

Sonoma Skies

Newsletter of the Sonoma County Astronomical Society
A nonprofit scientific and educational organization



www.sonomaskies.org

February 2005

Volume XXVIII No. 1

TWO NEW BOARD MEMBERS ELECTED

by Keith Payea

At our December Meeting, the SCAS approved the entire slate of board members, including two new members for 2005. John Whitehouse was elected as Vice President, replacing June Ferguson, who decided not to seek re-election. John is already working to fill our schedule with interesting speakers.



Clockwise from top left: Keith Payea, Loren Cooper, Cecelia Yarnell, Len Nelson, John Whitehouse, Walt Bodley, Larry McCune

Walt Bodley was elected as Membership Director, taking over for Harry Linder, who also did not seek re-election. Walt has taken over the membership data base from Harry, and will be trying to keep track of everybody.

John and Walt join the rest of us on your board of directors: Keith Payea as President, Loren

Cooper as Secretary, Larry McCune as Treasurer, Cecelia Yarnell as Publications Director, and Len Nelson as Community Activities Director. I would like to thank all of the other board members for serving, and for giving that little extra that makes our club a success.

I would also like to thank June Ferguson and Harry Linder for their past service. We couldn't have done it without them.

STRIKING SPARKS - AWARDING OUR 200TH TELESCOPE!

By Len Nelson - 2005 Striking Sparks Coordinator

Over the past 19 years, the SCAS has provided and awarded 192 telescopes to Sonoma County students. This is our 20th year and our 200th telescope will be awarded. We are only making 8 telescopes this year so that none (or all) of the eight awarded will be labeled as the 200th telescope.

We are making good progress in preparation for the March 19th celebration. Here is a brief recap:

Sponsors: All 8 telescopes to awarded now have Sponsors. They are as follows: Bob & Kay Johnston; Bruce Gaynor; Dickson & BJ Yeager; Robert Leyland; Rose Gardner; The Big Bang Band; The Hajtmanek Fund; The Young Astronomers.

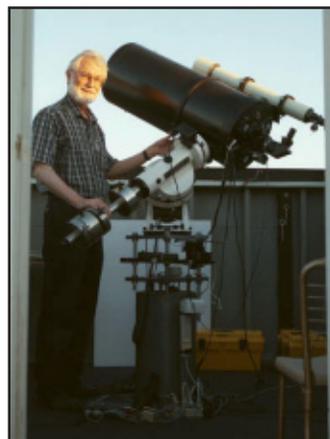
continued Back Cover

Astro-Imaging

with Bert Katzung

SCAS February 9 Meeting, Proctor Terrace School

We love astronomy for as many reasons as there are lovers (of astronomy!). Some of us are interested in cosmology, astrophysics, stellar evolution and the like. Some of us love planets. Some of us are "gear-heads" who enjoy using, buying, or even making our own equipment to enjoy the heavens above. But I think all of us also simply enjoy the beauty of the heavens for its own sake.



In either case most of us have entertained the idea of making a record, capturing the splendor of the stars. Astronomical images enable astronomers to keep archival records, make precise measurements of celestial happenings, but also allow us to share and appreciate the immense beauty of the cosmos that

our eyes are too feeble to see without time exposures and sensitive media. But how to get started?

Our speaker for the next meeting is Bert Katzung. Mr. Katzung is a local resident who became so enraptured by the beauty of the skies he built his own observatory near Windsor. He will share with us his journey through learning techniques, equipment needs, and shivering in the cold night air to get that wonderful image he produces.

Mr. Katzung is an accomplished terrestrial photographer, as well. His wildlife photographs and nature scenes are world class. Visit his website at astronomy-images.com to see what he does, then come meet him in person Wednesday, February 9 at 7:30PM.

Young Astronomers: See pages 6 & 7

SCAS MEMBERSHIP

MEETINGS AND STAR PARTIES

Membership Meetings take place at 7:30 PM on the second Wednesday of each month, in the Multipurpose Room of Proctor Terrace Elementary School on Bryden Lane near Fourth Street in Santa Rosa, unless otherwise announced in this publication. The public is invited.

Star Parties are held monthly on the Saturday nearest the 1st quarter moon at Youth Community Park in Santa Rosa.

Access to Geysers Observing Site: The 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.

DUES

Membership dues are \$25, renewable June 1 of each year. New members joining between December 1 and May 31 may pay partial-year dues of \$12.50.

DISCOUNT SUBSCRIPTIONS

SCAS offers discount subscriptions to *Sky & Telescope Magazine*. New subscribers, send a check for \$32.95 payable to "SCAS", along with your complete mailing address, directly to: Larry McCune, 544 Thyme Place, San Rafael, CA 94903. For renewals, send him your check with the completed renewal card and return envelope.

Discount subscriptions to *Astronomy Magazine* occur yearly in October. Check *Sonoma Skies* for details.

RENTAL TELESCOPES

NEW! SCAS members are eligible to borrow telescopes for a **\$10 per month** donation—or **FREE** each month you participate in a SCAS-related Public Star Party. Five telescopes are available: 8" and 5" Celestron SCTs, each complete with clock drive and inverter; 8" and 12.5" Newtonians on Dobsonian mounts; an 80mm refractor on motorized equatorial mount. Contact Joan Thornton at 707-762-0594.

NEWSLETTER

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

Articles, news items and member announcements for *Sonoma Skies* are welcome. Submissions must be typed or, if on computer media, in a commonly used word processing and/or graphics format, and may include graphics (pictures, drawings, etc.) They are published on a first come, first served basis, space permitting, and may be edited.

The deadline for submissions is the last Wednesday of each month.

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www.sonomaskies.org

SCAS ELECTED BOARD

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Joan Thornton 762-0594 phonyjoanie@earthlink.net

PUBLIC STAR PARTY COORDINATOR

Bruce Lotz 576-7833 ablotz@sonic.net

LIBRARY

NEW! Jack Cranston has donated a set of videos from the PBS series "The Astronomers." Especially good for school age children with an interest in Astronomy.

SCAS has a library of astronomy books that may be checked out by members at SCAS meetings. Books may be borrowed for a period of one month and returned at the next meeting. Videotaped lectures on astronomy are available for rent at \$3 per month. Requirements: SCAS membership and your name and phone number. For more information, contact Joan Thornton at 762-0594, phonyjoanie@earthlink.net

SCAS EGROUP URL

Any SCAS member is welcome to join. Hosted by Robert Leyland at r.leyland@verizon.net the majority of traffic is about going observing, observing reports and astronomy-related news. We get news items from AANC and Sky & Telescope and chat about astronomy.

To join, either visit <http://groups.yahoo.com/group/scas> and click the "Join" button, or send an email to scas-subscribe@yahoogroups.com

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Oh my! Now the Yosemite bears are using telescopes to scout for food!

President's Column

SCAS Update and SOHO

by Keith Payea

I don't know about you, but I really enjoyed all of the pictures and commentary that Len gave us in his recap of 2004. It was a hard act to follow!

After a quick preview of the major events coming in 2005, I asked you for your feedback and suggestions. I really appreciated all of the great ideas that came up during our "brainstorming" at the end of the meeting. Here's what was discussed:



When asked how people found out about SCAS, members said they found us in local newspapers, through web searches or just by accident—at some other event or by word of mouth. Many suggestions were offered:

1. We should try to get flyers posted on bulletin boards at local markets, SSU, SRJC, etc. Play up the "Star Party" theme, as it attracts more attention than "Astronomy club meeting."
2. Consider having a drawing at an event to gather attention.
3. Tie events to other local events, i.e., Earth Day, the County Fair, the Harvest Fair, the Farmer's Market.
4. Have the membership application on-line at the web site.

We discussed all of this at our January board meeting, and we'll be incorporating many of these ideas in the coming year. The secret is in finding a level of activity that we can support with the volunteers we have. The more members who volunteer for events, the more things we can do.

Now for something completely different. Even though it was designed to monitor solar activity, the SOHO spacecraft has also observed many comets—over 900 now. The images it sends back, which are available on the internet in "near real time", have become fertile ground for amateur comet hunters. To celebrate this achievement, the operators of SOHO are having a contest to see who can predict when the 1000th comet will be discovered via SOHO imagery. The officials expect that it will be sometime between June and October of 2005. For more details, see: http://www.space.com/scienceastronomy/soho_contest_050125.html

Also, if you have a personal web page with some astronomy related information on it, send me the link and I'll include on the SCAS website at www.sonomaskies.org. As always, send me your suggestions or comments at kpayea@bryantlabs.net

Keep looking up!

SOCIAL AMENITIES

SCAS would like to thank Colleen Ferguson and Derek Brand for providing tasty refreshments at January's general meeting.

We'd also like to thank those who signed up to provide for future meetings. Some months remain open, so if you'd like to provide treats and set up beverages for April, August, September, November or December, please call or email Cecelia Yarnell

MEMBERSHIP NEWS

Let me introduce myself: my name is Walt Bodley, and I am happy to be your new Membership Director. I managed to finagle my way into this plum position after a fierce competition ("You do it!"... "No, YOU do it!!!") and will do my best to serve the membership's needs. Please send any changes in your address or email to me at wbodley@sonic.net

We are pleased to welcome John Beiber and Phil Kenny who joined SCAS at the January meeting. John has recently come into possession of a new telescope and is anxious to learn how to use it. Phil has expressed an interest in astrophotography. Our apologies to new member Jessica Kenny whom we referred to last month as Jessica Kennedy; our records have been corrected.

SCOPE CITY New Member Bonus!

- Scope City at 350 Bay Street, San Francisco, is offering a **\$25 merchandise discount to new members**. Manager Sam Sweiss has supported SCAS and the Striking Sparks project by donating merchandise for the awards. He offers a huge selection of telescopes, accessories and more.
- Obtain a receipt from Walt Bodley, Membership Director, showing you have paid the \$25 SCAS membership dues.
- To arrange for your merchandise discount, contact Sam at 415/421-8800 or at sanfrancisco@scopecity.com

Events

SILICON VALLEY ASTRONOMY LECTURE SERIES

Wednesday, March 2, 7:00 PM

“Bad Astronomy (In Everyday Life and the Movies)”

Will a giant asteroid soon destroy civilization? Can an egg stand on its end only during the spring equinox? Were the Apollo Moon Landings the biggest hoax of all time? Do toilets flush one way just north of the equator and the other way just south of it? Astronomer, popular author, and web-master Phil Plait will take the audience on a good-humored guided tour through some of the misconceptions and mistakes people have about science.

Please come early as seating is first come, first served. Held in the Smithwick Theater, Foothill College, Los Altos Hills. Free and open to the public. Parking on campus costs \$2. Call the series hot-line at 650/949-7888 for more information.

MORRISON PLANETARIUM DEAN LECTURE SERIES

Feb. 21—How Lonely is our Planet? New Results in the Quest for Alien Life—David Grinspoon Ph.D., Southwest Research Institute

In a talk illustrated with provocative and striking space imagery, the author of the recent award winning book *Lonely Planets: The Natural Philosophy of Alien Life*, will discuss the intriguing new results from NASA's missions to Titan and Mars, and how these inform our changing views about life elsewhere in the universe.

New Location: During reconstruction, lectures are held at the Jewish Community Center, 3200 California Street (at Presidio). Parking in the UCSF Laurel Heights campus parking lot is \$1.25/night. Parking in the JCC garage is \$1.25 per half-hour. All programs begin at 7:30 PM in Kanbar Hall at the JCC. Contact: 415/750-7141 <http://www.calacademy.org/planetarium/>

2005 DESERT SUNSET STAR PARTY

AANC Notice: Pat and Arleen Heimann will again be hosting the Desert Sunset Star Party May 4-8, 2005, at the Caballo Loco RV Ranch southwest of Tucson.

Caballo Loco is located east of Kitt Peak and nestled against the Sierrita Mountains. Whipple Observatory on Mt. Hopkins is located to the east. Lots to do during the day and great skies at night. There will be speakers and door prizes on Friday and Saturday evenings. Check our website for details: <http://www.chartmarker.com/sunset.htm>

SHINGLETOWN STAR PARTY

This year's Shingletown Star Party is currently (not absolutely official yet... but 99%) scheduled for July 6-11.

SCAS SCHOOL STAR PARTIES

- Feb. 7** Strawberry Elementary in Santa Rosa
- Feb. 10** Piner Elementary in Santa Rosa
- Feb. 15** Miwok Elementary in Petaluma (16th if rain)
- Mar. 7** Meadows Elementary in Petaluma (8th if rain)
- Mar. 14** Evergreen Elementary in Rohnert Park
- Mar. 15** Bernard Eldridge Elementary in Petaluma (16th if rain)
- Apr. 6** Grant Elementary in Petaluma
- Apr. 11** Cub Scouts in Petaluma
- Apr. 16** Astronomy Day in Petaluma, in Santa Rosa at the Youth Community Park & at the RFO

Star parties are given free to any school or organization that requests them. To make arrangements, contact SCAS Community Activities Director, Len Nelson, at 707/763-8007, lennelsn@comcast.net. Get on his volunteer list if you are interested in being notified of upcoming school star parties.

ROBERT H. FERGUSON OBSERVATORY

Public Viewing: Saturday, February 5

Solar Viewing: 11:00 AM - 3:00 PM

Night Viewing: Begins 7:00 PM

Three scopes are operating: The 14-inch SCT with CCD camera in the east wing, the 8-inch refractor under the dome and the 24-inch Dobsonian in the west wing.

There is no admission fee for the solar viewing, but donations are appreciated. The Park charges \$6 per vehicle for entry. A \$2 donation is requested from adults 18 and over for admission to the observatory during the night viewing sessions.

SCAS members may set up telescopes in the observatory parking lot to assist with public viewing. Automobile access closes at dusk, late arrivals must carry equipment in from the horse stable parking area.

Classes

- Feb. 8 Night Sky Winter/Spring Series, 7:00 PM
- Feb. 4 Observing Lab, 7:00 PM
- Mar. 1 Night Sky Winter/Spring Series, 7:00 PM
- Mar. 3 Intro to Astronomy & Observing, 7:00 PM
- Mar. 4 Observing Lab, 7:00 PM
- Mar. 10 Intro to Astronomy & Observing, 7:00 PM

Classes are held at the Observatory. Reservations required for classes. Contact: (707) 833-6979 or email nightsky@rfo.org

Events

THE GEYSERS STAR PARTIES

Excellent dark sky observing at ~2700' for members and guests.

Location: Palmieri Observatory, Mercuryville (near The Geysers). Longitude: 122deg 49min., Latitude: 38deg 46min.

SATURDAY, FEBRUARY 5

Sunset: 5:38 PM PST

End Astronomical Twilight: 7:08 PM PST

Moonset: 1:45 PM PST 2/6

Note: **Alternate date February 12** if weather prohibits. Dress warm. If it's your first time to the Geyser site, go with someone who has gone before, or contact Mario Zelaya at (707) 539-6423, zelayadesigns@sbcglobal.net

LAWRENCE HALL OF SCIENCE

"Alien Earths" Exhibit and Lecture

The exhibit invites visitors to join the search for habitable worlds. In conjunction with the opening of the exhibit Seth Shostak, Senior Astronomer at SETI Institute, and Dana Backman, Associate Director of SOFIA for Education and Public Outreach at the NASA Ames Research Center will speak in the Lawrence Hall of Science Auditorium at UC Berkeley Sunday, February 6 at 12:30 PM. For more information visit www.lawrencehallofscience.org

SRJC PLANETARIUM

"Ice Ages"

Through February 20

The temperate climate of Sonoma County that we value so much is not the norm. For most of the past 150 to 200 million years more of North America has been covered in Ice than not. In this show we will investigate Ice Ages. What are the chances that ice will once again cover Sonoma County? Learn how quickly an ice age can happen and what conditions may trigger glacial and interglacial periods. We will also discover how Earth's natural orbital changes can affect climate over long periods of time.



Shows are held at Santa Rosa Campus, Lark Hall, Room 2001, on Fridays and Saturdays at 7:00 PM and 8:30 PM, Sundays at 1:30 PM and 3:00 PM during the Fall and Spring semesters. Admission is \$4 General; \$2 Students and Seniors. Tickets are sold at the door only, beginning 30 minutes before show time.

A parking permit is required and is included in the Planetarium admission price. Pick it up at the planetarium when you pay admission. Please arrive early enough to place your permit on your vehicle's dashboard before the show. Contact: (707) 527-4465 or 527-437 <http://www.santarosa.edu/planetarium/>

SCAS PUBLIC STAR PARTY

These are public events—all are invited. Members with scopes are encouraged to attend.* Great for planetary astronomy with fellow observers at an easily accessible site.

SATURDAY, FEBRUARY 12

Sunset: 5:46 PM PST

End Astronomical Twilight: 7:15 PM PST

Moonset: 10:27 PM PST

Youth Community Park in Santa Rosa, on the west side of Fulton Road, between Guerneville Road and Piner Road, just opposite Piner High School. Contact: Bruce Lotz, Coordinator (707) 576-7833, ablotz@sonic.net

***Note!** Rental telescopes listed on Page 2 are *free* each month you participate in a SCAS-related Public Star Party. Join us in introducing the night sky to eager participants.

SONOMA STATE UNIVERSITY SERIES "WHAT PHYSICISTS DO"

Tuesdays at 4:00 PM

Stevenson Hall Room 2006 (Coffee at 3:30 PM)

Feb. 8—Sofia: Stratospheric Observatory for Infrared Astronomy

Dr. Eric Becklin of the University of California, Los Angeles will describe the project to develop and operate a 2.5-meter infrared telescope in a Boeing 747-SP and examples of the science programs to be carried out when it goes into operation in 2006.

Feb. 15—Cosmic Tennis

Dr. Roger Blandford of Stanford University will describe how physicists observe Ultra High Energy Cosmic Rays with energies as great as those of a well-struck tennis ball and how astrophysicists are trying to explain how they are accelerated.

Feb. 22—Novel Friction Properties of Quasicrystals

Dr. Jeong Park of the Lawrence Berkeley National Laboratory will describe the nanomechanical properties of quasicrystals probed with a scanning probe microscope, and discuss how their low friction is correlated with their exotic atomic structure. Contact <http://phys-astro.sonoma.edu/wpd/>

CLASSIFIED ADS

WANTED DEAD OR ALIVE: Celestron C-11 or C-11 OTA. Contact Howard Hansen at 707-575-7484.

FOR SALE: Meade LX 200 8-inch F/10 with many accessories, i.e.: Solar filter, ocular Televue, reticle eyepiece, focal reducer, Skyglo broadband, Barlow, off-axis guider, EZ finder, reflex sighter, battery, etc. Original value \$3876, asking \$1000 or BAO. Contact Norma Starnier at 526-7439 mornings and evenings.

THE MAN WHO CHANGED EVERYTHING: THE LIFE OF JAMES CLERK MAXWELL

Book Review by Ralph Mansfield

The names Isaac Newton and Albert Einstein are well known in modern society but very few individuals are aware of the accomplishments of James Clerk Maxwell. As a mathematician and astronomer, I did know about Maxwell's investigations in electromagnetism but I learned much more about our debt to Maxwell when I read this interesting book by Basil Mahon.

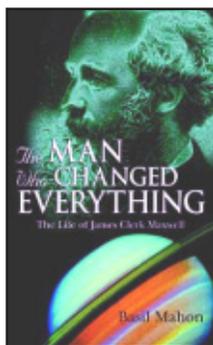
I had known from my early work in astronomy that the planet Neptune was pre-discovered computationally Leverrier and Adams in 1845. Reading the book, I learned that John Couch Adams had been a professor of mathematics at Cambridge University. Maxwell was a student then and took the Mathematical Tripos examination, an annual honorary contest. Students competed intensively for the best scores on the Tripos, and Maxwell was one of the winners.

After Cambridge he became professor of physics at King's College where he carried out investigations into color vision which became the physical basis for modern day color television. He laid the bases for the kinetic theory of gases and statistical dynamics which became highly important in present day thermodynamic applications, ideas utilized by Max Planck and Heinrich Boltzman in their theories of heat transmission. Maxwell then turned his attention to the newly discovered relationships between electricity and magnetism where the pioneers had been Ampere, Volta, Ohm and others.

One important conclusion was that the two elements are really one study, electromagnetism. Moreover, electromagnetism travels in waves at the speed of light and, in fact, light is an electromagnetic wave phenomenon. Heinrich Hertz later proved the wave structure of light and showed that frequency is inversely proportional to wave length. So the frequency of wave motion came to be designated in Hertz instead of Maxwells.

But I want to comment on the ramifications of Maxwell's investigative results into electromagnetism. A young patent clerk in Switzerland learned of them and used the seminal ideas to develop the General Theory of Relativity and the Special Theory of Relativity which replaced Newton's Gravitation Theory with new concepts applicable to astronomical events affected by the constant speed of light. That was Albert Einstein's contribution based on Maxwell's results. A young Italian, who took up residence in London, studied Maxwell's concepts of electromagnetic wave theory and developed radio transmission. That was Guglielmo Marconi. And then followed radar, so useful for guiding aircraft flights, and cybernetics and bridge designs, spinoffs from Maxwell's investigations of control theory and static stresses on jointed structures.

James Clerk Maxwell died in 1877. There are no significant memorials to Maxwell in England, but in mathematics he is remembered for his famous equations for CURL and DIVERGENCE of physical phenomena. The book is a wonderful read and one can skip over the mathematics.



Making Your Own Comet!

with Melissa Downey

YA February 11 Meeting, 7:30PM, Apple Blossom School

Have you ever wondered what a comet is made of or felt the urge to make one with your own two hands? Then plan to attend the February Young Astronomers meeting because our president Melissa Downey will be giving a fun-filled and hands-on presentation where we will be making our own comets! As always, bring a friend to help you make the perfect dry-ice comet, and a telescope for viewing after the meeting.

DISCOVERING COMET MACHHOLZ

Excerpted from an article by Don Machholz in the SJAA Ephemeris

When I awoke at 3:20 on the morning of Friday, August 27, 2004, I was going comet hunting from my back deck with a 6-inch, f/8 reflector Criterion Dynascope that cost \$200. At 4:12 I picked up a faint fuzzy object, rather small. I searched detailed star maps to see if there were any known galaxies or nebulae in the area. Nothing was shown.

I made a drawing of the area, showing the location of the comet in relation to the surrounding stars. If it is a comet it should show motion in an hour's time. This detailed drawing would help determine both the rate of travel and the direction of travel. This drawing was made to show the view I had in the telescope, with south to the top. I went to a web site which lists known comets (<http://www.aerith.net/>). It showed no comets in the area.

At 4:37 AM I went out to my observatory and uncovered the 10-inch reflector, using an eyepiece giving 64x. I could see that the object was fuzzy, round and made a mental note of where it was in relation to the nearby stars. It seemed to me like it had moved a bit. I began writing up the report that I would need to send to the Smithsonian Astrophysical Observatory's Central Bureau for Astronomical Telegrams (CBAT) in order to get the comet confirmed and recognized. They are the clearinghouse for new comet discoveries.

Also during this time I went to a web site to see if this part of the sky had been covered by the automated search programs. It wasn't. During the past few years automated satellite searches instruments have picked up many of the comets that amateurs

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Sonoma Skies, February 2005

Unveiling Titan

There's no place like home. Except, maybe, for Saturn's largest moon, Titan. A recent mission to this moon has found that it looks a lot like our planet. The journey began 7 years ago, when the Cassini spacecraft was launched on a mission to explore Saturn. Cassini went into orbit around the planet on July 1, 2004. Then, on Dec. 25, 2004, the European Space Agency's Huygens probe separated from the craft and coasted toward Titan. On Jan. 14, it plunged into the moon's atmosphere.

The probe spent 2.5 hours gliding through Titan's atmosphere. And it survived on the moon's surface for 70 minutes before its batteries ran out. All the while, it relayed information and pictures back to Cassini, which sent them to astronomers in Germany.

The scientists were surprised at how Earth-like Titan appeared. Huygens landed on ground that was hard on top but soft underneath, somewhat like wet sand. The researchers were able to decipher the ground's texture by measuring the force of the probe's impact and comparing it to the effect of forces on various types of terrain on Earth.

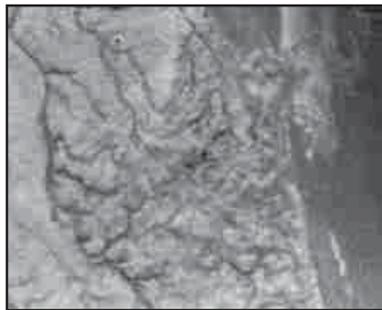
Huygens took spectacular pictures of drainage channels leading to a shoreline. Photos also showed ground fog and structures that look like sandbars.

Astronomers are especially interested in Titan's chemistry, because the moon might provide insights into Earth's early history. Just as Huygens landed, it measured a sharp rise in methane gas. Now, scientists suggest that the moon's channels were carved by liquid methane and ethane, instead of by water as on Earth.

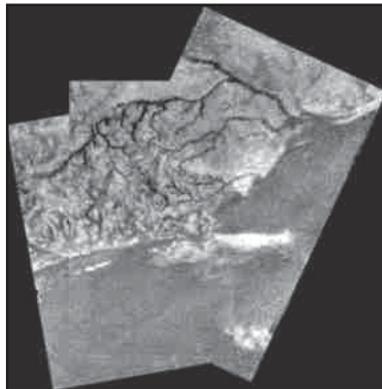
Titan's rocks appear to be made mainly of water-ice. Some of them look like river rocks on our planet. They were probably made round by rolling around in liquid. Titan and Earth have something else in common, too: nonstop weather and geological activity. Huygens showed no major craters on the moon's surface. Icy eruptions and rain probably keep the landscape rugged and constantly changing.

Another mission to Saturn's famous moon probably won't happen again for decades. But when spacecraft do eventually get there again, there will probably be plenty more surprises.

(Adapted from an article by Erica Sohn with Science News)



One of the first Huygens images of Titan's surface showed drainage channels leading to a shoreline.



This view from the Huygens probe shows ridges, river channels on the surface of Titan.

MEETING RECAPS AND FINLEY AWARD

At the December 10 meeting Vice-President Olivia Turnross gave a great presentation on her Lunar 50 project, detailing her observations of 50 major observable features on the moon, as listed by the Astronomical League. Len Nelson displayed some of his extensive moon photograph collection during Olivia's talk.



At the end of the meeting everyone was thrilled and inspired when Olivia was presented with a \$200 Finley Grant by the SCAS. The grant was established by Dr. William Finley, who provided \$500 to SCAS with the goal of inspiring Young Astronomers to create astronomy-related projects of interest to YA members. Olivia is the first YA member to submit a project to qualify for a Finley Grant. To recognize her accomplishment, Dr. Finley was in attendance. He and SCAS president Keith Payea presented the award to Olivia. Dr. Finley has generously provided funds to re-establish the grant account to its original \$500 level, allowing more YA members to pursue projects of interest. Thank you Dr. Finley and SCAS, and congratulations, Olivia!

Our January 14 meeting was also very intriguing. Duane Bellinger gave a presentation on meteorites and along with this brought many of those he has collected over the years.



All of the Young Astronomers and parents had fun holding and touching these meteorites which ranged in size from small pebbles to heavy, iron-rich rocks. All of those who attended had a great time discussing and learning about this fascinating subject.

YA INFORMATION

Meetings start at 7:30 PM at Apple Blossom School, 700 Water Trough Road, Sebastopol in the Multipurpose Hall—the large building on the right side of the school. Meetings are open to all students in Sonoma County, and are held the second Friday of each month. **Telescope viewing** is held in the upper parking lot after the meeting.

Directions: From Hwy. 116 (Gravenstein Hwy.) in Sebastopol, turn west onto Bodega Ave. Continue on Bodega Ave. almost two miles to Water Trough Rd. Turn left and go about 1/3 mile to the school, on your right. From Hwy. 12, go straight through Sebastopol, past Main Street, and continue as above.

YA ELECTED OFFICERS

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**Sonoma County
Astronomical Society**

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Sonoma Skies
February 2005

FEBRUARY 9

Bert Katzung
Astro-Imaging

Sparks *continued from Front Cover*

Mirrors: Believe it or not but, except for being silvered, they are done! A large part of this feat was due to a number of prior Striking Sparks winners returning their scopes to us for refabrication.

Workshop: Will be held Saturday, February 5th in Cloverdale under the able supervision of Lynn Anderson.

Applications: These were mailed to schools in Sonoma County on Monday, January 3. They are due back no later than February 19 and will be judged on Saturday, February 26.

Final Assembly: Scheduled for Saturday March 5.

Striking Sparks Day: Saturday, March 19 at Proctor Terrace School. This event requires a large group effort. We need volunteers to step forward to coordinate or assist these areas:

1. Welcome table and raffle ticket sales.
2. Table set-up for approximately 120 people, including pot luck and coffee/soft drink tables.
3. Kitchen coordination
4. Photography - Merlin Combs
5. Stage setting: Larry McCune coordinates but help is needed
6. Assemble poster boards with winning essays
7. Coordinate the evening's raffle and set up the prize table
8. Worthy Raffle Prizes! Contact me if you have astronomy-related items to donate. Proceeds go to the 2005 YA activities fund.
9. Other: To Be Determined. Watch this space in the March issue of Sonoma Skies!

Machholz *continued from Page 6*

would normally find. The comets are named after the programs that find them: LINEAR, NEAT, LONEOS, Spacewatch, Catalina. A spacecraft named SOHO covers the area near the sun; its images are posted on the Internet and anyone viewing them can find (usually) tiny comets that evaporate as they approach the sun. These comets are named SOHO. With the advent of such searches, many amateurs have ceased visual comet hunting. I have continued nonstop, searching for at least an hour per month each month since I began on January 1, 1975, doing up to 553 hours of searching per year.

Shortly after 5AM I was out at the 10" telescope, making an estimate of the comet's brightness, size and shape. It had no tail. I later learned that its actual motion was 20 arcminutes (one third of a degree) per day to the east and slightly south. So in one hour's time it had moved less than an arcminute, a very small amount. When I could no longer see the comet, I came in to report it. I assembled the e-mail and sent it to the Central Bureau for Astronomical Telegrams (CBAT). I then faxed the same message to them. I got ready to go to work.

It was six hours before I heard the news from Dan Green of the CBAT. The comet was confirmed, imaged by Robert McNaught and G. Garrard. It was named Comet C/2004 Q2, the next day (Machholz) was added to it.