



the Webfooted Astronomer

The Seattle Astronomical Society

November 2004

Special points of interest:

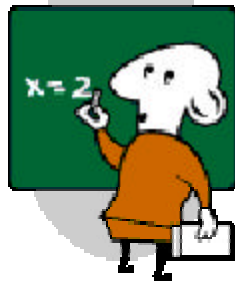
- November SAS Elections
- Spotless Sun!
- Second Black Hole in Milky Way

November Meeting:

Wednesday, November 17th.

Speaker: "Professor Karl Schroeder"

Topic: "A Peripatetic and Didactic Discussion of Astronomy Pedagogy"



The meetings begin at 7:30 P.M., but come as early as you like since many members will be there ahead of time to share their latest activities in astronomy. In addition, we have a number of active Astro-photographers, and generally reserve time to show slides of their latest efforts.

Meeting Information

Speaker: Professor Karl Schroeder

Wednesday, November 17

7:30 p.m.

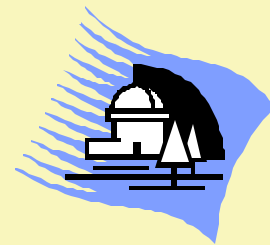
Physics-Astronomy Building

Room A102

University of Washington

Seattle

Come early at 7 p.m. for coffee and snacks and to visit with your fellow members!



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Seattle Astronomical Society

Address

PO Box 31746

Seattle, WA 98103-1746

SAS Info Line: 206-523-ASTR

Web Page:

<http://seattleastro.org>

WebfootWeb: webftweb@scn.org

E-mail: information@seattleastro.org

Board & Committees

President: Stephen Van Rompaey,

425-564-8619,

president@seattleastro.org

Board Chairperson: Mary Ingersoll,

206-246-0977,

chair@seattleastro.org

First VP-Programs: Open,

programs@seattleastro.org

Second VP-Education: Mike Langley,

425-241-8094,

education@seattleastro.org

Third VP-Membership: Janice Edwards,

membership@seattleastro.org

Fourth VP-Publicity: Mark deRegt,

publicity@seattleastro.org

Treasurer: Jim Peterson,

206-524-6015,

treasurer@seattleastro.org

Secretary: Thomas Vaughan,

425-445-5371,

secretary@seattleastro.org

Astronomical League: Bob Suryan,

206-789-0599,

alcor@seattleastro.org

Webmaster: Paul Rodman,

425-889-8273,

webmaster@seattleastro.org

Club Telescopes & Equipment: Thomas Vaughan,

425-445-5371,

equipment@seattleastro.org

Special Interest Groups

Dark Sky Northwest: Bruce Weertman,

bruce@weertman.com

Telescope Makers: Peter Hirtle,

206-363-0897,

atm@seattleastro.org

Astrophotography: Keith Allred,

425-821-5820,

astrophoto@seattleastro.org

Vive La Lune (Moon): Pat Lewis,

206-524-2006,

lunar@seattleastro.org

Sidewalk Astronomers: Paul Ham,

206-522-7410,

paulham@webtv.net

Webfooted Astronomer

Editor: Saurabh Saxena

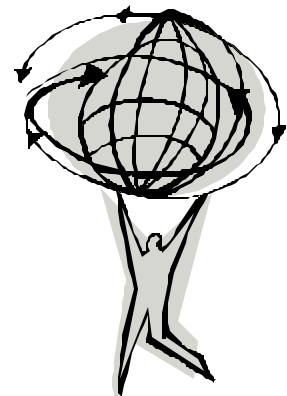
Co-editor: Rose Millican

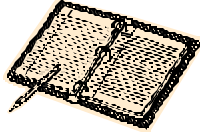
editor@seattleastro.org

Circulation Managers: Pat Lewis & Joanne Green,

206-524-2006,

circulation@seattleastro.org





From the President's Desk...

By Stephen Van Rompaey

First, I would like to thank Bruce Kelley for volunteering to run for VP Activities. Bruce will also start his service a little early and will be working to find speakers for our November and December meetings prior to the start of his official term. I would also like to thank Rick and Becky Eckel for volunteering to chair our banquet committee. We will be holding our awards banquet on Saturday, January 15th, and we will publicize information about the details of the banquet soon.

Position	Candidate
Board Chair	Stephen Van Rompaey
President	Thomas Vaughn
VP Activities	Bruce Kelley
VP Education	Burley Packwood
VP Publicity	Rod Ash
Treasurer	Scott Cameron
Secretary	(Still Open)

So, we still need someone(s) to volunteer to be the club Secretary. According to Tom Vaughn it takes about an hour each month to prepare the minutes from the club meeting and the board meeting. Obviously, this is an inspirational board position because it led Tom to volunteer to serve as the club's next President. We will be holding our elections at the November meeting.

Karl Schroeder has announced the formation of a Young Astronomers Club. Last school year Karl partnered with Parkwood Elementary school in building a 6 inch telescope at his home. The lead adult, a parent of one of the students involved in the construction of the scope, was Margaret Stoermer. Margaret's desire to continue working with the students, astronomy and their telescope has led to the formation of a young astronomers club. Initially planned to be a school club it evolved into a group open to all interested young astronomers. The first meeting was held in October that

included a short program dealing with the construction and use of a planisphere, followed by games and snacks. Future monthly meetings will be held at the library, for about an hour and a half, in the early afternoon, on star party weekends.

The basic plan for future meetings will about the same, i.e. a short educational session, followed by some astronomy related games or events, ending with snacks. Weather permitting they will then meet at Paramount Park for viewing at dusk. The next meeting of the Young

Astronomers Club Special Interest Group is scheduled for Nov. 20th at the Shoreline library, 11-12:30pm. If you have any questions, please contact Karl Schroeder at KSchroe225@aol.com or by phone at (206) 362-7605. ✉

**Young Astronomers Club
has been launched
and plans to meet
in the early afternoon
on star party weekends.**



Some Stellar Facts

Our solar system extends close to 1/2 light years from the sun, to the suspected boundary of the Oort Cloud.

Pluto has the largest comparative satellite in the solar system—Charon is nearly half as large as Pluto.

SAS October 2004 Club Meeting Minutes

The meeting began with these announcements:

There was no speaker for this meeting. We have been without a VP of Programs for several months, and Steve didn't have time this month to find a speaker. Good news! A volunteer stepped forward to help find speakers: Bruce Kelley

The Observatory at Manastash Ridge is looking to do more outreach, and has approached the club about opening their site to our members. This could possibly include improvements such as observing pads. Members noted that the seeing was typically better than Table Mountain, but access was rough. Stephen will look into this further.

We are still looking for a Banquet Chair. Good news! Two volunteers have agreed to tackle the responsibility: new members Rick and Becky Eckel.

Elections are coming! We will be voting for elected positions at the November meeting. Here are the current candidates:

President:	Thomas Vaughan
VP Programs:	Bruce Kelley
VP Education:	Burley Packwood
VP Membership:	Janice Edwards
VP Publicity:	Rod Ash
Treasurer:	Scott Cameron
Secretary:	<none>

A Summer Vacation Tracking Down UFOs



This article was written by Diane K. Fisher. It was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Erin Schumacher's summer job for NASA was to look for UFOs. Erin is a 16-year-old high school student from Redondo Beach, California, attending the California Academy of Mathematics and Science in Carson. She was one of ten students selected to work at NASA's Jet Propulsion Laboratory (JPL) in Pasadena as part of the Summer High School Apprenticeship Research Program, or SHARP.

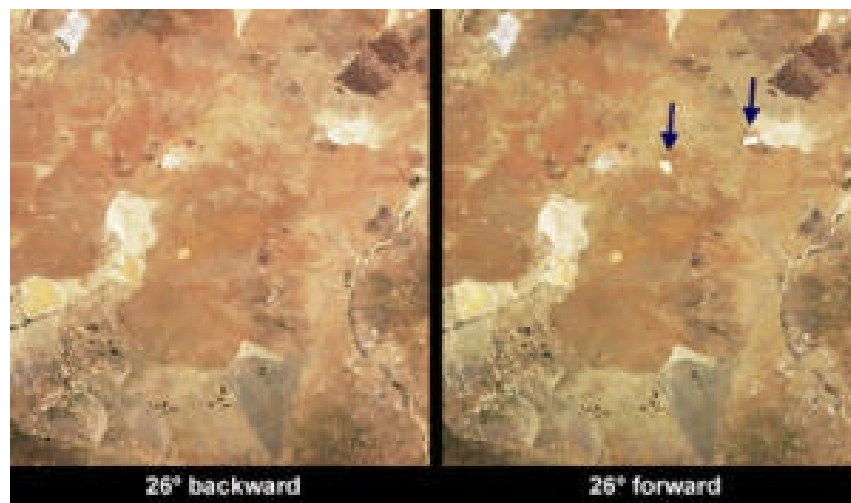
But is studying UFOs a useful kind of NASA research? Well, it is when they are "unidentified flashing objects" that appear in certain images of Earth from space. Erin worked with scientists on the Multi-angle Imaging SpectroRadiometer (MISR) project to track down these mysterious features. MISR is one of five instruments onboard the Earth-orbiting Terra satellite. MISR's nine separate cameras all point downward at different angles, each camera in turn taking a picture of the same piece of Earth as the satellite passes overhead. Viewing the same scene through the atmosphere at different angles gives far more information about the aerosols, pollution, and water vapor in the air than a single view would give. Ground features may also look slightly or dramatically different from one viewing angle to another.

Erin's job was to carefully examine the pictures looking for any flashes of light that might be visible from just one of the nine angles. Such flashes are caused by sunlight bouncing off very reflective surfaces and can be seen if a camera is pointed at just the right angle to catch them. Because the satellite data contain precise locations for each pixel in the images, Erin could figure out exactly where a flashing object on the ground should be. Her job was then to figure out exactly what it was that made the flash-in particular, to see if she could distinguish man-made objects from natural ones.

When Erin began working at JPL, scientists on the MISR project had already identified two large flashes out in the middle of the Mojave Desert in Southern California. These turned out to be from solar power generating stations. Soon, Erin began finding

flashes all over the place. She learned how to apply her math knowledge to figuring out how the objects would have to be oriented in order to be seen by a particular MISR camera. One time, she and a team of MISR scientists and students went on a field trip to the exact locations of some flashes, where they found greenhouses, large warehouses with corrugated metal roofs, a glass-enclosed shopping mall, and a solar-paneled barn. For some flashes, they could find nothing at all. Those remain "UFOs" to this day!

Learn more about SHARP at <http://www.nasasharp.com> and Earth science applications of MISR at <http://www-misr.jpl.nasa.gov>. Kids can do an online MISR crossword at http://spaceplace.nasa.gov/en/kids/misr_xword/misr_xword1.shtml. ☒

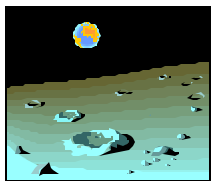


Two cameras on MISR made these images of the same part of the Mojave Desert. The camera pointed at an angle of 26 forward saw the flashes from two solar electric power generating stations. These objects are nearly invisible at the other angle.



November 2004

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3 UW Public Viewing Night 7:00 pm	4	5 ☾	6
7	8	9	10	11	12 ●	13 Tiger Mountain/Poo Poo Point Star Party (members only!)
14 Astrophotography/ Imaging SIG Meeting 2:00 pm	15	16	17 Monthly SAS Meeting UW Room A102 7:30 pm UW Public Viewing Night 7:00 pm	18	19 ☾	20 New Member Orientation 1:00pm Green Lake and Paramount Park Star Parties
21	22 SAS Board Meeting 7:00 pm	23	24	25	26 ○	27 Amateur Telescope Makers SIG Meeting 6:30 pm
28	29	30	1	2	3	4



December 2004

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	1	2	3	4
☾ 5	6	7	8	9	10	11 Tiger Mountain/Poo Poo Point Star Party (members only!)
● 12	13	14	17 Monthly SAS Meeting UW Room A102 7:30 pm	16	17	☾ 18 Green Lake and Paramount Park Star Parties Paramount Park Star Party 7:00PM
19	20 SAS Board Meeting 7:00 pm	21	22	23	24	25
○ 26	27	28	29	30	31	1

Advertisements

By Mary Ingersoll
Chairman of the board
Seattle Astronomical Society 2003-2004

LAST CALL!

For Seattle Astronomical Society logo shirts.

Submit your orders, gift certificates and fill your Christmas gift list by November 15th.

No more orders will be taken after that date.

Shirts ordered will be ready for pick up at the December 15th meeting, or mailed to your home address.

See the website:

<http://www.seattleastro.org/shirts>

Download the order form, and mail with your check to the club post office box today!

You'll be glad you did.

By Jim Peterson <jimpe@jppintl.com>

FOR SALE: 2005 Books and Calendars

There are still a small number of the following items available for purchase on a first-come, first-served basis at the November monthly meeting. Any items not sold will again be offered for sale at the December meeting. Please bring a check or have exact change.

ITEM	PRICE
Astronomy 2005 Calendar (14 left)	\$7.00
Year-In-Space 2005 Desk Calendar** (6 left)	\$10.00
RASC Beginner's Handbook (New edition) (1 left)	\$17.00
RASC 2005 Observer's Handbook (12 left)	\$17.00
RASC 2005 Calendar (1 left)	\$10.00

**Desk calendar did not arrive in time for October sale and have not arrived yet, but are expected in time for the November meeting.

By Joanne Green

FOR SALE: Fully equipped dark -sky observing site! Located 27 miles east of Bend in the High Desert of Central Oregon. Ten acres with house trailer, solar power, large water tank, septic tank and drain field. Adjoins my 10 A parcel, among lots being rapidly bought up by amateur astronomers from Seattle (Joanne and Pat, Keith Allred), Portland, Eugene, Kitsap County, and Alaska.

Sparsely settled area with no public power, hence, no yard lights! With altitude near 4,000 ft, generally clear skies and low air pollution, we view stars right down to the horizon with little atmospheric dimming. No biting insects. Owner asks \$39,950 but I would offer \$30,000. See picture on realtor's website:

<http://www.tare.net/showdetails.cfm?id=2408791>

The Associates Real Estate, 715 West Third St, 715 West Third St, Prineville, OR 97754, phone Beverly Prothro at (541) 447-3940.

By David Dorais <daviddorais@yahoo.com>

FOR SALE: I have the following accessories for sale---

Orion 9X50 straight through finderscope---- \$79.95 or best offer

Orion 1 1/4" correct image star diagonal---- \$39.95 or best offer

Orion 6 pocket soft Velcro filter case---- \$8.00 or best offer.

All items hardly used and in good to excellent condition, were purchased in March/04.

Need cash for Yule season presents, don't be afraid to offer a low bid. Thanks.

By John Siple [jseybel@hotmail.com]

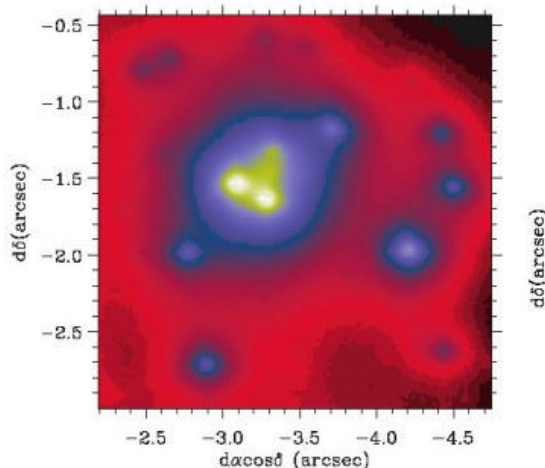
WANTED: Older Tasco Model #20TE or #20T Observatory Refractor Telescope, 108mm. (4.25") f/15. Tasco sold these large pier-mounted scopes from the early 1960's until 1979. They came with a 2-part metal pier, pier legs, 40mm. guidescope, 30mm. finderscope, large focuser, and a heavy-duty equatorial mounting. I will purchase or trade for one in ANY condition, even if it is missing parts or is damaged. Check those attics and basements for one!!!

Email at jseybel@hotmail.com or call John W. Siple at (541)-758-8326 evenings and weekends. Will travel hundreds of miles to inspect and purchase.

Space Bits

Second Black Hole at the Heart of the Milky Way

French/US team of astronomers have discovered a second black hole is lurking at the heart of our Milky Way galaxy, completely separate from the supermassive black hole that we've known about for years. This new object, IRS 13E, contains only 1,400 stellar masses, which is much less than the 4 million stellar masses of our supermassive black hole. IRS 13E probably used to be located far away from the galactic center, where a cluster of stars could safely form. All that's left now are a few massive stars whipping around the black hole as it spirals towards the centre of our galaxy.



Link: <http://www.gemini.edu/index.php?option=content&task=view&id=108> ☒

Solar Minimum Nearing—Sun Found Blank

On October 11, solar astronomers saw something they haven't seen on the Sun in six years... nothing. Not a single sunspot. Within a couple of days, of course, a sunspot popped up, and they're on the Sun right now. This is a clear indication to astronomers that the Sun is on its way to the low point of its 11-year cycle of activity, called the "solar minimum". During the solar minimum, the Sun can be without spots for days or even weeks, and solar flares subside. Astronauts will breathe a sigh of relief; it's a safer time to be out in space.



The blank sun on Oct. 11, 2004, photographed by the ESA/NASA Solar and Heliospheric Observatory

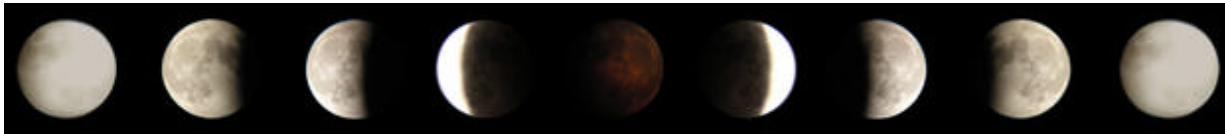
Link: http://science.nasa.gov/headlines/y2004/18oct_solarminimum.htm ☒

NASA Announces May 2005 For Shuttle Flight

Grounded since the Columbia disaster, the space shuttles are tentatively expected to return to flight as early as May 2005, according to NASA officials. The agency updated their launch schedule on Friday, targeted Discovery's launch window to be open from May 12 to June 3, 2005. The shuttles have a lot of work to do; current plans are calling for 28 more flights until 2010 to complete the construction of the International Space Station, after which the shuttles will be retired.

Link: http://www.universetoday.com/am/publish/may_2005_shuttle_rtf.html ☒

Lunar Eclipse on Wednesday October 27, Marks the Dedication of Theodor Jacobsen Observatory



Photographed by: Saurabh Saxena

Dr. Theodor Jacobsen (the astronomer who started what is today's UW Astronomy Department) used the observatory for his classes and for public viewing. He taught many, many undergraduates about the night sky, and it is only appropriate that the undergraduates now continue what he started. In 2001, astronomy undergraduates "adopted" the Observatory and reopened it to the public. In early 2004, the Regents of the University of Washington honored Dr. Jacobsen's dedication to astronomy by naming the "UW Campus Observatory" the Theodor Jacobsen Observatory. The Seattle Astronomical Society has been recognized for the generous donation of time, expertise, and money to the Observatory. The open-houses at the Observatory continues with SAS's ongoing support in the dome and with the maintenance and repair of the telescopes.



The Dedication Ceremony.
David Hodge, Robert Kraft, Bruce Balick,
Woodruff Sullivan (not in the picture)

Link: <http://www.astro.washington.edu/observatory/> ☒

We promise you the sun, moon and stars and we deliver...

The Seattle Astronomical Society is an organization created and sustained by people who share a common interest in the observational, educational, and social aspects of amateur astronomy. Established in 1948, the SAS is a diverse collection of over 200 individuals. A variety of programs and activities is presented by the SAS throughout the year. Monthly meetings feature speakers on a wide range of topics, from the Hubble Space Telescope to electronic imaging to personal observing experiences. The club holds public observing "star parties" at Green Lake every month, dark sky observing parties outside Seattle, plus such activities as meteor watches, public telescope and astronomy displays, National Astronomy Day, and an annual Awards Banquet.



We're on the Web!
www.seattleastro.org

The Seattle Astronomical Society

PO Box 31746
Seattle, WA 98103-1746

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|--------------------------|---|---------|
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SEATTLE ASTRONOMICAL SOCIETY

PO BOX 31746

SEATTLE, WA 98103-1746

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