

# ★ ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

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San Francisco  
Amateur Astronomers



Sharing the Wonders  
of the Universe



**Information Hotline**  
(415) 566-2357

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



**Jane Houston Jones**  
**Guest Speaker**  
**General Meeting, June 21**

Jane Houston Jones is a member of the SFAA and many other Bay Area Astronomy clubs, from Santa Rosa to San Jose. She volunteers with several Northern California schools as part of The Astronomical Society of the Pacific's (ASP's) Project Astro program which brings astronomy to fourth through ninth grade classrooms. She is also the president of the Astronomical Association of Northern California (AANC), which includes 25 bay area astronomy clubs.

Jane will be our guest speaker on Wednesday June 21; her talk will be about the 1999 NASA Multi-Aircraft Campaign to observe the Leonid Meteor Storm of which she was a participant. The June Sky & Telescope Magazine has a feature article about this Leonid Mission. Jane and Mojo's website, [www.whiteoaks.com](http://www.whiteoaks.com) additionally has a photo and article scrapbook from the NASA mission.

Note: Al Stern is out of town this month. His column will return in the July issue.

## SFAA Officers 2000

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(510) 728-1851

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(415) 928-2367

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Lorrie Boen (415) 921-1432

### Telescope Loans

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## 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](mailto: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**

June 14 – 7:00 p.m. Western Addition Library – corner of Scott & Geary Sts. SF

### **SFAA Club Meeting**

June 21 at 7:30 p.m.

Morrison Planetarium, Golden Gate Park

### **City Star Party**

June 10 at 8:00 p.m.

### **Mt. Tam Star Party**

June 3 at 8:30 p.m.

July 1 at 8:30 p.m.

COMET COMMENTS FOR MAY 2000

By Don Machholz

More comets have been found by the SOHO satellite, while LINEAR has discovered a faint, small comet. No bright comets are in our sky again this month.

This is a slow time of the year, comet-wise. The comet that is expected to be the brightest of the year-Comet LINEAR (C/1999 S4)- is new to the solar system. This means it burned off tons of volatile material while far from the sun, giving the impression that it is a bright comet. It may brighten to only magnitude 5 or 6. Remember Comet Kohoutek! We have a couple more comets that should be visible late in the year. Comet McNaught-Hartley (1999 T1) may approach magnitude 6 late this year, but it will be far south and within 70 degrees of the sun until then. Periodic Comet Encke will be briefly visible to each Hemisphere late in the year.

SOHO images revealed ten more comets in the past month. Five of them were from images taken in 1999. Nine are from the Kreutz family of sungrazers. Various people found these comets, among them are: M. Oates, D. Biesecker, A. Vourlidas, M. Meyer, T. Lovejoy, J. Shanklin, and K. Cernis.

The LINEAR program recently found a comet that may be of short period. Comet LINEAR (C/2000 G1) is presently only 30 million miles from us but at a faint magnitude 17. That's a small, faint comet!

COMET HUNTING NOTES: How many comets are discovered visually by amateurs each year? In the past 25 years there have been 81 visual discoveries, or 3.24 per year. From 1975 through 1984 there were 33 finds, with 34 comets from 1985 through 1994. The rate slowed a bit during the five years 1995-1999, with 14 finds, or 2.8 per year. It will be interesting to see how this will change in coming years with competition from the automated programs.

This is my last issue of Comet Comments. After twenty-one years of writing this column I am now at the point where it is often difficult for me to write an intelligent, interesting and timely article each month. At the same time there seems to be less need for this type of comet news on a monthly basis. The Internet can substitute for the things I write, and more rapidly too. I want to thank you for being an attentive audience.



**The Astronomical Society of the Pacific** *presents*

*Universe 2000 Expo*

July 15-16, 2000

Pasadena Convention Center, Pasadena, California

For more information, visit the web site at [www.aspsky.org/meetings.html](http://www.aspsky.org/meetings.html)

Or write to ASP, 390 Ashton Avenue, San Francisco, CA 94112

## Australian Scopeabout

By Jane Houston Jones

Every year since 1993, the Astronomical Society of New South Wales (ASNSW) has hosted the now famous South Pacific Star Party (SPSP) at Wiruna, their dark sky site. The eighth annual SPSP was held over the weekend of March 31 - April 3, 2000. The intrepid astro-honeymooners, Jane and Mojo were speakers at this year's South Pacific Star Party. We mingled with the near 400 observers attending the event. We'll regale you with our descriptions of the views of the Milky Way another time. Imagine Scorpius on one horizon, Orion on the other horizon and the Southern Cross, Crux and the Eta Carina nebula overhead! We'll drop names of those famous astronomers who we rubbed shoulders with on another occasion. But first, you'll have to read the travelogue! This time we'll take you on an Australian walkabout, I mean a scope-about through the great observatories of New South Wales, Australia. The ASNSW website, <http://www.ozemail.com.au/~asnw/> is a great place to bookmark. You'll love to refer to it for armchair astronomy or travel plans. You might even make some new email friends down under!

On the way from the Sydney airport is the first observatory on our scope-about. An hours drive north west of Sydney is the ASNSW's other club observatory, Crago. Crago, the ASNSW's "local" observatory, is located at Bowen Mountain, near North Richmond. Crago delivers great dark and relatively steady skies. An observatory with a high-class 16" f/7 Dobsonian is housed in a large rotating dome, which is of superb quality, and gives fantastic views of the sky. Website: <http://www.ozemail.com.au/~asnw/crago/crago.htm>

The observatory of 19th century amateur astronomer John Tebbutt (1834 - 1916) was our next stop on the way to the Star Party at Wiruna. It stands 57 km Northwest of Sydney. His telescope, an 8-inch Grubb refractor, is still housed at his observatory in Windsor, NSW. Both the wooden and the brick observatory still stand and the house, built in 1845, are still owned by the Tebbutt family. He discovered the great

comets of 1861 and 1881, and wrote hundreds of papers on astronomy. Tebbutt and his observatory were featured on one face of the Australian 100 dollar note for a while. Website: <http://www.walkabout.com.au/fairfax/locations/NSWWindsor.shtml>

Next, we drove to Wiruna (Aboriginal for "Sunset") the ASNSW 43-hectare dark sky observing site near Ilford. A 3-hour drive north west of Sydney will take you there. The 107 acre site has two main fields, the eastern field being the main observing field (about 25 cleared, level acres), where most members set up their telescopes, and the western field with a small house, and a small cleared observing area for observers who like to observe with perhaps a little music, or who are not too worried about short exposure to a little light. A radio telescope and the pier for an 8-inch refractor stand nearby as club member projects. Not a bad site for a honeymoon, wouldn't you agree? Here we unpacked our sleeping bags and settled into the "honeymoon suite" in the small house near the western telescope field. Our first night in Australia ended after a photon-gobble of the wonderful southern sky outside the small house. Website: <http://www.ozemail.com.au/~asnw/wiruna/wiruna.htm>

Three hours drive north west of Ilford and the Wiruna observing site lies Coonabarabran, the astronomy capital of Australia. Coonabarabran is an aboriginal word meaning inquisitive man. Siding Spring Observatory is a collective name for all telescopes sited on Mt. Woornut, near Coonabarabran. A radio telescope (nearby at Mopra) is part of the Australia Telescope National Facility. The Anglo-Australian Observatory, with the 3.9 metre AAT telescope and the 1.2 metre UK Schmidt Telescope perch on a hilltop in the majestic Warrumbungle National Park. Six other telescopes share the Siding Spring site, 400 KM north of Sydney. These include the Uppsala Schmidt telescope moved from Mt. Stromlo, with its spherical mirror. This telescope was moved from Mt. Stromlo in 1980 due to Canberra light pollution. The 2.3 metre Advanced Technology Telescope is also here. The Observatory was established here at Siding Spring to take advantage of the extremely dark skies, and to provide the opportunity for astronomers to observe the southern sky where some of the most

exciting objects are found, including the centre of our own Milky Way Galaxy and our neighbours the Magellanic Clouds. The Siding Spring Exploratory is open 7 days from 9:30 to 4:00 PM. Visit the Exploratory and walk around and view the 3.9 metre telescope from the gallery on the main observing floor. Outside the dome, the metal shipping case for the 3.9 metre mirror rests on the plaza. Ironically, it is labeled "fragile", with a wine glass painted on the bulky exterior.

Website: <http://www.aao.gov.au/> Don't miss a drive through the Warrembungles National Park, too!

Also in Coonabarabran, is a commercial observatory. Skywatch Observatory and Miniature Golf offers just what you think it will, unfortunately. Website: <http://www.lisp.com.au/~skywatch/minigolf/index.html>

Next on the scope-about is Narrabri, where the Australian Telescope National Facility is located. A set of 6 radio antennas (22-m diameter) is equipped with 6/3-cm and 13/20-cm receivers. The visitor center was unmanned when we visited, but there was great interpretive material and three great videos. Two large dishes facing each other on the lawn allowed us to whisper sweet nothings into the dish and for the recipient to hear the romantic words bounced off the parabolic dish! Just like the whispers from space cradled in the great radio receivers. Website: <http://www.narrabri.atnf.csiro.au/>

The most magnificent of the Australian telescopes is the Parkes Radio Telescope. Parkes is located couple hours south of Narrabri on the Newell Highway, or 400 km west of Sydney. 37 years old, 64 metres or 210 feet wide, this telescope mostly studies the hydrogen, ammonia, silicon monoxide stellar dust and stars and galaxies in the Milky Way. Website for the great Visitors Discovery Centre <http://www.pks.atnf.csiro.au/home.html>. Website for the Parkes Observatory: <http://www.pks.atnf.csiro.au/home.html>.

The capital of Australia, Canberra is the home of the Mount Stromlo Observatory. The Stromlo Exploratory is open 365 days a year and has a great cafe! Together, Mount Stromlo and Siding Spring Observatories form one of the leading optical astronomical observatories in the world, 600 km apart. Their main areas of research

interest are in stellar and extra galactic astrophysics - in particular, the structure and evolution of stars and galaxies, the origin and development of the Universe as a whole, and the physics of the tenuous material between the stars. The Observatories have a total staff of about one hundred; most of who work at Mount Stromlo, where the main workshops and computer laboratories are located. There are about twenty five astronomers on the staff, and an equal number of post-graduate students undertaking PhD studies. Website: <http://msowww.anu.edu.au/>

South of Canberra is the NASA Deep Space Communication Complex. The Canberra Deep Space Communication Complex (CDSCC) is responsible for the tracking of spacecraft that partake in interplanetary missions. The Complex is a NASA facility operated under a USA-Australian Government agreement which involves JPL, CSIRO Australia and BAE Systems Australia. It is adjacent to the Tinbinbilla National Park, where you can glimpse the elusive Koala, or a mob of Kangaroos! Opened in 1965, the Complex is home to the largest steerable antenna in the Southern Hemisphere and the former Honeysuckle Creek antenna which received the first pictures of Neil Armstrong's famous 'Walk on the Moon'. The facilities at CDSCC are similar to those at Madrid in Spain and Goldstone in California. These three complexes, together with the Jet Propulsion Laboratory form NASA's Deep Space Network. Website: <http://www.cdsc.nasa.gov/>

There are many observatories that we missed. We drove right by some, but we saved some observatories for another scopeabout. Visit the ASNSW website for a comprehensive list, or do your own surfing. Website: <http://www.ozemail.com.au/~asnsw/misc/observat.htm>

We ended our scopeabout back in Sydney. The Sydney Observatory is located on Observatory Hill, in the Rocks, not far from Sydney's famous Circular Quay. Sydney Observatory website: <http://www.phm.gov.au/observe/>

It was time for some terrestrial viewing. Sydney is full of history, beauty and great people. A final stop at the Binocular and Telescope Shop at 55 York Street was a fitting end to our astro-honeymoon. Telescope maker Don Whiteman

and owners Mike and Lily Smith, welcomed our return and we signed the guest register. Why, we hadn't seen these folks for nearly a week, when we

were observing together at the South Pacific Star Party of 2000. Website: <http://bintel.com.au>



## Mt. Tamalpais State Park Astronomy Programs

*Lectures held in the Mountain Theater  
Observing is in the Rock Springs Parking Area*

JUNE 3 at 8:30 p.m. MARIA MITCHELL (as portrayed by Tinka Ross)  
"A Cometary Rise to Fame"

The story of America's first woman astronomer and the comet that started her career.

JULY 1 at 8:30 p.m. DR. DANA BACKMAN  
Researcher, NASA-AMES/ Assoc. Professor, FRANKLIN & MARSHALL COLLEGE  
"Planets and Hints of Planets Around Nearby Stars: Is Our Solar System Unusual or Normal?"  
The list of known extrasolar planetary systems is steadily growing, yet none of them really resembles the one we live on. What does this mean for our understanding of how common or rare planets like the Earth may be?

Information: (415) 455-5370, (415) 388-2070  
Same Day Hotlines: (415) 566-2357, (415) 455-5370 (messages after 4:00 p.m.)  
Address: MTIA/Astronomy Programs, PO Box 3318, San Rafael, CA 94912

If you are a Mt. Tam volunteer, please call in your hours to Bridget Mason at (415) 361-6527

### *SFAA 2000 Literary Award*

*Every SFAA member is eligible to enter. All entries will be distributed to every member for judging after the closing date of August 31, 2000. First, second and third place winners will be presented at the SFAA Annual Awards Banquet in January 2001.*

*Entries must be limited to 750 words and be received by August 31, 2000. All entries need to be submitted in print ready format, on a 3.5" diskette or zip disk, or as an attachment to an email. Please do not type your article in the body of the email, attach it as a Word (any version) document or in rich text format. All disks will be returned to the owners. Entries on disk can be mailed to Lorrie Boen at 765 Geary Street #302, San Francisco, CA 94109, or email entries can be sent to [LorrenLee@aol.com](mailto:LorrenLee@aol.com).*

*Any articles already printed in "Above the Fog" in 2000 can be submitted, provided it is within the 750-word limit. Authors may edit longer articles in order to enter them.*

*We want to hear about your experiences. Good luck to all!*

*Sponsored by our friends at*



# Y2K - Yosemite Star Party

We have been very fortunate to draw the June 30th, July 1<sup>st</sup>, 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

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:

\_\_\_\_\_  
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## **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

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**In This Issue of SFAA's  
Above the Fog**

- **Final Comet Comment**
- **Australian Scopeabout**
- **Mt. Tam Speakers**
- **SFAA Literary Award**
- **Yosemite Star Party**