

Sonoma Skies

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

April 2003

Volume XXVII No. 4

Successful Finale For 2003 Striking Sparks

By Vicki Tandecke and Victoria Vertrees

On February 22, Mark Hillestad, Larry McCune and Len Nelson met at the Hillestad garage to paint the new telescope bases. They met again on March 15th along with Walt Bodley and Steve Follett to do the final assembly of the ten telescopes.

Judging the student applications for the Striking Sparks Telescope Contest was conducted on March 1st by SCAS Board members Steve Alvernaz, Lucy McMahon, Larry McCune, Harry Linder and Len Nelson along with coordinators Vicki Tandecke, Victoria Vertrees and next year's new coordinator Coby Lafayette.

Winners of this year's telescopes are:

Haley Washington	Olivet Elementary, Santa Rosa
Krisandra Adams	Monte Rio School, Forestville
Jacob Gaynor	Parkside School, Sebastopol
John Greene	Meadow School, Petaluma
Blake Pepper-Tunik	Goldridge School, Rohnert Park
Laura Campbell	Grant Elementary, Petaluma
Daniel Torres	Meadow School, Petaluma
Eric Montenegro	Cloverdale SDA School
Nicole Teagarden	Grant Elementary, Petaluma
Weston Stauffer	Wilson School, Petaluma

CONGRATULATIONS ON YOUR WINNING LETTERS!

STRIKING SPARKS DAY

Upon arrival, members and visitors were welcomed to some great solar viewing in the parking lot thanks to Merlin Combs. Once inside, participants found a festive room

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SCAS Monthly General Meeting 7:30 pm Wednesday April 9, 2003

Proctor Terrace Elementary School
4th Street and Bryden Lane, Santa Rosa

FOR THE DAYTIME OBSERVER.... THE ONE & ONLY SUN

Art & Chelle Owens are long-time members of the San Francisco Amateur Astronomers and have shared the views of our nearest star through their H-Alpha Daystar filter and 12" Meade LX200 with thousands of people.

What to look for on the photosphere and daytime phenomena related to our sun will be the April 9 meeting's topics.

Friends Russ Thomas and Linda & Norman Mahan will join Art and Chelle to demonstrate the Van deGraff generator and Tesla coil to explain solar properties.

A Preview of May's Meeting:

The SCAS is honored to announce that our May 14th meeting's guest speaker will be Dr. Marc D. Rayman of NASA's Jet Propulsion Laboratory. Mark your calendar now and plan to come! His subject will be:

Deep Space 1: Rocketing to the Future

As the first mission of NASA's New Millennium program, Deep Space 1 was designed to test advanced, high-risk technologies vital to future space and Earth science missions. During its solar system journey, Deep Space 1 tested such exotic systems as ion propulsion and artificial intelligence so that subsequent missions could use (or

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 if you are interested.

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 24th 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 and Leah Barker

benbarker@earthlink.net

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SCAS Elected Board

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jaas1@attbi.com

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Len Nelson 763-8007 lennelsn@attbi.com

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SCAS Appointed Positions

Amateur Telescope Making

Steve Follett 542-1561 sfollett@sonic.net

Young Astronomers Advisor - Vacant

Striking Sparks Program & Sparks Day Coordinators

Vicki Tandecke 528-8925 vtandecke@webtv.net

Victoria Vertrees 544-4409

Librarian

Joan Thornton 762-0594 phonyjoanie@juno.com

SCAS "Public" Star party Coordinator

Loren Cooper 525-8737 lorenco@sonic.net

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.

The Semi-Sirius Astronomer

by Herb Larsen



2003 SCAS Calendar

- Sat. Apr. 5** SCAS Star Party at the Palmieri site
- Wed. Apr. 9** General Meeting at Proctor Terrace School 7:30 pm
- Sat. Apr. 12** Public Star Party, 7 p.m. at Youth Community Park, Fulton Rd., Santa Rosa
- Sat. Apr. 17** SCAS Board meeting
- Sat. May 3** SCAS Star Party at the Palmieri site
- Sat. May 10** Public Star Party, 7 p.m. at Youth Community Park, Fulton Rd., Santa Rosa
- Wed. May 14** General Meeting at Proctor Terrace School 7:30 pm

SCAS Egroup URL

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

Public Astronomy

by Len Nelson,
Community Activities Director

lennelsn@attbi.com (707)763-8007

School Star Parties and other astronomy programs are a public service of SCAS.

With the coming of Day Light Savings Time on April 6th and with the school year winding down, we will have very few additional star parties at local schools. So, if you have yet to come to one, this may be your last chance until this Fall. The next one will be April 10th (or 11th if necessary) at 7:30 PM at Wilson Elementary in Petaluma.

Our school star parties could not be provided but for the goodness of the following people who volunteered their time and telescopes this school term. Their efforts have made the school star parties held since last October a great success. I'd like to thank: Ben Barker, Bob Johnston, Dave Smith, Duane & Mark Bellingier, Ed Megill, Eric Chazankin, Emilio Ricci, Frank Siroky, Laurie O'Hara, Mario & Justin Zalaya, Merlin Combs, Robert Leyland, Steve Alvarez & Tom Burrows.

SCAS Geysers Star Party

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

Altitude: ~2700 feet

Longitude: 122deg 49min

Latitude: 38deg 46min

Come watch the time change! The next SCAS Star Party is Saturday evening, April 5.

Sunset: 6:38 p.m. PST, Sunrise: 6:48 a.m. PDT (4/6)
Moonset: 10:36 p.m. PST, Moonrise: 9:26 a.m. PDT (4/6)
End Astronomical Twilight: 8:48 p.m. PST
Begin Astronomical Twilight: 5:17 a.m. PDT (4/6)

The May Star Party is Saturday evening, May 3

Sunset: 8:04 p.m. PDT, Sunrise: 6:11 a.m. PDT (5/4)
Moonset: 10:30 p.m., Moonrise: 8:04 a.m. (5/4)
End Astronomical Twilight: 9:45 p.m.
Begin Astronomical Twilight: 4:29 a.m. (5/4)

SRJC PLANETARIUM SHOWS

With Ed Megill, Planetarium Director
<http://www.santarosa.edu/planetarium/>

Santa Rosa Campus, Lark Hall, Room 2001

Program Times

7:00 pm & 8:30 pm - Fridays & Saturdays

1:30 pm & 3:00 pm Sundays

General Admission \$4 - Students & Seniors \$2

Tickets available at door 30 minutes before show

No Children under 5

Parking Permits Required at \$2

For more information, call 527-4465 or 527-4371

**SCAS members provide telescope viewing
 whenever weather and light conditions permit.**

Our Star the Sun

February 28 - April 6

We think of the Sun every day. How often, though, do we think of the Sun as the nearest star? In this show we will learn about our star the Sun: how and when the Sun and planets were formed, what we find inside our star, why it shines, and what will become of the Sun. The show also includes sunspots, solar prominence, solar flares, and the solar wind, as well as Sun related phenomena such as solar eclipses, rainbows, and the aurora.

SCAS Public Star Party

Loren Cooper 525-8737 lorenco@sonic.net

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

The next SCAS Public Star Parties are:

Saturday evening, April 12, 2003

Sunset: 7:44 p.m. PDT

Moonset: 5:13 a.m. (4/13/03)

End Astronomical Twilight: 9:18 p.m.

Saturday evening, May 10, 2003

Sunset: 8:11 p.m. PDT

Moonset: 3:11 a.m. (5/11/03)

End Astronomical Twilight: 9:55 p.m.

Robert H. Ferguson Observatory

Public Viewing

Phone: (707) 833-6979

<http://www.rfo.org>

The 40-inch Moore Dobsonian in the west wing has been removed for reconstruction purposes. Bill Russell has graciously agreed to allow his 24-inch Dobsonian to be installed in its place.

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.

The next public observing is: **April 26**

Solar 12 Noon - 4:00 p.m.

Night 8:00 p.m. - midnight

SSU Dept. of Physics & Astronomy Observatory - Public Viewing

<http://www.phys-astro.sonoma.edu/observatory/>

April 25 9:00 - 11:00 p.m. Jupiter, Seyfert Galaxies

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. Follow signs from the freeway to the campus. Call before coming if it appears likely that clouds may force cancellation.

Observatory Phone No. (707) 664-2267

SSU Lecture Series

“What Physicists Do”

Programs begin at 4:00, Room 108, Darwin Hall

<http://www.phys-astro.sonoma.edu/wpd/>

Apr 14 - Ballistic Missile Defense: Technical Frontier Or Technical Folly?

Apr 21 - Quantum Logic: What's It Good For?

Apr 28 - Quantum Cryptography With Fiber-Optic Interferometers

May 5 - A Biomolecular Sensor Based On Nanoparticles

2003 Striking Sparks Finale

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filled with decorated tables, balloons, beautiful bags of goodies for the winners, and astronaut piñatas thanks to Fran Sanders and her team of volunteers. “An out of this world” photo area donated by the Big Bang Band was brought to life by Coby Lafayette.

The potluck dinner started at 6:15 p.m. During dinner the Young Astronomers’ Vice-President, Melissa Downey and her mother, Mary, took turns selling \$250 worth of raffle tickets to earn money for Y.A. monthly club activities. Good job, are you available next year? Later in the program, Brendan Wells, Y.A. President, along with Striking Sparks buddy, Justin Zelaya, had fun selecting the winning raffle tickets and handing out the prizes. A perfect end to the raffle was when Justin’s number was pulled and he won the Astrophoto of comet Hale-Bopp created by Larry McCune. Donations to the raffle were as follows:

Mrs. Grossman’s albums and stickers – June Ferguson
 Observatory T-Shirts – Bob Ferguson Observatory
 Planetarium Tickets – Ed Megill, SRJC Planetarium Dir.
 Celestial Calendars – Brendan, Cathy and Jim Wells
 Sky at Night/Interactive Kit – Darwin Krebs
 Astrophotos – Tony and Daphne Hallas
 Apollo Lunar Module Pilot, Apollo Commander, & Space
 Voyagers Astrosquad toys – Terry Dye
 Astronomy/Monopoly Game, Observer’s Handbooks &
 SCAS Patches – Sonoma County Astronomical Society
 Astrophotograph of Comet Hale-Bopp – Larry McCune

As Master of Ceremonies, Steve Alvernaz, SCAS President, gave opening remarks and a nice talk about the life of Bob Ferguson and the formation of the Striking Sparks program followed by an introduction to the Frank Hejzmanek Trust Fund. Brendan Wells, President of the Young Astronomers, presented the history of the Y.A.’s and introduced the other Board members who were present: Melissa Downey and Darren Davis.

SPARKS PROGRAM AWARDS were presented to:

Teachers: Jeff Hudson, Barbara Gegan, Jenny Sortino, Katie Hansen, Mary DeVencenzi, Julia Megna, Stephanie Derby, Beth Garibaldi, Leslie Ihrig and

Sponsors: Coby Lafayette, Jane Houston-Jones (AANC), B.J. & Dick Yeager, Frank Hejzmanek (Trust), Mr. & Mrs. Bev Barge, Katy Colwell, Barry Lindstrom, The Young Astronomers, Robert Leyland, and Ben Pietsch were acknowledged for their contributions to furthering scientific education for Sonoma County students.

Special acknowledgment was made of **Cathy Wells** for more than 10 years of continuous service to the Young Astronomers’ Club and to the Striking Sparks program. Thank you for your help and support. We hope you will continue to join in the fun next year.

Cathy’s son, **Brendan Wells**, was also honored for over 11 years of service to the Young Astronomers and to the Striking Sparks program. Winning a telescope at age seven, he worked for many years as the Y.A. Newsletter editor and later as the President (the past five years). Brendan will be graduating from Analy High School this semester and will be heading to Stanford with a major in mathematics or science. Congratulations Brendan.

Steve Follett: SCAS extended appreciation and special recognition to Steve for his many years as **Master Mirror Maker** and for his outstanding service to the Striking Sparks program. We hope you will enjoy working on the mirrors for many years to come.

It was a beautiful sight when the curtain finally opened **VERY SLOWLY**, revealing the ten new telescopes. Steve Alvernaz and Brendan Wells awarded the Striking Sparks telescopes to the new winners.

Special thanks goes to Talbot’s Clothing Stores for funding the flashlights, bags and decorations for the bags and to Lizabeth Arntz for all her work on the beautiful bags.

Once again, **Sam Sweiss** of **SCOPE CITY**, 350 Bay Street, San Francisco, stepped forward and donated 10 Seasonal Star Charts for our Striking Sparks winners. Thank you Sam for your generous donation!

This is our last year as co-coordinators of the Striking Sparks program. We had a wonderful four years working with and getting to know everyone better. We want to thank those who participated in this project for their time, effort and particularly their great sense of humor. **WE HAD GREAT FUN!**

We are very pleased to announce that Coby Lafayette, a long-standing member of SCAS, has agreed to take over the Striking Sparks coordinator’s position. It will be wonderful to see the new ideas Coby will bring to the project. Coby has experience working with non-profit organizations and is highly motivated. Please welcome Coby to this new position. Coby, we know you will be very successful in this new endeavor.

May Preview

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avoid!) them without incurring the high cost and risk that normally burden the first user of such capabilities. By conducting such test flights, NASA can develop a space science program featuring frequent, affordable, scientifically compelling and exciting missions. In essence, Deep Space 1 took the risks so that future missions would not have to.

Deep Space 1 was launched in October 1998. By the end of its 11 month mission, it had met or exceeded all of its objectives, even though it relied on high-risk and unproven systems. The mission was so successful that NASA approved a bold extension, and Deep Space 1 turned from a flying technology laboratory into a scientific explorer, setting off to reach a comet. Along the way, it suffered the failure of a system so critical that the mission should have been terminated. Nevertheless, from across the solar system, the operations team conducted one of the most remarkable robotic space rescues ever attempted.

In September 2001, at more than three times its planned lifetime, the aged and wounded bird executed a spectacular and flawless encounter with comet Borrelly. Although it had not been built for such a challenging assignment, Deep Space 1 returned a rich harvest of scientific data, including the best images ever acquired of the nucleus of a comet.

Marc Rayman will provide an overview of some of the amazing technologies Deep Space 1 tested and give an account of its adventures and discoveries in space, as well as share some of the excitement of flying a spacecraft through the solar system.

If you would like to prep yourself for this guest speaker, please visit the mission web site:

<http://nmp.jpl.nasa.gov/ds1>

About Dr. Marc Rayman:

He earned a bachelor's degree in physics from Princeton University and a master's degree in physics from the University of Colorado in Boulder. He then performed research at the Joint Institute for Laboratory Astrophysics (JILA) on experimental tests of special relativity and atomic and laser physics, and received his Ph.D. there. He continued at JILA as a postdoctoral researcher.

Dr. Rayman joined the Jet Propulsion Laboratory in 1986. His work there has included design of space missions to detect planets around other stars, to bring samples of Mars back to Earth, and to study the universe with an infrared telescope, as well as the development of systems to use lasers instead of radios to communicate with interplanetary spacecraft.

SCAS Membership News

by **Harry Linder**,
Membership Director
 harry@sonic.net

The SCAS is pleased to welcome the following new members:

Paul Judge, the Cecelia Yarnell family and the Allan Stern family.

This swells our ranks to 158 dues paying members; this does not include the Striking Sparks winners for 2002 and 2003.

ALL MEMBERS PLEASE WATCH OUT FOR YOUR NEXT (MAY) ISSUE OF SONOMA SKIES, which will include **RENEWAL FORM** to be returned with your **DUES**, by the first of June. Thank you.

The SCAS Board approved a request for **limited use of the SCAS membership address list** by the Valley of the Moon Observatory Association (VMOA) for a one- or two-time mailing to our members. SCAS and VMOA share many interests, and many of our members are also members and/or sponsors of the VMOA, which operates the Robert Ferguson Observatory. Only name and mailing addresses will be provided (not phone numbers or e-mail addresses), with the understanding that the list will not be retained after the mailing. If you are not comfortable with having your name and address disseminated to VMOA, you can have your name removed from the list by "opting out." **You can opt out** by informing Harry Linder by April 13th via e-mail (harry@sonic.net) or by telephone (707-542-9167) that you prefer not to be included (and of course who you are).

In 1994, he helped initiate a new NASA program to characterize highly advanced and risky technologies for future space science missions by flying them on dedicated test flights. The first mission of this New Millennium program was Deep Space 1, the subject of his presentation at our May meeting.

Dr. Rayman is now working on a mission that builds upon some of the technologies tested on DS1 to study two large, unexplored worlds. Planned for launch in 2006, Dawn will visit the two most massive asteroids, Ceres and Vesta, in an ambitious nine-year mission that should reveal much about the origin of the solar system.