for collision if the universe is expanding? The reason is that galaxy clusters like the Local Group with three large spiral galaxies (Milky Way, M31, M33) and numerous dwarf galaxies are gravitationally bound. The attraction between these galaxies has overcome the expansion of the universe. They don't recede from each other but follow paths determined by their masses and radial velocities much like the planets in our solar system do.

Galaxy collisions are actually quite frequent. The Whirlpool Galaxy is the result of the interaction between a larger spiral galaxy, M51 or NGC 5194, and a smaller companion, NGC 5195. Another example, the Antenna galaxies (NGC 4038/4039) started to interact a few hundred million years ago. Their name stems from elongated tidal tails visible on the left part of the image below. Bright blue star-forming regions

and glowing hydrogen gas can be seen in the HST part of the image.



NGC 4038-4039: The Antenna galaxies in ground based and HST images (Source: Brad Whitmore (STScI) and NSSDC/NASA: STScI-PRC97-34a)

The title of the article, "Our galaxy's date with destruction", is a bit sensational. It seems to imply that stars will collide in fiery explosions and planets will be flung out of orbit by intruder stars. None of this will happen. The "collision" will morph the shape of the combined Milky Way/M31 object into an elliptical galaxy. And shockwaves will compact interstellar gas and trigger massive star formation - for sure a major spectacle on our future night skies. But stars will not collide and planets will keep circling their stars. The reason is that the ratio of distance to diameter is large for stars, about 30,000,000:1. By contrast, and surprising at first, the same ratio for galaxies within a cluster is only 20:1, which explains why galaxies collide much more often than stars do.

I want to end this month's column with an urgent call for Mt. Tam gatekeeper volunteers! I reported earlier this year that a record number of volunteers received training for gatekeeper duties in March. Unfortunately, only three people signed up as gatekeepers for the Mt. Tam public star parties, yet. We need to provide gatekeepers if we do not want to lose our spot on the mountain. Please check your calendars and contact Barbara Arrighi at secretary1@sfaa-astronomy.org to sign up!

DIRK LAMMERTS
PRESIDENT

2008 CLUB OFFICERS & CONTACTS

<i>President</i>	DIRK LAMMERTS	president@sfaa-astronomy.org
<i>Vice President</i>	Stephanie Ulrey	vicepresident@sfaa-astronomy.org
<i>Secretary</i>	Barbara Arrighi	secretary1@sfaa-astronomy.org
<i>Treasurer</i>	Vivian White	treasurer1@sfaa-astronomy.org
<i>Speaker Chair</i>	Linda Mahan	speakerchair@sfaa-astronomy.org
<i>City Star Party</i>	Stephanie Ulrey	csp@sfaa-astronomy.org
<i>Bulletin Editor-in-Chief</i>	Phil Estrin	editor@sfaa-astronomy.org
<i>Associate Editor</i>	Annette Gabrielli	
<i>Telescope Loans</i>	Pete Goldie	(415) 206-9867
<i>Honorary Director and Board Member Emeritus</i>	John Dobson	(415) 665-4054
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	Jim Cottle	
	John Dillon	(415) 332-8096
	Kenneth Frank	kennethfrank@palanitarium.net
	Elan Morpurgo	(415) 383-2247 elanesti@sbcglobal.net
	Jorge Morales	
<i>Alternate Board Members</i>	Jared Willson	
	Lon Carter	
<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 kennethfrank@palanitarium.net
- 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/agabrielli@sfaa@sbcglobal.net
- 7) 8" f/10 Meade SCT/Stefanie Ulrey/treasurer@sfaa-astronomy.org
- 8) 9.5" f/5.6 Celestron Newtonian/Ken Frank/kennethfrank@planitarium.net

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



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

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.

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

May 21

June 18

July 16

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

May 13

June 10

July 8

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

May 31* – 8:26 p.m. **Gatekeepers: Elan (One additional volunteer needed)**

***No New Moon weekend in June**

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

CITY STAR PARTIES - TELESCOPE CLINIC ONE HOUR BEFORE SUNSET

Saturday, May 24, 8:21 p.m. at Land's End (Point Lobos)

Saturday, June 21, 8:36 p.m. at the Randall Museum – Speaker: Michael Portuesi – “Exploring the Solar System”

Saturday, July 26, 8:23 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

May 21st - Andrew Westphal, Space Science Lab, U.C. Berkeley

“Stardust: The First Solid Sample Return Mission from Beyond the Moon”

In January 2006, the Stardust mission returned to Earth the first solid extra-terrestrial samples of material collected beyond the Moon. Westphal will report on the most recent surprising results from the analyses, aided by over 23,000 volunteers in the Stardust@home project.

June 18th - Janet Luhmann, U.C. Berkeley

“Space Weather”

Janet Luhmann will talk to us about our Solar dynamo, which is returning to a new solar activity cycle, and how it may affect us, our satellites and those who will venture into space. Join us for this interesting topic.

July 16th To be announced

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.

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 LIFETIME HONORARY MEMBERSHIP

DAVID PERLMAN

**Senior Science Editor
San Francisco Chronicle**

April 28, 2008

Hi to all of you!

I just want to thank you immensely for my "Lifetime Honorary Membership," for the terrific certificate and the fun dinner last week. The certificate is on display next to my desk and my super-editor-boss. Fortunately for you all I probably won't exercise my membership rights for too long, as I must now be the oldest geezer by far on your list!

Anyway, so many of you have been so helpful to me for so long that I can only say thanks and wish you all great star hunting, comet chasing and supernova catching. We're all made of supernova dust if what I've been told is true, which must make us all related - and if that's not our common ancestral heritage, then the Big Bang is the daddy of us all, for sure.

Again my warmest thanks,

Dave

David Perlman
Science Editor
San Francisco Chronicle

Invitation to the SFAA Imaging Group

We've all been impressed with the entries to the annual SFAA astrophotography contest. The images of Robert Berta, Jared Willson, Norman Mahan, Cheryl Schudel, & Phil Lau are an inspiration to us all. How many of us have asked ourselves, "Could I even do that?" If we have, the next question is: "Where do I start?" In some cases, members may have already made an investment in equipment. In other cases, it might just be an idea for the future.

Membership in a club is already the best way for a beginning amateur astronomer to learn visual astronomy. Why not make it the best way to learn astrophotography as well? While other local astronomy clubs do not have an astrophotography contest like SFAA, some do have an astrophotography group. In the last year, I have attending imaging special interest groups at: Eastbay Astronomical Society, Mount Diablo Astronomical Society and the Peninsula Astronomical Society. I have found it a great way to meet people with a common interest, share tips and ask about personal experiences with equipment and software techniques.

I understand in speaking with one SFAA board members, that there have been attempts to start just such a group within SFAA in the past. But things are changing, and all for the good. Every year it seems the performance of CCD imagers are improving. And there is the advent of remote, robotic astrophotography as well. There are more ways to get involved than ever before.

A Wired article from February 25, 2008, entitled, "Four Online Telescopes Serve the Stars to Interstellar Papparazzi" writes about four Internet telescopes. Three are free, and one is only \$100 a year. I have used all four, and can say there is something left to be desired in all of them. Still, it is a trend, as a higher percentage of the world's population lives under light polluted skies.

Whether you own your own equipment, are considering getting some in the future, or what to try remote astrophotography, there are compelling reasons to form a group. If you would like to join, I have formed a Yahoo Group entitled, "SFAA Imaging SIG". http://tech.groups.yahoo.com/group/SFAA_Imaging/ Or, if you prefer send me a message at michael (dot) kran (at) kran (dot) com.

First, we need to find out how many members are interested. Then we can move on to questions about the date, time and location of a monthly meeting.

Don't worry if you have nothing but your curiosity to bring to the first meeting. It is intended that this group will serve the needs of novice to intermediate level astrophotographers. At the same time, it would be of immeasurable value of some of the more experienced imagers with SFAA would be willing to occasionally present at the meetings once the groups gets off the ground and has a regular attendance. Just to set expectations, if a dozen members indicate interest, and half that number show up an any one meeting, that would be a great success.

There are a lot of ways to make it of interest: a talk by an experienced astrophotographer, demos of software and hardware, a trip to a local private observatory, and the possibility of imaging up on Mt Tam as a group. We can have a target of the month, allowing us to use the same object but compare

techniques and results with different equipment. Looking forward to seeing you!



M20- Trifid Nebula.

Taken my first month on a remote telescope at
New Mexico Skies.

Annual SFAA NIGHT - Fremont Peak Observatory June 6-7, 2008

Each year for the past few years the FPOA has graciously granted us use of their 30 inch telescope for a Friday. In exchange, we do a public program the following day and night as a thank you. We have reserved the Observatory Friday, June 6th evening for an exclusive private gathering of members from the SFAA. I asked Michael Portuesi if he wouldn't mind again putting together a suggested [object list](#) to view. Also for our Solar System: [Moon & Mars](#), [Venus and the Sun](#) will be very close together for those w/ solar scopes, [Saturn](#), [Jupiter](#) [Pluto](#), and your favorite UB. Let me know what you want to see so we can schedule it in.



Courtesy of [Art Rosch](#)



Wanna come? It's open to all current dues paying [members](#) of SFAA.

Please [email](#) your license plate # of your car, and if you're bringing a scope the type and size like you do for Yosemite.

[Here's](#) who has signed up so far. 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 6 powered observing pads outside the observatory, where visiting astronomers (like SFAAer [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.

[Fremont Peak State Park](#) is about 100 miles south of San Francisco, and eleven miles south east 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 and pay the day or 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.

Doug Brown, President of FPOA noted that Fremont Peak being as popular as a historical stopping place is also mentioned on page 50 of May + June 2005 issue AAA's Via Magazine! If you'd like to help in maintaining the observatory, there are work parties on Saturdays. If you're interested, contact [Doug](#).

Dr. Doris Sloan, an FPOA member just wrote an article in Bay Nature Magazine about Fremont Peak. Coincidentally the [April-June 08 article](#) is embellished with our own Michael Kran's photos as well!

For SFAA members wanting to enjoy this gorgeous telescope on their own, practically whenever they choose (with a few exceptions) and you're interested in joining FPOA and becoming qualified to use the telescope, contact [Ron Dammann](#), Director of Instruments at FPOA.

Also, if you'd like to participate in a great social activity with the FPOA folks, they are having their Star B Q in conjunction with the [AANC](#) on Saturday August 2nd. Let [Doug Brown](#) know if you're interested in coming.

For more information about Fremont Peak Observatory, including excellent directions, visit their web site at <http://www.fpoa.net>

[Here](#) are a few pix of our day and night on the Peak last year.

Looking forward to seeing you again this year. Ken

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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

APRIL CITY STAR PARTY

About 20-30 attendees were at Land's End, all ages from about four months to 74 years. Viewed the International Space Station, M42, The Moon, Saturn at 300x (way way cool), Pleiades, lots of binocular viewing.

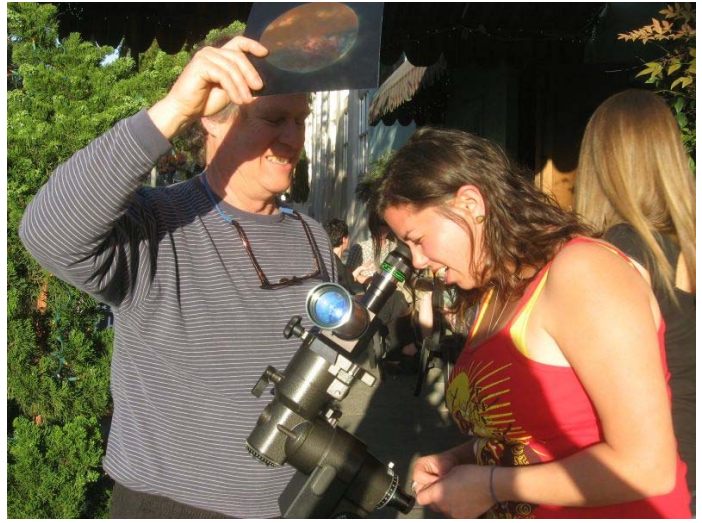
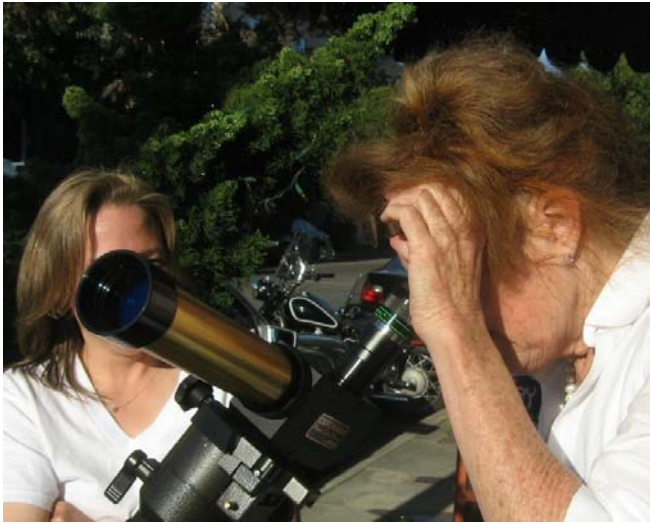
During the day we had solar observing. Dave Fry used his Coronado and the white light glass solar filter I bought from Scope City on my 80 mm 1200mm FL refractor.

The group at Lands End. More at <http://www.planitarium.net/sfaa/isanz/>



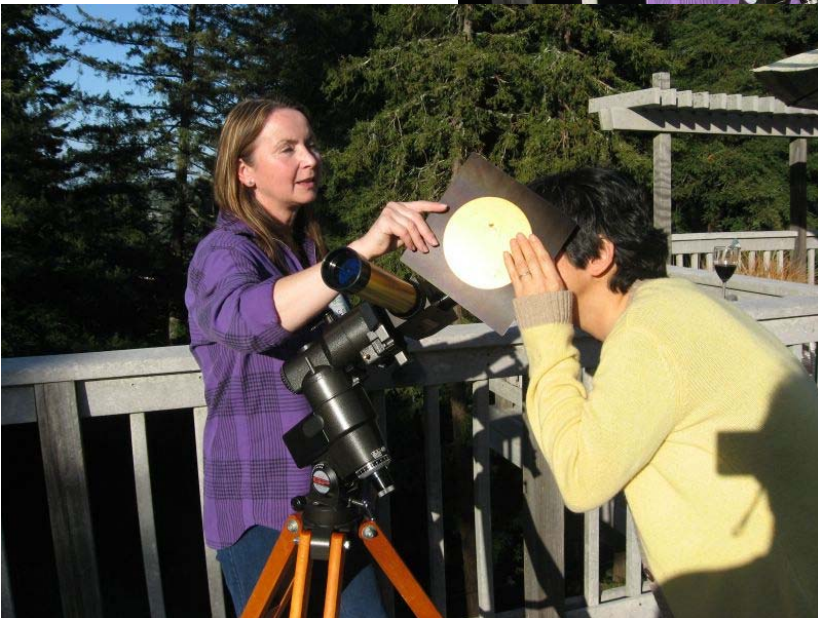
2ND INTERNATIONAL ASTRONOMY NIGHT

More photos at: <http://www.planitarium.net/sfsa/isan-2/>



MT. TAM - CALIFORNIA ALPINE CLUB - FOR SIERRA CLUBBERS

<http://www.planitarium.net/mtia/cac-sp/>



Thank You, Ken!

JPL - What's Up for May

The May edition of JPL's What's Up Podcast is online and it is available in both standard and high definition. <http://education.jpl.nasa.gov/amateurastronomy/archives.html>

This month we step away from the Solar System and talk about 3 easy-to-see galaxies near the easy-to-find Big Dipper. These three galaxies, M81, M82 and M51 have also been imaged by the Spitzer Space Telescope. In the podcast, you can see what Spitzer saw, and what you can see in a low power telescope or binocular view. Plus my hubby Mojo took the astro photos this month - his first photos using one of our telescopes!

We have a second May What's Up in the works, and it'll be all about Mars. It will be available in time for the Phoenix Landing on May 25th. It's nice to be able to show our museum, planetarium and other informal audiences, like you the planets in the sky when something exciting is happening.

This month Mars is still fairly high in the west at dusk and you won't want to miss it! It passes in front of an easy-to-see cluster of stars from the 22nd to the 26th. The cluster is called the Beehive Cluster, or Messier 44. It's a good binocular target too! On the day the Phoenix Lander touches down, May 25th, you'll see Mars just to the west of the cluster. This open cluster of stars is almost 600 light years distant and has thrilled astronomers since prehistoric times. Through binoculars, Mars will be the brightest object among two dozen or more stars in the cluster. Here's a great picture of [M44, the Beehive Cluster](#) and another of [M44 with Saturn and Mars on either side](#).

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This month we step away from the Solar System and talk about 3 easy-to-see galaxies near the easy-to-find Big Dipper. These three galaxies, M81, M82 and M51 have also been imaged by the Spitzer Space Telescope. In the podcast, you can see what Spitzer saw, and what you can see in a low power telescope or binocular view.

We have a second May What's Up in the works, and it'll be all about Mars. It will be available in time for the Phoenix Landing. It's nice

to be able to show our museum and planetarium and other informal audiences the planet in the sky when something exciting is happening.

This month Mars is still fairly high in the west at dusk and you won't want to miss it! It passes in front of an easy-to-see cluster of stars from the 22nd to the 26th. The cluster is called the Beehive Cluster, or Messier 44. It's a good binocular target too! On the day the Phoenix Lander touches down, May 25th, you'll see Mars just to the west of the cluster. This open cluster of stars is almost 600 light years distant and has thrilled astronomers since prehistoric times. Through binoculars, Mars will be the brightest object among two dozen or more stars in the cluster. Here's a great picture of [M44, the Beehive Cluster](#) and another of [M44 with Saturn and Mars on either side](#).

To see the North Pole of Mars, where Phoenix will land on the 25th, you will need to use a little imagination. Mars, only twice the size of our own moon or half the size of Earth, is now quite far from Earth. Through a telescope, Mars will look like a small fuzzy ochre gibbous moon.

Watch as Mars and Saturn draw nearer to each other this month and next. Saturn is higher in the sky and a brilliant view in telescopes.

Jane

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Jane Houston Jones

Monrovia, CA . 34.2048N 118.1732W, 637.0 feet

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
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San Francisco CA 94115

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

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\$40 Institutional _____

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
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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.