

Sonoma Skies

The Newsletter of the Sonoma County Astronomical Society
a non-profit scientific and educational organization

June 2003

Volume XXVII No. 6

SCAS Monthly General Meeting 7:30 pm Wednesday June 11, 2003

Proctor Terrace Elementary School, 4th Street and
Bryden Lane, Santa Rosa. Our guest speakers are:
Jane and Morris Jones

The Leonid MAC Mission: Counting meteors from 40,000 feet

Join SCAS members Jane and Morris Jones as they recount their adventure aboard the NASA DC-8 airborne laboratory in November 2002. For eight days this past November Jane and Mojo shuttled between Dryden Flight Research Center at Edwards Air Force Base, CA, Offutt AFB in Nebraska, Torrejon AFB near Madrid, Spain and back to Dryden. As part of the Leonid Multi-Instrument Aircraft Campaign (Leonid MAC) Jane and Mojo joined the 8 person IMCU - Intensified Meteor Counting Unit. Jane and Mojo will talk about the preparation for the mission, the work aboard the airborne laboratory, the followup research, data reduction and some results of their work. You will share the experience of a NASA airborne mission, flying below thousands of shooting stars against a backdrop of the aurora borealis and the full moon on the night of the last Leonid storm of our lifetime.

Jane and Morris Jones are members of several local astronomy clubs and are experienced meteor observers and sidewalk astronomers. They have enjoyed the collaboration with professional astronomers participating in the Leonid MAC for the past five years. Mojo wrote the software currently used on board the two aircraft utilized on the 2002 mission, and also used by a land-based team stationed at Steward Observatory at Mt. Lemmon, AZ.

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SCAS Membership

by Harry Linder, Membership Director
harry@sonic.net

The SCAS wishes to recognize and welcome three new members this month: Barbara Gegan, Gary Flowers and Ariana Spillane.

TO CONTINUING (OLD?) MEMBERS:

Help! Some of you have not sent in your membership renewals yet, and June 1st was the deadline. Please don't make me drop you from our membership because:

- It will make everyone mad at me,
- It will make work for me to reinstate you when you do pay up, and
- We will miss you.

Remember the cool mnemonic: **DUES ARE DUE.**

Thanks, Harry



Jane and Morris Jones aboard the NASA DC-8 flying laboratory during last November's Leonid meteor counting mission.

SCAS Membership, Renewals and Subscription Information

SCAS new membership dues are \$25 from June 1st through November 30th; and \$12.50 from December 1st through May 31st. SCAS annual renewal membership dues are \$25 per year; due and payable on June 1st each year. Membership is dropped if dues become delinquent.

SCAS Membership and Meetings

As a benefit of membership, discount subscriptions to *Sky & Telescope* and *Astronomy* magazines are available. Membership meetings take place on the second Wednesday of each month at 7:30 pm in the Multipurpose Room of Proctor Terrace Elementary School on Bryden Lane near Fourth Street in Santa Rosa unless otherwise announced in this publication. Star Parties are meetings held each month at our viewing site on the Saturday evening nearest to the new moon. The Public is invited to both.

New or renewal subscriptions for *Sky & Telescope* through SCAS: send your \$29.95 subscription check (**payable to SCAS**) along with your complete mailing address (for new subscriptions) or the *Sky & Telescope* **renewal card** and **return envelope** provided by *Sky & Telescope* (for renewals) directly to **Larry McCune, 544 Thyme Place, San Rafael, CA 94903.**

Subscriptions to *Astronomy* through SCAS occur yearly around October. Check *Sonoma Skies* for details.

Telescopes Available

As a benefit of membership, SCAS members are eligible to borrow telescopes for a \$5 a week donation. Four telescopes are available: a Celestron 8" SCT and a 5" Celestron SCT, complete with clock drive and inverter; an 8-inch Newtonian on Dobsonian mount; and a 80 mm refractor on a motorized equatorial mount. Contact Joan Thornton at 707-762-0594

Access To Palmieri Observing Site

The Palmieri Observing Site is locked to public access. For use during monthly star parties, SCAS members can obtain the combination to the gate lock to the site by contacting any board member listed to the right.

Publication

Sonoma Skies is the newsletter of the **Sonoma County Astronomical Society** (SCAS) and is published each month. Subscriptions to the newsletter are included as part of membership to the Society.

Articles, news items and member announcements for *Sonoma Skies* are welcome. The deadline for articles for next month is the 28th of this month. Submissions must be typed or, if on computer media, in a commonly used word processing and/or graphics format, and may have graphics (pictures, drawings, etc.) They are published on a FCFS basis, space permitting, and may be edited.

Editor: Ben Barker

benbarker@earthlink.net

Mail To: SCAS, P.O. Box 183, Santa Rosa, CA 95402

SCAS Elected Board

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Steven Alvernaz 762-2377

jaas1@attbi.com

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Bruce Lotz 576-7833 ablotz@sonic.net

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Harry Linder 542-9167 harry@sonic.net

Community Activities Director

Len Nelson 763-8007 lennelsn@attbi.com

Publications Director

Ben Barker 838-0238 benbarker@earthlink.net

SCAS Appointed Positions

Amateur Telescope Making

Steve Follett 542-1561 sfollett@sonic.net

Young Astronomers Advisor - Vacant

Striking Sparks Program & Sparks Day Coordinator

Coby Lafayette 829-2219 arpgal@sonic.net

Librarian

Joan Thornton 762-0594 phonyjoanie@juno.com

SCAS "Public" Star party Coordinator

Loren Cooper 525-8737 lorenco@sonic.net

SCAS Public Star Party

Loren Cooper, Coordinator (707) 525-8737

lorenco@sonic.net

Location: Youth Community Park, located in Santa Rosa on the west side of Fulton Road, between Guerneville Road and Piner Road, just opposite Piner High School.

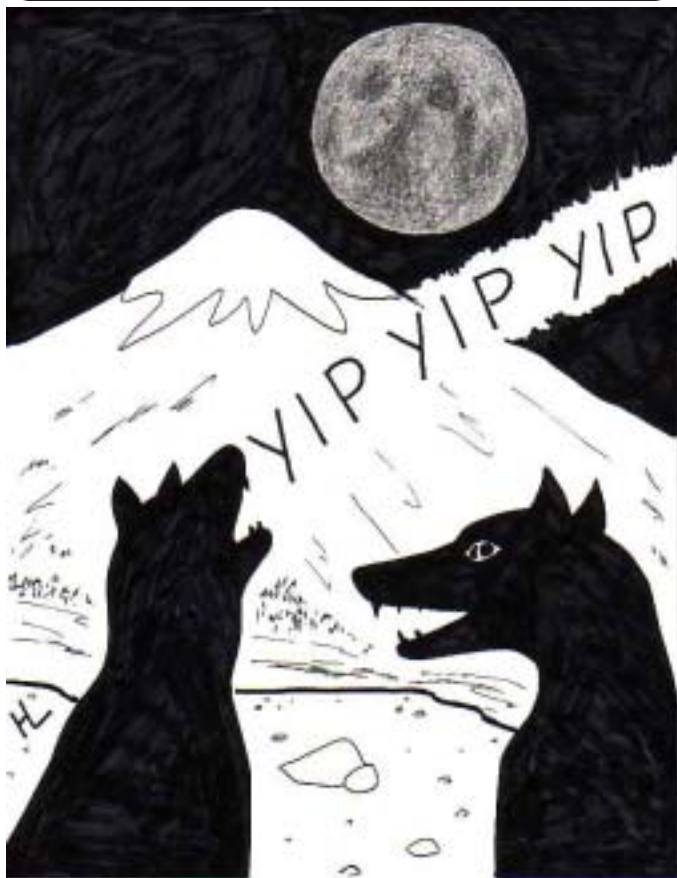
**The next SCAS Public Star Party is
Saturday evening, July 5, 2003**

Sunset: 8:32 p.m. PDT

Moonset: 12:42 a.m. PDT (7/6/03)

End Astronomical Twilight: 10:33 p.m. PDT

The Semi-Sirius Astronomer by Herb Larsen



“Well, would you look at that! Your pathetic attempt at howling has even turned the full moon red with embarrassment.”

2003 SCAS Calendar

Wed. June 11 7:30 pm General Meeting at Proctor Terrace Elementary, 4th Street and Bryden Lane, SR.
Thu. June 19 SCAS Board Meeting at LenNelson’s.
Sat. June 28 SCAS Geysers Star Party
Sat. July 5 SCAS Public Star Party, Youth Community Park, Fulton Rd., Santa Rosa
Fri. July 18 - Sun. July 20 Yosemite Astronomy trip.

SCAS Library

Joan Thornton 762-0594
phonyjoanie@juno.com

SCAS has a library of over 70 books that may be checked out by SCAS members. A book may be checked out until the next meeting or for one month. Requirements to check out a book:

1. Be a SCAS member.
2. Give me (Joan Thornton) your name and phone number.

SCAS “Geysers” Star Party

The next SCAS Star Party is Saturday evening,
June 28, 2003 (one day before new moon).

Location: Palmieri Observatory, Mercuryville, CA
 (on the slopes of Geyser Peak near The Geysers)

Altitude: ~2700 feet

Longitude: 122deg 49min

Latitude: 38deg 46min

Sun set: 8:39 p.m. PDT, rise: 5:50 a.m. PDT (6/29/03)

Moon set: 8:13 p.m. PDT, rise: 5:30 a.m. PDT (6/29/03)

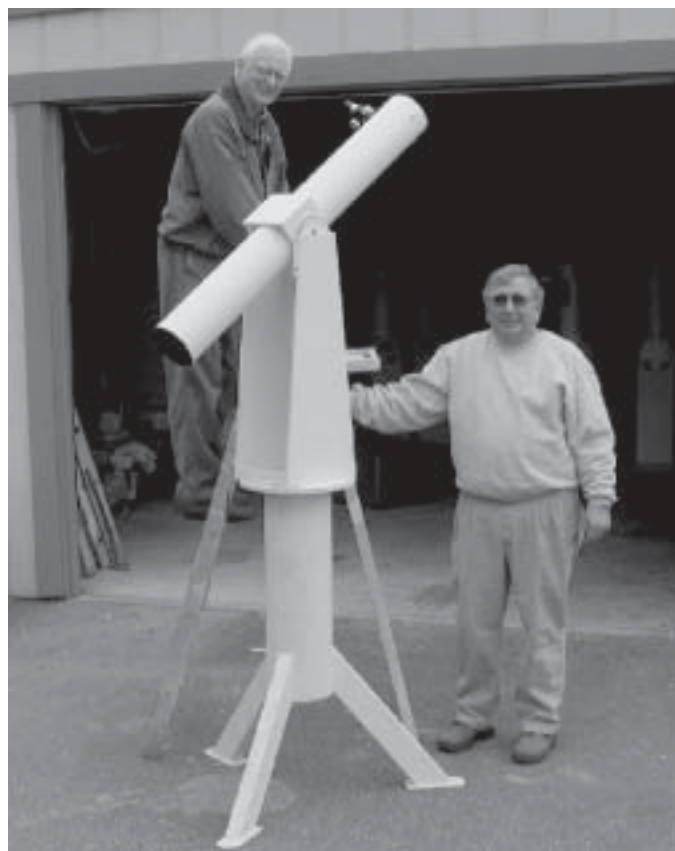
Astronomical Twilight Ends : 10:36 p.m. PDT

Begins: 3:53 a.m. PDT (6/29/03)

SCAS E-group URL

<http://groups.yahoo.com/group/scas>

2004 SPARKS SCOPE REVEALED: TO USE HIGHER TECHNOLOGY



Harry Linder and Larry McCune were recently caught testing a new base that reportedly improves seeing by reducing atmospheric thickness and clearing obstructions.

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COUNTING METEORS FROM 40,000 FEET

Jane and Mojo made TV appearances, wrote articles, and conducted outreach activities on behalf of the Leonid MAC this year and for past missions. Their website retells the 2002 MAC story with articles and images, and contains writeups and pictures from the past four years' missions as well.

<http://www.whiteoaks.com/mac-2002/>

Minor Planet 22338 Janemojo = 1992 LE

On the first day of January 1801, Giuseppe Piazzi discovered an object which he first thought was a new comet. But after its orbit was better determined it was clear that it was not a comet but more like a small planet. Piazzi named it Ceres, after the Sicilian goddess of grain. Three other small bodies were discovered in the next few years (Pallas, Vesta, and Juno). By the end of the 19th century there were several hundred.

Several hundred thousand asteroids have been discovered and given provisional designations so far. Thousands more are discovered each year. There are undoubtedly hundreds of thousands more that are too small to be seen from the Earth.

One of these little mountains in the sky, 5km 1992 LE was discovered by Carolyn Shoemaker and David Levy during a long successful observing night on June 3, 1992. They began at 20:00 and continued until 04:30 the next morning, taking 40 pictures using the 18-inch Schmidt camera atop Mt. Palomar in California. After several required observations to recapture the object and determine its orbit, minor planets are given a number and sometimes discoverers name them. Minor Planet 1992 LE has been designated 22338 Janemojo, for SCAS members Jane and Morris (Mojo) Jones.

More information, orbital plots and a motion trail, plus pictures and the Minor Planet circular are at:

<http://www.whiteoaks.com/Janemojo.html>

Public Astronomy

by Len Nelson, Community Activities Director

lennelsn@attbi.com (707) 763-8007

School Star Parties, Young Astronomers and other astronomy programs are conducted by SCAS as a public service. Please join us.

Young Astronomers - The YA meets the first Friday of each month at Apple Blossom school located SW of Sebastopol. The YA gets its own newsletter and if you would like to receive it please send me a note at the email address listed above.

Yosemite Trip - There are still a few spots available for people sign up to go to Yosemite on July 18-20. If you are interested in going to Yosemite National Park to provide public astronomy at Glacier Point for 2 nights, please contact me soon. In return for this public service, the National Park Service allows us to camp free for 2 nights in the group campsite at Bridalveil Creek Campground which is about 9 miles from Glacier Point. On the nights that we will be there, the Moon rises at about 10:00 on the eastern horizon right in front of our position on Glacier Point. It is a beautiful spectacle in itself. If you have never been to Glacier Point to do public astronomy, I want to tell you that it is fun, thrilling and overall a rewarding experience that you should not miss. If you have any questions, contact me to discuss them.

SSU Dept. of Physics & Astronomy Observatory - Public Viewing

(707) 664-2267

August 29 9:00 - 11:00 Star Clusters, Swan Nebula

The observatory is inside the football field at the SE corner of the campus, East Cotati Avenue and Petaluma Hill Road, 2 miles east of U.S. 101 at Cotati.

SSU Lecture Series

"What Physicists Do"

<http://www.phys-astro.sonoma.edu/wpd/>
(707) 664-2119

No Summer shows scheduled at press time.

Mt. Tamalpais State Park<http://www.mttam.net/astronomy.html>

(415) 455-5370

June 28, 2003 8:30pm, Mountain Theater*Galaxies Near and Far*

Bryan J. Mendez, UC Berkeley

How do we determine the distances to galaxies and what does this tell us about their formation?

Chabot Space and Science Center<http://www.chabotspace.org>

(510) 336-7373

June 19, 2003, 7:30 pm*The History and Future of Mars Exploration*

Erik S. Bailey, Jet Propulsion Laboratory

Mars, the red planet, has fascinated us for a long time. We've imagined invaders from Mars, little green men with antennas inhabiting the planet. We know better now, but we expect to send explorers to Mars in the next two decades. With Mars approaching its best view from Earth in over 10,000 years, Erik Bailey, an aerospace systems engineer at the Jet Propulsion Laboratory in Pasadena, will take us on a journey from the very first American probes to Mars to the bold plans for future vehicles of exploration.

June 26, 2003 7:30 pm*Martians Invade Hollywood*

Dr. Seth Shostak, SETI

Dr. Shostak will take a look at how our ideas about Martians and alien life have been influenced by Hollywood's quest for drama and the absurd, plus a look at what's really real in the cinematic reels.

SRJC Planetarium<http://www.santarosa.edu/planetarium/>

(707) 527-4465 or 527-4371

Santa Rosa Campus, Lark Hall, Room 2001

No Summer Shows.

Silicon Valley Astronomy Lecture<http://www.foothill.edu/ast/>

(650) 949-7888

No Summer shows scheduled at press time.

**Sugarloaf Ridge State Park
Robert H. Ferguson Observatory**<http://rfo.org>

(707) 833-6979

June 21 and June 28 Public Observing

Solar viewing: 12 Noon - 4 p.m.

Night viewing: 9 p.m. - Midnight

While there is no set admission fee for the solar viewing, donations to help defray the costs of operating the observatory are appreciated. There is, however, a \$2 fee for admission to the night viewing sessions.

SCAS members are welcome to set up telescopes to assist with the public viewing. However, automobile access is closed at dusk, so arrivals after dusk will need to be able to carry their equipment in from the parking area by the horse stables.

Morrison Planetarium**Dean Lecture Series**<http://www.calacademy.org/planetarium/>

(415) 750-7141

Tickets are \$3.00 per person per lecture. Purchase in advance of lecture date recommended. Make checks payable to Morrison Planetarium. Send self addressed stamped envelope and check to:

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

June 10, 2003 7:30 p.m.*Black Holes, Jets, and Einstein's Dream*

Dr. Meg Urry, Yale University

Galaxies harbor hidden black holes at their centers, weighing millions or billions as much as our Sun. Some create bright sources of light, vastly outshining the galaxy; in rare cases, the black holes also cause jets to stream outward at nearly the speed of light. Einstein's Special Theory of Relativity — a theory he dreamed up through thought experiments — helps explain the very modern phenomenon of jets and over-luminous galaxy centers.



Who said astronomy is quiet? Lynn Anderson, Bruce Lotz and Merlin Combs at the panel cutter.



Lynn Anderson and Len Nelson bandsawing discs.



Dickson Yeager and Larry McCune assemble bases.



Mark Hillestad contemplates his White Period.



Who is that masked man? Vicki Tandেকে, Drew Kovaly and Alberta Stone finish sanding the bases.



Larry McCune looks like he's raising mushrooms in Mark's garage. Thanks again, Mark.



Larry McCune and Len Nelson preparing tubes for their waiting mirror cells.



Larry McCune installing the mirror.



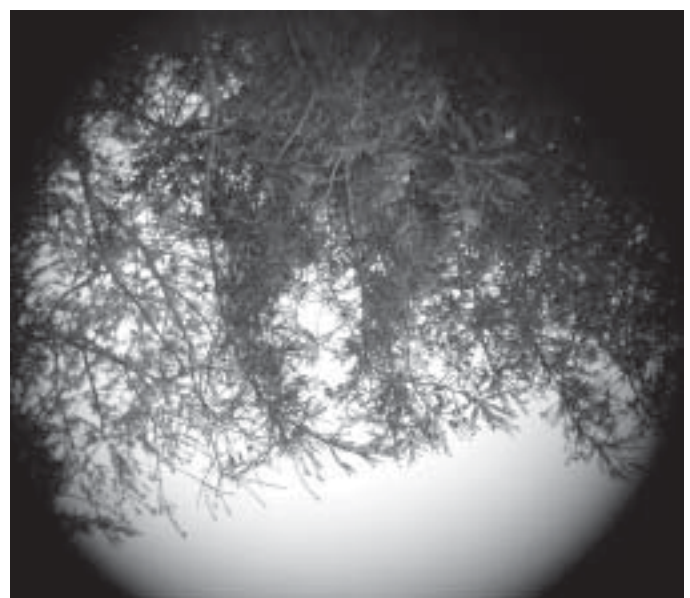
Len Nelson directing rays (and Larry).



Mark Hillstad and Walt Bodley finish the assembly.



Say AHHH! Mirrormeister Steve Follett checks collimation once more.



First light, or just checking acorns ?

A Gallery of Winners!

