

★ ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

VOL. 48, No. 3 – March, 2000

San Francisco
Amateur Astronomers



Sharing the Wonders
of the Universe



Information Hotline
(415) 566-2357

Web Page
<http://www.zennla.com/sfaa>

A Letter from the President

Al Stern

Inside you will find announcements, details, and registration forms for several upcoming events.

Please plan to attend the City Star Party on Saturday, March 11, at 6:00 p.m. The guest speaker will be our own Lew Epstein.

The first Mt. Tam Star Party is on April 1st at 7:00 p.m., featuring Norm Sperling, science editor of ALTAVISTA.com. He will be talking about “The Pull of the Planets.”

The AANC Symposium on Saturday, March 25th is well worth attending.

Astronomy Day is Saturday, April 8th. Please sign up and join the fun!

Sign up for the Yosemite trip, coordinated by Bob Levenson. It is on June 30th, July 1st and 2nd.

Also, consider the Riverside Telescope Makers Conference (RTMC). Go to their web site at www.rtmc-inc.org/2000.html for information or contact me.

Our own Jane Houston Jones and her hubby, Mojo, will be presenting at the 8th Annual South Pacific Star Party, hosted by the Astronomical Society of New South Wales in Australia. For those interested in a quick and unique vacation, this takes place March 31st through April 3rd. ☺

And finally, to honor John Hewitt’s contributions to public service the UC Regents have approved the John Hewitt Memorial Fund. It will be used to further his interests in public telescope availability. Donations payable to UC Regents (put “John Hewitt Fund” on the check memo line) may be sent to:

Louise Archie
Lawrence Hall of Science
University of California
1 Centennial Drive, Room 215
Berkeley, CA 94720-5200

SFAA Officers 2000

President Al Stern
(510) 728-1851

Vice-President Bill Stepka
(415) 928-2367

Secretary Renita Mock
(415) 566-2357

Treasurer Chelle Owens
(415) 479-5313

Honorary Director John Dobson

Board Members

Joe Amato
Lorrie Boen
Toney Burkhart
Nancy Cox
Mary Ann Levenson
Stacy Jo McDermott
Dennis Tye

Alt. Board Members

Randy Taylor
Jim Webster

Star Party Coordinator

Bill Stepka (415) 928-2367

Subscriptions & Membership

Chelle Owens (415) 479-5313

Bulletin Editor

Lorrie Boen (415) 921-1432

Telescope Loans

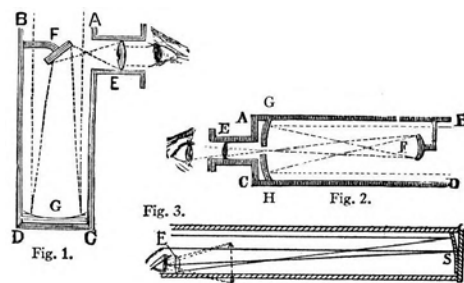
Ray Cash (415) 665-8666

SFAA Website Update

For those of you with online access, don't forget to visit the club's website. The bulletin board area especially is a great place to post info and ask questions. Go to <http://www.zennla.com/sfaa>.

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 last day of the prior month. Send your articles to Lorrie Boen at 765 Geary Street #302, San Francisco, CA 94109 or at LorrenLee@aol.com.

Club Telescopes



Long time member Ray Cash-LePennec has 3 loaner telescopes for club member use and is in charge of loaning them out. If you are interested in borrowing a club telescope, give Ray a call. There are many new members in the SFAA and they ask what kind of telescope to buy or use and this is a good way to get to know the Dobsonian type of scope and learn the sky as well.

CLUB DATES

Board Meeting

April 12 – 7:00 p.m. Western Addition Library – corner of Scott & Geary Sts. SF

SFAA Club Meeting

March 15 at 7:30 p.m.

April 19 at 7:30 p.m.

Morrison Planetarium, Golden Gate Park

City Star Party

March 11 at 6:00 p.m.

April 15 at 7:30 p.m.

Mt. Tam Star Party

April 1 at 7:00 p.m.

Leonid Storm 1999: Welcome Home, Spike!
We're glad you made it!
Part 4 of 4

By Jane Houston Jones

The complete story & photos can be found at
<http://morris.san-jose.psn.net/~mojo/jhmac/index.html>

One group cheered for the progress of the Leonid Mission more than any other group. Ms. Carson's first and second grade class in room 17 of the Glenview Elementary School in Anaheim, California, rooted the very loudest. I could hear them all the way 'round the world! They were my rooting section. Why was this class rooting for the Leonids? And following our progress? Because of Spike. Spike, the Glenview Elementary School Bulldog!



Spike with friend, Neon,
at NASA Ames

When my niece, Kristen, heard all about the trip I was going to take, she began compiling a scrapbook. Kristen's scrapbook was soon filled with images of her Aunt Jane in a flight suit, many Leonid web pages brimming with information, the flight path mapped around the world with cities and countries listed, and with melted crayon comets adorning the pages.

Kristen built a memory over the past few weeks. Kristen asked her teacher if the school mascot could go with me on the trip. Now a real bulldog would require some quarantine time and other red tape. So a six inch bulldog, filled with beans, and named by Ms. Carson's class "Spike" was designated to be my traveling companion on my journey.

Spike and I became fast friends. We went everywhere together. When we left Marin County, California, we sent the class a postcard. "We're Off!" Spike told the youngsters. "See you in 10 days!"

Soon Spike was at NASA Ames, in Mountain View, California, awaiting the van ride to Edwards Air Force Base. Click. A photo memory of Spike at Nasa Ames Research Center. We stayed two nights in Lancaster, CA, near Edwards Air Force Base. The days and nights were for aircraft readiness and my practice work for the mission. Spike was just so darn excited, he would barely stay put in my backpack. Sometimes he snuggled in my pocket. Once he got away, but soon he was back where he belonged. He was a very inquisitive bulldog, and wanted to be sure to experience every aspect of the mission. He had a very important duty: to report back to Ms. Carson's class.

Six year old Kristen joined us in Lancaster. She brought her scrapbook, and over dinner and breakfast the next morning, Kristen showed the scrapbook to many researchers on the mission. She asked them to autograph her scrapbook. On one very special page are the signatures of dozens of researchers. The researchers from all the nations represented on the mission signed Kristen's scrapbook. All three women researchers did, too. Kristen proudly told one woman that her favorite subject was math. "Math will get you anywhere, I love math the best, too!" replied Dr. Sandra Nierman, a woman scientist on the mission. Soon a researcher returned from his room with mission patches and decals. Kristen's eyes were popping out! Some of the patches and decals went into the scrapbook.

Soon the breakfast room was filled with the blue flight suited researchers. They were soon to depart for Edwards AFB. Dr. Peter Jenniskens drew an aircraft with upward facing windows, filled with cameras and smiling faces in Kristen's scrapbook. Outside the aircraft were comets and shooting stars in Dr. Peter's drawing. "Reach for the stars, Kristen," he wrote, I think! I contributed a page of the expected Leonid Meteor storm. Many faint and brilliant shooting stars filled my drawing. Spike watched all this with growing interest. But being a good bulldog, he settled right down. Click. A photo memory of Aunt Jane

in her blue flight suit, Kristen and Spike, the Glenview Elementary School bulldog.

The first thing Spike did in every town he visited was to find some postcards and stamps. Then together we wrote a note on a postcard and addressed it to Ms. Carson's class in Anaheim, California. Postcards from Cambridge, England, Tel Aviv, Israel and Praia in the Azores were written, stamped and mailed. It is not easy finding stamps and postcards, but with Spike's nose for details we succeeded, even in Tel Aviv. It was also hard finding post office boxes to mail the postcards. But we did it! Spike found the post office boxes everywhere!

Spike wanted to be in a lot of pictures. The pictures will go into the class scrapbook. The postcards will teach the class about world geography. Kristen will help her class learn about comet dust and meteor storms. I won't be surprised to hear one day that Kristen will bring her 6 inch reflector telescope to school. Click. Click. A photo of Spike at Kings College Chapel in Cambridge, England. Click. Click. A bulldog on a rock on the shores of the Mediterranean Sea in Tel Aviv, Israel. On the Mid Atlantic Ridge in the Azores sits Spike the Glenview Elementary School bulldog. So far from home! Click. Click. Click went the camera.

Spike also wanted to see all the parts of the aircraft - both aircraft, the ARIA and the FISTA. Spike, the tenacious bulldog wanted to ride in the cockpits of the aircraft. Of both aircraft! Click. Click. Click went the camera. One picture with Spike in the cockpit of the FISTA. Then another night. Click. A picture of Spike in the cockpit of the ARIA. He was a party animal too. Click Click. I hope in dog years Spike is over 21. I might be in trouble otherwise.

In Cocoa Beach, Florida, Spike sent another postcard. Then when he crossed the Golden Gate Bridge to go home, he sent the final postcard. "I'm home, class! See you soon!"

Wow! What a trip Spike had!

Over Thanksgiving, Kristen and her family drove up from Anaheim to stay at my house. Spike, the Glenview Elementary School bulldog was so

happy to see her! Today he arrived back at Glenview Elementary School in Anaheim, California. Kristen just told me on the phone that he is sitting on Ms. Carson's desk right now. And that his favorite subject is Science.

Ms Carson's class wrote a special card for us. Kristen brought it to us on Thanksgiving Day. It reads: (and I quote)

Congratulations to Jane and Spike!
They made it!!
November 24, 1999

Dear Jane and Spike,

Thank you for the postcards that you sent to us. They were cool. They showed us where you were. We have some questions that we could like to ask you.

1. How did you get to places soooooo fast?
2. What was it like when you saw the 16,000 shooting stars?
3. Where did you see them?
4. Would you like to do this again?

We would like to invite you to come to our classroom. Please let Kristen know if you can come and when you can come.

Sincerely,
Ms. Carson's class

Surrounding the letter were yellow post it notes. Each post it note was signed by one child in the class, and each child drew a picture of his or herself on the post it note. Thanks class!

To Nadia, Joscelyn, Tory, Alex, Juan, Lindsay, Molly, Garrett, Aman, Sarah, Anjali, Jayme, Nicole, Vedant, Maggie, Zach, Tyler, and Kristen, I'll see you all in class soon. I'll wear my flight suit and Spike and I will tell you the answers to your questions and much more! Thanks for being my rooting section. You made the trip special for me!

Jane Houston Jones



The Silicon Valley Astronomy Lectures

Smithwick Theater, Foothill College
Los Altos, California

THE CHANGING SUN AND THE EARTH'S CLIMATE:
Why Louis XIV Had Cold Feet
April 12

Speaker: Dr. Sallie Baliunas of Harvard-Smithsonian Center for Astrophysics and Mt. Wilson Observatories.

For telephone updates about the series, check the hot-line at (650) 949-7888

Morrison Planetarium's Benjamin Dean Lecture Series *presents*

Looking Back: A Historical Approach to Understanding Modern Astronomy

28 March

Astronomy of the Twentieth Century: A Retrospective

Many currently accepted concepts – from nuclear fusion in stars to the expanding universe – were unheard of only a hundred years ago. What were the most significant discoveries of the past century?

Dr. Helmut Abt, National Optical Astronomy Observatories

DEAN LECTURE INFORMATION LINE at (415) 750-7141



Astronomy Day

Saturday, April 8th, 2000 10 a.m. - 5 p.m.

Are you so full of Astronomy, you're about to burst? Come and share your love of the sky with the public! Celebrate International Astronomy Day at the California Academy of Sciences, Saturday, April 8th, 10 a.m. to 5 p.m.

The San Francisco Amateur Astronomers have graciously participated in Astronomy Day at the Academy for many years, and we would like to ask for your help again in 2000. In the past, the SFAA has helped demonstrate safe solar viewing, computer software, and other astronomical resources. Bring out your telescope, your favorite astronomy books, or just be here to answer questions. We can't guarantee clear skies, but we can guarantee pizza and lots of interested people.

If you are interested in helping out, please e-mail Kirsten Vanstone at: vanstone@calacademy.org, or call me at (415) 750-7325.

Stacy's Stargazing Getaways

Del Valle

(Or The Long and Winding Road With A Bit of
Mud Thrown In For Good Measure)

by Stacy Jo McDermott

Having been a long time Bay Area resident, I've gotten used to the rainy days of January. It's a good time to catch up on videos or books that got left by the wayside. However, this January, and into February, I was required to go to Phoenix for a department sales meeting. The idea of getting away from the rain, fog and generally messy conditions appealed to me and the thought of clear Arizona skies at night made it downright necessary. Now on the other hand, to sit through meetings and endless presentations ranks right up there with watching grass grow. I did decide that was a small price to pay if I could get my photon fix. The Arizona skies were lovely and less light polluted than the Bay Area. While I was not able to fit my 80mm Short Tube refractor (dubbed "The Delta Flyer") into my suitcase, I did manage to fit in my binoculars (no name yet, suggestions welcomed). I held mini-star parties for anyone who even glanced at the evening sky. All this taken together made sitting through those endless presentations more bearable.

However, I realized that by indulging myself to our sister state's almost pristine nightly show, I had become more than just rabid about getting out to some slightly dark sky site here in the Bay Area when I returned from this business trip. It just wasn't a need; it had become an obsession. Having returned on a Thursday, with a sprained ankle no less, and a full, crazed and mostly horrendous Friday trying to catch up on back logged work, I found sitting in my email box was a message from the TAC observers group. Now TAC is an acronym for The Astronomy Connection. It is an online observers club made up of mostly Bay Area observers who go out at any time conditions present themselves for a night of stargazing. What's neat about TAC is that there are no dues because there is no overhead. Members keep in touch by email and the email discussions are archived on the TAC website located at www.observers.org. Anyone can join (and if you like active observing, you are

encouraged to do so) and the only requirement is a love of observing. So, it seems that people were planning on a night of observing the first Saturday night in February. The weather reports looked promising. Most of the TAC members were planning on going to Henry Coe State Park south of Gilroy. While I have not been there and plan on going in the future, having just gotten back from said arduous business trip; I was looking for something a little closer. Then someone posted a question asking if anyone was going out to Del Valle, south of Livermore for observing. So rather than bore you dear reader, I will skip the details on how I ended up at this great little place. Suffice it to say, that was my destination.

Saturday at 5.30 PM I decided it was a go after checking the satellite pictures. A TAC member called me and told me he was going also, so while small, we were none-the-less an eager group. So I threw my gear (120mm refractor dubbed "Voyager") into my truck, dubbed "Babe" and headed out. It took me 55 minutes from the freeway as you get on the Bay Bridge to get out to Del Valle. Not bad considering the large amount of traffic leaving SF at that time of day, on a weekend! Actually, it looked like a mass exodus as if some giant Gila monster was attacking our fair city. Oh the horror...

Having reached Del Valle, I spied my fellow observer's car and proceeded to follow him through the gate to the observing site. It was a little muddy following the previous week's rain (missed that, darn!). About a half an hour after arriving and setting up, the sky miraculously cleared and all I saw was dark sky and the light from hundreds of stars. I also noticed a bit of sky glow from the west and south but it really wasn't too bad. It wasn't even annoying. So for almost three hours, I indulged in what the wintertime sky had to offer. Orion was incredible as always. Jupiter and Saturn looked stunning. Mizar and Alcor were easily split. I then found myself hopping from one open cluster to another. I just couldn't get enough! Canis Major holds M41, Gemini has M35, Auriga contains M36, M37 and M38. The Trapezium at the core of M42 held my attention as we switched out eyepieces to see the different properties of each. The Beehive cluster, M44, is made up of various stars at different stellar stages, giving off splashes of color that take your breath

away. The Pleiades, M45, garnered quite a bit of time with me also. While this list doesn't seem extensive (and believe me I had made a list longer than this), taking the time to look at the detail and the beauty of these few objects took up most of my time and made the trip out quite fulfilling.

Toward the end of our observing session, or more accurately, the end of our observing session came when the wind started to pick up and fog from the valley slowly climbed nearer as if to tell us politely, that while we were welcomed, it was time to go. Even the frogs and coyotes who had serenaded us earlier with their songs, had become quiet.

In my opinion, this is a great site within the immediate Bay Area. Visitors are welcomed to the observing site, however, a TAC member with the permit is the official host and his/her presence is mandatory per the agreement between the park and TAC. Please check the TAC website for guidelines. If you find yourself wanting to go out there and there is no "planned" observing session, you can set up outside of the gate near the road. While this does leave you vulnerable to car headlights, it seems it would also offer a pleasant observing experience.

The best way to see if there is a planned observing session is, again, to check out the TAC website listed above. The website also offers directions to Del Valle, which are incredibly easy. 580 East to Vasco Road south. Take South Vasco road until it deadends at Tesla, make a right on Tesla, take a left on Mines Road, drive for about 3 miles where you will see Mines Road make a 90 degree angle turn. Don't turn!, head straight a little ways just to over the crest of the hill and on your right, you will see a gate and a very small dirt parking lot. This is the entrance to the observing site. If you find yourself heading down the hill, you've passed it.

I think I will become a fixture out at Del Valle for future stargazing excursions. Once you've been there, you'll know why.

Overall Rating based on this site being a "close" site to SF:



| | |
|----------------------------|-----|
| Urban Sky Darkness factor: | 8 |
| Ease of Getting There: | 8 |
| Parking: | 4* |
| Planning | 3* |
| Dew Factor | 4** |

* Please note that observing site is a SMALL area in a state park. Please check out the TAC website email archive to see how many people may be planning on going to Del Valle. If you see at least four people planning on going, please choose another night. The environment of Del Valle cannot handle a group of more than four vehicles due to cattle grazing and the small parking area for cars beyond the gate. Amateur astronomers are some of the best environmentalists I know and we realize the value of ecologically delicate areas. Please be a responsible observer!

** Del Valle is not high in altitude so dewing will occur! Plan on this factor so your night observing is not cut short by the moisture in the air. I bit the bullet and bought a Kendrick Dew Removal System, which after using it my first night at Del Valle, provided that extra nth of enjoyment. Now, the inside of my truck did not fair so well after my observing session. Needless to say, I should have had windshield wipers on the inside!

©2000 Stacy Jo McDermott. Usual disclaimer that SFAA, its board and members and TAC and its members may or may not share opinions expressed in this article. (I'm just amazed that they let me keep going with this column!) Comments, questions, concerns or valuable insights (or good lottery numbers) may be addressed to Stacy Jo McDermott at smcdermo@cmp.com or jostaznik@yahoo.com.

Texas Star Party
April 30 – May 7

Registration information can be found at: <http://www.metronet.com/~tsp/tspreg.html>

COMET COMMENTS FOR MARCH 2000

By Don Machholz

Several comets have been discovered recently, none expected to be visible to us. Meanwhile, Comet LINEAR (1999 L3) is presently brighter than expected, positions are presented below. The magnitude predictions are estimates.

Kazimeras Cernis, a visual discoverer of three comets that bear his name, has now found a comet on images produced by the SOHO satellite. The comet was in a retrograde orbit and never got closer to the sun than 4 million miles. No earth-based observations were made of the comet.

EPHEMERIS

Comet LINEAR (C/1999 L3)

Date(00UT) R.A. (2000) Dec El Sky Mag

02-11 08h04.8m +25d29' 156d E 11.2

02-16 07h31.7m +27d32' 143d E 11.4

02-21 07h03.1m +28d51' 132d E 11.6

02-26 06h39.4m +29d38' 122d E 11.8

03-02 06h20.2m +30d03' 113d E 12.0

03-07 06h05.0m +30d16' 104d E 12.2

03-12 05h53.0m +30d22' 97d E 12.5

03-17 05h43.7m +30d24' 90d E 12.7

03-22 05h36.6m +30d24' 83d E 12.9

03-27 05h31.1m +30d23' 77d E 13.1

04-01 05h27.1m +30d23' 71d E 13.2

04-06 05h24.1m +30d23' 66d E 13.4

Perihelion was on Dec. 28. It is named C/1999 Y2. On Jan. 24, SOHO images yielded yet another comet, a Sungrazer. J.D. Shanklin found it. The LINEAR program found a comet on Dec. 7, and one each on Jan. 27 and 29. The Spacewatch program found one on Jan. 12. Not to be left out, the Catalina program found a faint comet on Feb. 4.

COMET HUNTING NOTES: A few amateurs have found comets on the SOHO images. The SOHO webpage carries images that have been quickly inspected for comets. Anyone can inspect the images and search for additional, fainter comets. This reminds me of the Palomar Sky Survey plates from which comets were discovered for decades.

ELEMENTS

Object: LINEAR (C/1999 L3)

Peri. Date: 2000 01 04.9101

Peri. Dist (AU): 1.988921 AU

Arg/Peri (2000): 353.2987 deg.

Asc. Node (2000): 140.1609 deg.

Incl (2000): 166.0993 deg.

Eccen: 0.974292

Orbital Period: 680 years

Ref: MPC 37478

Epoch: 2000 02 26

Absol. Mag/"n": 7.8/4.0

A Meeting to Challenge Establishment Dogmas

THE NEW NATURAL PHILOSOPHY

ESTABLISHING RATIONALITY AND OBJECTIVITY IN PHYSICS AND COSMOLOGY

Berkeley, California • Papers, 19 & 20 May • Informal Discussions, 21 May

Organized by the Natural Philosophy Alliance, P.O. Box 14014, San Luis Obispo, CA 93406

Registration Fee only \$20 (\$10 for NPA members; regular dues \$30). Members may read papers; abstracts accepted as late as May 28. You are welcome, whether you wish to read a paper or only listen and discuss.

For further information, write to NPA at the address above.

Featured Speaker: William Mitchell, author of "The Cult of the Big Bang"

Specially emphasized themes: Cosmology/aether theory/reinventing the data

[-Among NPA members: Halton Arp; Grote Reber (principal founder of radio astronomy)-]

AUCTION XX

On Saturday, April 15, an astronomical swap meet and auction will be conducted at Houge (city) Park in San Jose. Sponsored by the San Jose Astronomical Association, this is our only fund-raiser. Doors open at noon (or only slightly before) for the swap meet. Each buyer pays the seller. Sellers are to keep track of their sales, and pay a 10% commission. For big items, there's a cap of \$50/item.

At about 3:30 we'll break down the tables and set up for the auction. Items for auction must be registered, but there's time for that during the day. Auction starts at 4, usually done by 6. Settle-up is done afterward by one check to (or from) SJAA, then the items may be claimed. The same commission applies. Seller specifies minimum bid; if not met, it goes back to the seller with no commission applied. There are no table fees other than a \$1 requested donation for the auction bidder/seller number. We do not handle charge cards. The commissions are tax-deductible, as SJAA is a 403(c)(3) educational organization.

DIRECTIONS:

From Hwy.17, take the Camden Avenue exit. Go east 0.4 miles, and turn right at the light, onto Bascom Avenue. At the next light, turn left onto Woodard Road. At the first stop sign, turn right onto Twilight Drive. Go three blocks, cross Sunrise Drive, then turn left into the park.

From Hwy.85, take the Bascom Avenue exit. Go north about 0.2 miles, and turn right at the first traffic light, onto White Oaks Road. At the first stop sign (another 0.2), turn left onto Twilight Drive. You will now be passing the park. Turn right at the first driveway, into the parking lot.

For more about SJAA, visit our web site at: <http://www.seds.org/billa/sjaa/sjaa.html>

The Sonoma State University Department of Physics and Astronomy

Present

What Physicists Do

Physics is what physicists do late at night

Mondays at 4:00 p.m.

Darwin Hall Room 108

Coffee at 3:30 p.m.

- March 20 Computer Simulations of Geomagnetic Field Reversals
Dr. Gary Glatzmaier of the University of California, Santa Cruz will present three-dimensional, time-dependent computer simulations of the geodynamo which help us understand the generation of the Earth's magnetic field in the outerfluid core, the super-rotation of the solid inner core, and magnetic dipole reversals.
- March 27 The Search for WIMPS
Dr. Blas Cabrera of Stanford University will describe the use of a new generation of superconducting detectors in the search for dark matter in the form of weakly interactive massive particles.
- April 3 A Physics Student's Tool Kit for Industry
Angela Duprez of Sonoma State University will explain how a little knowledge of thin films, fiber optics, and LABView helped her to complete an automated test station at Optical Coating Laboratory, Inc. for her summer internship.
- April 17 Electronic Paper: The Physics and The Human Issues
Nicholas Sheridon of Xerox Palo Alto Research Center will present the technology of the Gyricon and other approaches to electronic paper and will discuss the forthcoming impact on human culture.

Y2K - Yosemite Star Party

We have been very fortunate to draw the June 30th, July 1st, and July 2nd weekend, for a full, three day weekend in Yosemite. **The moon will be a new moon on Saturday night.** This new moon weekend is the only new moon weekend during the entire Glacier Point Y2K summer program. Please join us for this very special astronomical event.

The rules to apply for this SFAA function are still very simple:

1. This trip is **open to SFAA members, their immediate families and their significant others, only**; friends, neighbors, relatives, etc. are specifically **not** invited. SFAA is providing service in astronomy to the rangers in return for free camping facilities with guaranteed reservations; it is not meant to be a free vacation for SFAA members or non-SFAA guests.

2. Each SFAA member must **bring at least one astronomical grade telescope to operate** and share with the general public on all three nights. The ranger's and the SFAA rules strictly prohibit tagging along without a telescope or bringing a telescope and not participating. Binoculars will not be accepted in lieu of this one telescope requirement, noted above.

3. The total amount of adults permitted in this group campsite is **strictly limited to 30**. Children 15 years and under are not counted towards the 30 maximum. Please, **no pets**. This year, the SFAA will be required to present names of the participating astronomers, in advance, for posting at the entrances to the park. **Those who do not have their name posted will have to secure their own site for camping.**

4. Cut off and **return the application stub below** with the correct fee to save your reservation. This is on first come - first served basis with a preference for those who have contributed to the trips in the past. A basic fee of \$5.00 is charged per adult (children 15 years and under are free). This fee is not refundable. The money will go into our Yosemite General Fund. Yosemite Park fees have been waived for us during our stay.

5. Remember, camping on **Glacier Point, in July, will have temperatures into the low 30's at night (3:00am / 4:00am)**. Prepare for this mountain environment. Since we can park our cars near our tents, bring plenty of warm clothing and sleepware; you may need it. Also, quiet hour at Yosemite begins at 10:00 pm, and we have to be at Glacier Point, with our telescopes ready at 7:30 pm. **Leave yourself time to unload your telescope and equipment at the turnaround and take your vehicle to the parking lot. There is no parking in the turnaround area. Due to this noise restriction, we will not be allowed to set up our tents or camp after the star party concludes. Please arrive at our campground in the early evening - early enough to set up camp before 7:00 pm or you will be required to sleep in your vehicle. There are no exceptions to these rules. The SFAA will strive to be good neighbors in Y2K.**

Cut here

.....

SFAA Member.....Telescope.....

No. of adults @ \$5.00 ea. =.....Total enclosed.....

Make checks payable to: **San Francisco Amateur Astronomers**

Send checks to: **Bob Levenson, Yosemite Trip Coordinator
237 Bellevue Avenue
Daly City, CA 94014**

Any questions?? Call Bob Levenson, Yosemite trip coordinator, (415) 584-5756

Morrison Planetarium/AANC Symposium 2000

Registration Form

A DATE WITH THE UNIVERSE

SATURDAY, MARCH 25, 2000

9:00 AM TO 5:00 PM

WHAT MYSTERIES MIGHT WE SOON EXPLORE?

We have been unraveling the mysteries of the universe, only to find more mysteries...

As we stand on the threshold of a new millennium and a new century, come and look forward with us to see what the future might hold for astronomy, astronomical research, the exploration of space, and our understanding of the universe. We are poised with new techniques and new instruments to explore the past, present, and the future.

FEATURED SPEAKERS & LECTURES INCLUDE:

Dr. David Morrison, NASA Ames Research Center—Astrobiology: The Search for Life

Dr. Donald Goldsmith, Astronomer, Author—The Runaway Universe

Dr. Seran Gibbard, Lawrence Livermore National Laboratory—Adaptive Optics & Laser Stars

Dr. Karel Schrijver, Lockheed Martin – Living with a Star – Our Sun

ALSO ON THE AGENDA

A Special Amateur Observers Panel Discussion

The Introduction of a New Amateur Observer's Challenge and

The Presentation of the AANC Awards, Plus Much More!!

Mail completed form with a check and self-addressed stamped envelope to:

Morrison Planetarium
California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

_____ Adults \$20.00 _____ 10-18 years old \$10.00

_____ \$ total enclosed -- Make check payable to "Morrison Planetarium"

Deadline for preregistration: March 21, 2000. Admission at the door: \$25.00

Bring your own lunch, try the cafeteria, or venture out to a nearby restaurant!

Name _____

Address _____

City/State/Zip _____

If you are a member of an astronomy club, which club?

Day Phone (_____) _____ E-mail address _____

More info: (415) 721-9630; <http://aanc-astronomy.org>

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, 13 Mabry Way, San Rafael, CA 94903

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

- \$25 enclosed, individual membership
- \$30 enclosed, foreign membership
- \$30 enclosed, family membership
- \$30 enclosed, institutional membership
- \$8 enclosed, youth membership (under 18)

Select one category:

Email address:

Address:

Name: Telephone:

San Francisco Amateur Astronomers Membership Application

San Francisco Amateur Astronomers

c/o Morrison Planetarium
California Academy of Sciences
Golden Gate Park, San Francisco, CA 94118

In This Issue of SFAA's
Above the Fog

- **Leonids, Part 4**
- **Astronomy Day**
- **Stargazing Getaway**
- **Comet Comments**
- **SJAA Auction XX**
- **Yosemite Star Party**
- **A Date With the Universe**