ABOVE THE FOG

• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

VOL. 49, No. 12 – December 2001

General Meeting
December 19, 2001

Member's Night

This is your night. If you have anything to share at the meeting, please contact our club president, Al Stern.

Astronomical Art Award

2001 is the inaugural year for this award. Astronomy based art of any description is allowed, except live acts and billboard sized pieces. Please bring your artwork to the meeting for judging.
Toney Burkhart is running the competition.

Photography Award

Please bring your astrophotography entries to the meeting for judging. We have had many beautiful photographs in past years and look forward to seeing yours. Dennis Tye is again in charge of this award.

Literary Award

The entries for the Literary Award are a supplement to this issue. The deadline for voting the best entries is December 19. You can cast your vote by mail or bring it to the meeting.

Election Voting Deadline

The ballot for club officers and board members is later in this edition. Please take the time to cast your vote. You can return the ballot to the club address or bring it to the meeting.

Happy and Safe Holidays to all SFAA members and their families!

San Francisco
Amateur Astronomers

Web Page:
www.sfaa-astronomy.org

Sharing the Wonders
of the Universe

Information Hotline
(415) 566-2357

2001 Club Officers & Contacts

President	Al Stern (415) 929-7035	*City Star Party Coordinator*	Toney Burkhart
Vice President	Bill Stepka (415) 928-2367	*Membership & Subscriptions*	Chelle Owens (415) 479-5313
Secretary	Jason Burkhart	*Bulletin Editor*	Lorrie Boen (415) 921-1432
Treasurer	Chelle Owens (415) 479-5313	*Telescope Loans*	Pete Goldie (415) 206-9867
Honorary Director	John Dobson	*SFAA Website*	www.sfaa-astronomy.org
Board Members	Lorrie Boen Jason Burkhart Dan Christian	Nancy Cox Rita Nossardi Stern	Fraser Reich Dennis Tye
Alt. Board Members	Randy Taylor	Jim Webster	

Club Telescopes

The SFAA owns 3 club loaner telescopes, Dobsonian/Newtownian reflectors: 6" f/10, 8" f/7, and 10" f/8. These are available for extended periods (30 days or more) to SFAA members. These are generally very fine scopes, easy to use and well-suited for deep sky, planets, and star parties. The loaner custodians are Pete Goldie & Sarah Szczechowicz, located in San Francisco. If you are interested in borrowing a scope, or if you have items you can donate for the loaner program (eyepieces, star maps/books, collimator, etc.) please contact them via email (pg@lbin.com) or phone (415-206-9867). Email communication is preferred and strongly recommended for a quick and accurate reply.

Important Dates

Board Meeting – December 12 - 7:00 p.m.
Western Addition Library, Scott & Geary Sts., SF

SFAA General Meeting – December 19
Morrison Planetarium, Golden Gate Park
Refreshments at 7:00 p.m.
Speakers begin at 7:30 p.m.

Mt. Tam Star Party
2002 schedule in this issue

City Star Party
2002 schedule in this issue

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

From the President

The December meeting is member's night. This is an opportunity for club members to share their astronomical experiences, knowledge, and/or tools with other club members by way of a short talk. Please contact me so I can put you on the agenda.

We will also hold the election of the club officers and the board of directors at the December meeting.

The Astronomy Art contest and the Annual Photo contest will also take place at this meeting.

The tour of the Stanford Linear Accelerator Center on November 3rd was a very interesting tour. Those who attended got a large dose of particle physics and saw the workings of a very unique facility. Our thanks go to Jim Webster for arranging this tour.

The January annual awards dinner and induction of club officers will be February 2, 2002 at The Basque Cultural Center (same place as last year). No host bar at 6:30 PM and Dinner is at 7:00 PM. The food is very good, the accommodations for us there are what we need, and there is plenty of parking. The price per person and the menu selection options will appear elsewhere in this and the January bulletins.

Mt Tam will be open to us for the night of the Leonids meteor shower on Saturday evening November 17, 2001. A group is also planning to go to Lake Sonoma. There is information about the Lake Sonoma plans on the website. Whatever your intentions this is a chance to have some fun at a different sort of observing session. So please plan to participate in this event. Bring a lounge chair, warm cloths, and sit back and watch the night sky with hopefully lots of meteors. A meteor storm is a possibility this year and we on the West Coast are in a good position to observe the storm if it should occur. Should the storm occur you sure do not want to miss it. Lets hope for clear sky's and a nice evening at Mount Tam and at Lake Sonoma.

A very exciting opportunity has been made available to the SFAA thanks to the work of Bill Stepka. The SFAA has reserved the Mt. Wilson 60-inch telescope for Saturday night of January 19, 2002. Looking at objects with a four inch EYEPIECE; some of us have telescopes with primary mirrors about that size; through a telescope that saw first light in 1908 is so spectacular that it is hard to describe in words. It is not seeing the Red spot on Jupiter, it is seeing the swirls within the Red spot. And this observing session will be limited to about 20 members. There is also a 100-inch telescope there that you might be able to look at just as an added attraction. To take advantage of this unique event contact Bill Stepka if you want more details like costs and arrival arrangements on the Mountain. (Mailed copies of 'Above the Fog' have Bill's phone number there.)

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Observing the Moon: the Modern Astronomers' Guide

Review by Michael Portuesi

For me, learning the Moon's surface feels much like learning the constellations once did. Every mountain, crater, and valley has a distinctive name, shape and placement, much like the stick-figure denizens of our celestial sphere.

Not long ago, I bought a lunar atlas (Antonín Rükl's *Atlas of the Moon*) to get acquainted with the lunar surface. The atlas was useful for identifying surface features, but wasn't enough by itself. I wanted a guide to explain the scenes at my eyepiece and bring them to life. To fill this role, I chose *Observing the Moon: the Modern Astronomer's Guide*, by Gerald North.

The book opens with the basics you would expect in any lunar text - its orbit, phases, eclipses, and librations. I found this chapter satisfactory. Other chapters provide a short history of lunar mapping and exploration, and basic lunar science. These discussions were too short and not deep enough to satisfy me. For instance, the author provides a basic vocabulary of lunar features, but neglects to explain the classification system and terminology that lunar geologists use to describe craters. The Rükl atlas spells this system out. North uses it when

describing specific lunar features, but never provides full details.

Practical advice for the lunar observer is the main focus of the book. North tells the reader what types optical gear work best for lunar observing. He makes many references to his previous book, *Advanced Amateur Astronomy*, for details on telescopes and other gear. That's legitimate, as this book's focus is on lunar observing and not on amateur astronomy hardware. But you will need an additional reference to make the most of the equipment advice presented here.

Lunar drawing is not North's forte by his own admission, but he makes up for this weakness by including the work of several outstanding lunar illustrators. North describes the techniques the illustrators use to make their lunar drawings, which I found very interesting. Still, I almost wish North had turned this section over to the expert illustrators to write first-hand.

Film, CCD and video imaging seem to be where the author has the most personal expertise to share. Several pages cover topics such as calculating exposure times for photographic images, and choosing the proper optical path for imaging. While this coverage is good, digital still cameras and webcams are absent - a curious omission for a book published in late 2000. The author could have worked harder to keep his manuscript up-to-date with developments in technology.

As with lunar drawing, North is weak when dealing with computers and digital image processing. But here North did not rely on others to help fill his gaps in expertise. A complete computer novice would gain something from the discussion. Otherwise, the advice provided is just a little too unsophisticated to be useful. References to specific computer hardware and software products are already obsolete, as are some of the techniques. For instance, the author devotes four pages to photographing your computer screen, including example screen photographs. In a world where even the cheapest ink-jet printers can generate high-quality hardcopy images, this advice is next to useless.

By far the best section of the book is the guided tour of the lunar surface. North chose his list of the most striking features, and arranged them in a narrative spanning nearly 200 pages. Each lunar feature is accompanied by photographs, drawings, and a discussion. The author often points out subtle details and structures that you might otherwise miss, and includes observing tips within the descriptions. North shares his and other scientists' theories, and invites the reader to draw their own conclusions from the observed features.

Many quality illustrations make the guide well-suited for the armchair observer as well as the eyepiece observer. Amateur photographs and drawings are featured alongside pictures taken with professional telescopes, space probes, and Apollo orbiters. They show the differences between photographic, CCD, and video imaging techniques and compare them with expert hand drawings.

Often, the author includes several views of the same feature under different lighting conditions, such as lunar sunset or sunrise versus a high sun angle, such as at full Moon. The comparison between views underscores the dramatic difference in appearance a lunar feature can have as the lighting angle changes. Differences in appearance due to libration are also illustrated in this comparative fashion.

The lunar tour does have problems. First and foremost is the lack of an adequate lunar map. The near-side map provided in the text is crude, small and amateurish. It is so poor, in fact, that I am surprised the editors allowed the author to include it in the book. Instead, I used Rükl's atlas as a reference while reading the descriptions, which worked nicely.

Secondly, the tour could have been organized to better benefit the observer. Lunar features are ordered alphabetically. A better approach would order the features according to the best times in the lunar month to observe them. Where a feature benefits from observation at different times, cross-references could avoid duplication. This type of organization would help observers plan their sessions.

Overall, I would like better references to outside resources. At several points, the author refers to magazine and journal articles, other books, and resources such as maps. Unfortunately, there is no bibliography to collect these references in one place. Chapter 7 is a bibliography of sorts, but does not include references from other chapters. At some points, North delegates too much to outside resources, thinning his own presentation as a result.

Worse, North lists several maps, globes and atlases, then admits that he has no experience with them and cannot make recommendations! I can get this same list of resources from the Sky Publishing catalog, so I expect to see some advice from the author to add value to the discussion. The author stumbles badly here.

My primary criticism of the book is that the author apologizes for the brevity of his narrative way too often, at least once per chapter, sometimes more. North was keenly aware of the book's biggest weakness - that aside from the lunar tour, it doesn't cover any one topic in sufficient depth. I am surprised he did not adequately address the problem. It would have been better to omit some material entirely, in order to focus on the most essential topics. As a visual observer, I wish that North had cut the pages on computers and digital imaging (the book's weakest point) and devoted the space towards lunar science and geology.

Observing the Moon does have much to offer the beginning lunar observer. The lunar tour's shortcomings do not significantly detract from its suitability as an observing guide. The worst of these flaws can be remedied by purchasing a good lunar atlas to use with it. In my opinion that is a requirement, since the book has no serious lunar map to speak of. As a beginning lunar observer, I have learned a great deal, and I look forward to more time at the eyepiece with this book as my guide. But I can't overlook the flaws that detract from its potential. The tour is worth taking, but for the remainder of the topics you will likely find better coverage elsewhere.

Observing the Moon: the Modern Astronomer's Guide
Gerald North, Cambridge University Press, 2000
381 pages, ISBN: 0 521 62274 3 hardback

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Morrison Planetarium's

Benjamin Dean Lecture Series

presents

December 11
Dr. Gia Dvali
New York University
The Universe's Unseen Dimensions
Could the visible world lie on a membrane floating within a higher-dimensional space?
The extra dimensions would help understand the inexplicable weakness
of gravity and help us unify the forces of nature.

January 29
Dr. Alexander Vilenkin
Tufts University
Eternal Inflation
The eternal nature of inflation – an epoch of accelerated expansion driven by the repulsive energy of a "false vacuum" – has profound implications for understanding the Universe.

All programs begin at 7:30 p.m. in the Planetarium - Tickets are $3.00 each
DEAN LECTURE INFORMATION LINE at (415) 750-7141

SFAA Annual Awards Dinner
Saturday, February 2, 2002
No Host Bar - 6:30 p.m.
Dinner – 7:00 p.m.
Basque Cultural Center
599 Railroad Ave, South San Francisco
(650) 583-8091

Our Banquet Menu ~

Prime Rib with Scalloped Potatoes & Vegetables ($27.00)

Breast of Chicken Chasseur with Vegetables & Rice ($22.00)

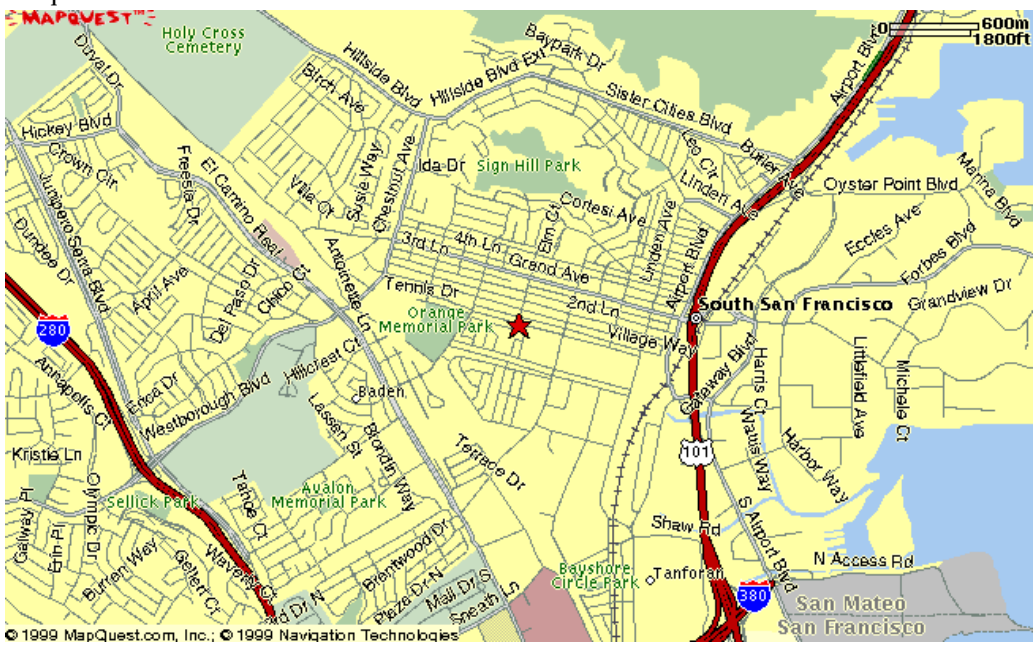
Vegetarian Pasta ($19.00)

All meals include Soup, Salad, Bread & Butter, Ice Cream and Coffee. Price includes tax and gratuity.

Please send a check or money order, along with your choice of entrée, to Lorrie Boen at 765 Geary Street #302, San Francisco, CA 94109 by **January 26, 2001**. Any requests received after this date cannot be guaranteed.

Directions to the Basque Cultural Center from Highway 280 coming from San Francisco.

Take the Westborough exit near South San Francisco. Turn left at the light. (heading toward San Francisco Bay). Turn right at El Camino proceeding South. Two or three blocks later turn left onto West Orange heading toward San Francisco Bay. Go for some distance (what would be about 5 blocks except there are almost no side streets) Turn right onto Railroad Ave. Drive a few blocks and then turn right into the parking lot of The Basque Cultural Center at 599 Railroad Ave.



Mt. Tamalpais State Park Astronomy Programs

2002 Pocket Calendar
Planispheres
Keychain Lights

The Pocket Diary is crammed full of all kinds of astronomical and historic trivia. Moon information is given daily, solar system "flipbook" diagrams and data weekly, special sky events like eclipses, meteor showers, conjunctions, etc. when they happen. And, best of all, the information is calculated for the Bay Area. Mt. Tam events are also listed. The Pocket Diary can be viewed at http://members.tripod.com/~apd2/apd.htm. Also available are the 5" and 8" planispheres and keychain lights.

.Half of the purchase price can be taken as a donation to the MTIA Astronomy Program.

Use the order form below:

Send _____ 2002 Astronomical Pocket Diary ($10.80 per diary)

_____ 8" Night Sky Planispheres ($11.00 per dial)

_____ 5" Night Sky Planispheres ($6.50 per dial)

_____ Keychain Lights ($4.50 per dial)

_____ donation of $_____

Enclosed $_____(check payable to MTIA)

NAME_____

ADDRESS_____

CITY_____STATE_____ZIP_____

Email_____

Mail to: MTIA/Astronomy Programs
c/o Tinka Ross, 89 Dominican Drive, San Rafael, CA 94901

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Mt. Wilson Observatory Excursion

The SFAA has reserved the 60 inch telescope on Mt. Wilson, near Pasadena, for the night of Saturday, January 19, 2002. If you have never been to this historic installation, this is your lucky day! The party is limited to twenty club members, but guests will be permitted if space is available. The cost of renting the telescope is $900 for the night, so each member will have to pay $45, as well as their own transportation costs. Early booking of airfare makes this a reasonable option for travel. The weather can be very cold and snow is not unusual at this time of year. Money will be refunded if the night is cancelled due to bad weather. Reservations must be made by contacting Bill Stepka, SFAA Vice President, by email at stepka@aol.com.

SFAA 2002 Calendar of Events

January

9 Board Meeting 7:00 p.m.
16 Special Planetarium Show 7:00 p.m.
19 Special Event Mt. Wilson Trip

February

2 Annual Dinner & Awards 6:30 p.m. NH Bar 7:30 Dinner
13 Board Meeting 7:00 p.m.
16 City Star Party 5:30 p.m.
20 General Meeting & Lecture 7:00 p.m.

March

13 Board Meeting 7:00 p.m.
16 City Star Party 6:00 p.m.
20 General Meeting & Lecture 7:30 p.m.

April

10 Board Meeting 7:00 p.m.
13 Mt.Tamalpais Star Party 8:00p.m.
17 General Meeting & Lecture 7:00
20 City Star Party 8:00 p.m.

May

8 Board Meeting 7:00 p.m.
11 Mt Tamalpais Star Party 8:30 p.m.
15 General Meeting & Lecture 7:00 p.m.
18 City Star Party 8:30 p.m.

June

8 Mt. Tamalpais Star Party 8:30 p.m.
12 Board Meeting 7:00 p.m.
15 City Star Party 8:30 p.m.
19 General Meeting & Lecture 7:00 p.m.

July

10 Board Meeting 7:00 p.m.
13 Mt.Tamalpais Star Party 8:30 p.m.
17 General Meeting & Lecture 7:00 p.m.
20 City Star Party 8:30 p.m.

August

10 Mt Tamalpais Star Party 8:30 p.m.
14 Board Meeting 7:00 p.m.
17 City Star Party 8:00 p.m.
21 General Meeting & Lecture 7:00 p.m.

September

7 Mt.Tamalpais Star Party 8:00 p.m.
11 Board Meeting 7:00 p.m.
14 City Star Party 7:30 p.m.
18 General Meeting & Lecture 7:00 p.m.

October

9 Board Meeting 7:00 p.m.
12 Mt. Tamalpais Star Party 7:30 p.m.
16 General Meeting & Lecture 7:00 p.m.
19 City Star Party 6:30 p.m.

November

13 Board Meeting 7:00 p.m.
20 General Meeting & Lecture 7:00 p.m.

December

11 Board Meeting 7:00 p.m.
18 General Meeting & Lecture 7:00 p.m.

San Francisco Amateur Astronomers
c/o Morrison Planetarium
California Academy of Sciences
Golden Gate Park, San Francisco, CA 94118
Tel: (415) 566-2357

BALLOT

OFFICERS AND BOARD OF DIRECTORS

2002

OFFICERS

President	❑ Bill Stepka
Vice-President	❑ Nancy Cox
Secretary	❑ Jason Burkhart
Treasurer	❑ Chelle Owens

Write-ins _____

Write-ins _____

BOARD OF DIRECTORS

❑ Lorrie Boen	❑ Al Stern
❑ Dan Christian	❑ Rita Nosardi Stern
❑ Nancy Cox	❑ Randy Taylor
❑ Art Owens	❑ Dennis Tye
❑ Michael Portuesi	❑ Jim Webster

❑ Write-ins _____

❑ Write-ins _____

VOTING INSTRUCTIONS

The club members listed above are candidates for Officers and Board of Directors of SFAA for the year 2002. Please vote for a total of four officers and a total of seven board of directors including write-ins. Voting for more than four officers or for more than seven board members per ballot will invalidate the entire ballot. Family memberships must submit a separate ballot for each voting family member. Write-ins for officers must include the candidate's name and office for which he or she is nominated.

All candidates, including write-ins, must have committed to attending at least seven board meetings and may not miss more than two consecutive meetings during the calendar year for which they are nominated.

The seven board of directors' candidates who receive the highest number of votes will become regular board members. The two candidates receiving the next highest number of votes will become alternate board members. The new Officers and Board of Directors will be installed at the Annual Awards Dinner in February 2002.

Please return your ballots to: SFAA Secretary, c/o Morrison Planetarium at the address above. Ballots must be received no later than the general meeting on Wednesday, December 19, 2001.

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

- **Members Night**
- **President's Report**
- **SFAA Annual Dinner**
- **Election Ballot**
- **Literary Award entries**
- **and more**

San Francisco Amateur Astronomers
Membership Application

Name:_____ Telephone:_____

Address:_____

Email address:_____

Select one category:

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

make checks payable to **San Francisco Amateur Astronomers** and mail to:
Treasurer, SFAA, 13 Mabry Way, San Rafael, CA 94903

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.