

Seattle Astronomical Society • June 2003

## June Meeting

*Speaker:* Stephen Van Rompaey

Proposed program with  
UW Campus Observatory

Wednesday, June 18  
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!

## June Meeting A Discussion of a Proposed New Program with the UW Campus Observatory

*By Stephen Van Rompaey*

As you may know, the UW Campus Observatory offers public viewing nights on the first and third Wednesdays of each month. Typically a speaker presents a talk on an astronomical topic, which is followed by viewing with the observatory's 6" refractor (weather permitting), and a tour of the observatory. Dr. Ana Larson of the UW As-

tronomy Department holds these viewing nights primarily with the assistance of undergraduate astronomy majors who volunteer to participate in the observatory's public outreach program. **Dr. Larson and I met to discuss how the SAS could become involved with the UW Campus Observatory** to assist with their viewing nights and also how the SAS might use the observatory to enhance our own outreach and educational programs. This discussion resulted in a potential program with four distinct areas of activity. I presented this proposal to the SAS Board at the May Board meeting and received approval to present this proposal to the club's membership. At our June meeting I plan to present the proposed new program with the UW Campus Observatory for discussion and then ask for the SAS membership to vote on whether to undertake this program.

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# Seattle Astronomical Society

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## From the President's Desk...

by Stephen Van Rompaey

Although the big news for June is the new proposed program with the UW Campus Observatory, there are a number of other important items of club business that need to be brought to your attention. First, **Astronomy Day was a great success.** Both the Pacific Science Center and the UW Astronomy Department held Astronomy Day activities on the same day, but the SAS had plenty of telescopes and well-staffed information tables at both sites. In addition, the skies cleared for the public star parties held at Green Lake and Cromwell Park that night, and we had strong member turnout at both locations and a lot of public participation.

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**Anyone who is interested in volunteering to be VP-Programs or Banquet Chair should contact me as soon as possible.**

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Brian Allen, who began the year as our VP-Programs and Banquet Chair, has resigned and so I'm **looking for two volunteers** to step forward to help the club with these important positions. The **VP-Programs** identifies speakers for the club's monthly meeting and introduces the speaker. In addition, the VP-Programs schedules the speaker for the annual banquet (with the help of the Board if needed) and assists with any

audio/visual aids needed for their talk. The VP-Programs is also a member of the board and is involved in the governance of the club. The **Banquet Chair** is responsible for identifying a restaurant for the banquet, and making formal arrangements between the club and the restaurant concerning food and cost. The Banquet Chair collects the checks/cash from members, keeps track of all reservations, and coordinates these activities with the Treasurer. Anyone who is interested in these positions should contact me as soon as possible.

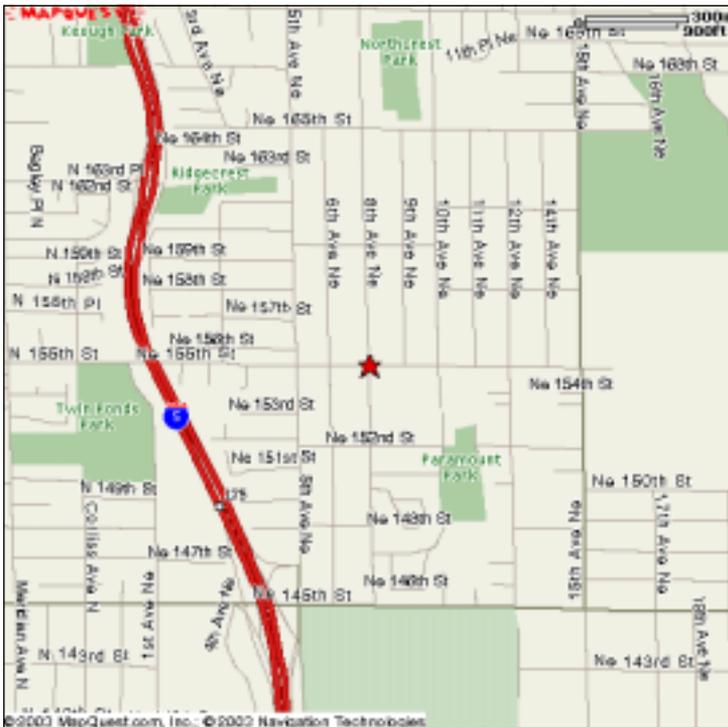
The SAS will have a booth at this year's **Trailfest 2003** that is being held at Rattlesnake Lake, on Saturday, July 19 (the weekend before Table Mountain). The plan is to have telescopes available for solar observing during the day and then to hold a star party at Rattlesnake Lake later in the evening. Any members interested in staffing our booth, bringing a telescope for solar viewing, or attending the star party, please contact

*continued on page 4*

President's Message: continued from page 3

Mark de Regt, our VP-Publicity. In other star party news, effective June 9, the star party in Shoreline will be **moved from Cromwell to Paramount Park** (see map, below).

Finally, I have been contacted by some club members who are interested in the idea of holding a **monthly public star party at a south Seattle site**. This might be a park or area with "high" public visibility in south Seattle, Renton, or in that vicinity. Please contact me if you would like to propose an observing site.



Paramount Park is located at 810 NE 155th Street in Shoreline.

## Part I

According to Dr. Larson, one of her needs is to have a knowledgeable amateur astronomer in the observatory dome during viewing nights. While her students are enthusiastic about astronomy and want to use the telescope, they simply are not familiar with the sky. If the telescope gets bumped off an object, most students don't know how to find the object again. A knowledgeable amateur will be able to help locate interesting objects for viewing and act as an additional source of astronomical

information. *Dr. Larson is asking that an SAS member be available to assist in the dome during each viewing night during the year.*

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**Dr. Larson is asking that an SAS member be available to assist in the dome during each viewing night during the year... At some future date, she may ask that two SAS members be available each**

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Another area of concern for Dr. Larson is having an adequate number of astronomy student volunteers to maintain the program in coming years. In the recent past, there have been a sufficient number of undergraduates interested in working at the observatory and staffing has not been a problem. It is possible, however, that in future years there may not be enough students to adequately staff her program; in that event, Dr. Larson would ask for further assistance from the SAS. *At some future date, Dr. Larson may ask that two SAS members be available to assist in the dome and observatory during a viewing night.*

The Board discussed what would be required to provide this level of assistance and concluded that a core group of four to six members would be sufficient. Each member of this SAS Observatory Team would be trained on how to use the observatory's 6" refractor and dome, about other instruments found at the observatory, and about the observatory's history. A team leader would be appointed to work with Dr. Larson with scheduling and to insure that SAS team members were properly trained for observing nights.

## Part II

During the past year, the SAS Board explored a variety of options in an

*continued on page 6*

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**Under this proposed program, the SAS can use the UW Campus Observatory for meetings, storing supplies and telescopes for a Youth Group.**

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attempt to find a club facility. One of the motivations for finding a club facility is to have a place for a Youth Group to meet and store its equipment. The UW Campus Observatory has a classroom that can be used for Youth Group meetings, cabinet space for educational materials, and a secure closet for storing telescopes. *Under this proposed program, the SAS can use the UW Campus Observatory for meetings, storing supplies and telescopes for a Youth Group.*

It is the Board's view that a necessary precondition for establishing an SAS Youth Group is a centrally located building for meetings and a place to store supplies and telescopes. The UW Campus Observatory is easy to find and should be a place where parents would be comfortable with having their children meet. The next step in establishing a Youth Group would be to identify members who would volunteer to create a curriculum, organize, and then run this group.

### **Part III**

Members of the SAS have provided critical assistance to the UW Campus Observatory in the past for the restoration and maintenance of the 6" refractor, its mount, and the observatory dome. *Dr. Larson invites the SAS membership to continue to provide this technical assistance and to become involved in enhancing and restoring other instruments at the observatory.* No specific work is proposed, but the underlying goal is to restore all of the instrumentation to working order over time.

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**Dr. Larson invites the SAS membership to continue to provide this technical assistance and to become involved in enhancing and restoring other instruments at the observatory.**

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## Part IV

The SAS will continue to hold its monthly meetings in the auditorium at the Physics-Astronomy Building, but occasionally the SAS needs a place to hold a smaller meeting. *The SAS will be able to use the UW Campus Observatory to hold these meetings and to schedule our own viewing evenings with the observatory's 6" refractor.*

In the past, the SAS Board meetings have been held at a board member's house and we may choose to hold the board

meetings at the observatory in the future. Other special interest groups may prefer to use the campus observatory as well. Use of the UW Campus Observatory for these other activities would be contingent upon approval by the UW Astronomy Department.



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***The primary function of the SAS on viewing nights is to facilitate student activity in astronomy outreach, not to replace it.***

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***The SAS will be able to use the UW Campus Observatory to hold smaller meetings and to schedule our own viewing evenings with the observatory's 6" refractor.***

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The Board believes that this proposed program is an excellent opportunity for the SAS to expand its outreach and educational activities, and to meet a number of long-term club goals. Clearly, it requires a commitment by the membership to support Dr. Larson and her program. Initially, that may not require a lot of effort, but we must be prepared to provide greater assistance during those years

when there are not enough students to staff the program. One underlying principle, however, is that the UW Campus Observatory viewing nights are an opportunity for astronomy students to become involved in astronomy outreach and the primary function of the SAS will only be to facilitate student participation, not to replace it. Starting this program will represent an important turning point for the SAS and I urge all members to attend the monthly meeting for our discussion, especially if you are interested in volunteering for the SAS Observatory Team or if you want to work on establishing a club Youth Group.



# June 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4 UW Public Viewing Night 9 p.m.	5 UW Astronomy Colloquium: Jeremy Mould, NOAO	6	7  Green Lake & Paramount Park Star Parties
8	9	10	11	12	13	14  Amateur Telescope Makers SIG Meeting 6:30 p.m.
15	16	17	18 Monthly SAS Meeting UW Room A102 7:30 UW Public Viewing Night 9 p.m.	19	20	21  Summer Solstice
22	23 SAS Board Meeting 7 p.m.	24	25	26	27	28 Tiger Mountain Star Party 9:30 p.m.
29 	30					

Note that the **Cromwell star parties have moved to Paramount Park**, at 810 NE 155th in Shoreline. (See map on page 4.)



# July 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 UW Public Viewing Night 9 p.m.	3	4	5 Green Lake & Paramount Park Star Parties
6 	7	8	9	10	11	12 Amateur Telescope Makers SIG Meeting 6:30 p.m.
13 Astrophotography/Imaging SIG Meeting 2 p.m.	14	15	16 Monthly SAS Meeting UW Room A102 7:30 UW Public Viewing Night 9 p.m.	17	18	19 Summer Solstice
20 	21	22	23	24	25	26 Tiger Mountain Star Party 9:30 p.m.
<b>Table Mountain Star Party • July 24-26</b>						
27	28 SAS Board Meeting 7 p.m.	29	30	31		

The deadline for **Table Mountain Star Party** pre-registration for this year is June 27, 2003. The deadline for late registration for this year is July 11, 2003. Registration info and form is online: <http://www.tmspa.com/registration.html>

Note: TMSPA will NOT be mailing the registration forms and brochure this year using club lists.



# May Minutes Nearby Stars Project

by Thomas Vaughan

*Speaker:* Jerry Blackwell, Nearby Stars Project

## Announcements

The meeting began with the following announcements:

- ★ Astronomy Day was held on the 10th and 11th of May. SAS Club representatives were at the UW and the Pacific Science Center. Public turnout was good.
- ★ There is a Tiger Mountain star party on Saturday, 31 May, 9:30 p.m.
- ★ Cromwell Park star parties have moved back to Paramount Park. Next scheduled star party is 7 June.
- ★ Brian Allen has resigned from his positions as VP of Programs and Banquet Chair. If any club member is interested in either of those positions, please contact Stephen Van Rompaey ([president@seattleastro.org](mailto:president@seattleastro.org)).
- ★ Trailfest 2003 is an event sponsored by the Washington State Parks. Since we are users of Rattlesnake Lake we have been asked to participate this year. Stephen Van Rompaey and a few others will be there. Contact Stephen if you are interested.
- ★ Some club members have expressed an interest in a South Seattle star party site. If you live in South Seattle or Renton and have an idea for a candidate site, contact Stephen.

## Talk: Nearby Stars Project

The speaker was Jerry Blackwell, the founding member of the Nearby Stars Project. It started out as a personal hobby of his, but he is now paid by NASA to manage their own nearby stars project.

The project started in 1997, when Jerry decided to follow up on a long-standing desire of his to find the 50 nearest stars to Earth. To his surprise, he could only find 26 listed anywhere. It appeared that even professional astronomers didn't have a clear idea of our closest stellar neighbors.

Jerry started his personal (amateur) site dedicated to the nearby stars: [www.nbso.org](http://www.nbso.org). He managed to find amateur and professional astronomers from around the world to help identify the nearest stars. At first he had thousands of queries of interest, but only a few astronomers are still affiliated with the program. It turns out that most of the nearby stars are dim and hard to see, and aren't very interesting by astronomical standards. 95% of the nearby stars are of the M spectral type (red and dim).

Later, Jerry was called in by NASA to help them with their own nearby stars project. The NASA project is called NStars (not to be confused with another NASA NStars project which studies N-type stars). Jerry manages the project, and acts as a liason between professional and amateur astronomers. The NStars web site ([nstars.arc.nasa.gov](http://nstars.arc.nasa.gov)) allows you to search for nearby stars, and has photos of each.

Jerry focuses on stars that are 25 parsecs (81 light years) away or closer. He uses this distance because this is about as far as parallax distance measurements are accurate. He identified 1250 stars within 20 parsecs, and they have 2633 within 25 parsecs. He estimates, based on the number of stars within 5 parsecs, that there are 2500 more stars within the 25 parsec radius that have not yet been observed.

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***95% of the nearby stars are of the M spectral type (red and dim)***

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One of the challenges with the NStars project was to make sense of the wide range of stellar coordinates in the literature (some of dubious quality), and the problem that many stars have dozens of names. The NStars project has tried to list only the most accurate coordinates, frequently gathered from the Sloan Digital Sky Survey, or the 2Mass project.

One of Jerry's suggestions for amateur astronomers was to look in the infrared, since most stars have their spectral peaks in this region of the electromagnetic spectrum. He acknowledged that only a few atmospheric windows exist in this range (that is, the atmosphere likes to absorb most infrared light before it reaches your telescope). However, there are a number of infrared CCDs that can be used.

# The Brewster VLBA Telescope: Q&A with Bob Sanderson, Site Manager



Recently a message was forwarded to the Webfoot Web about a Tacoma Astronomical Society member's visit to the VLBA telescope in Brewster, Washington. I contacted Bob Sanderson, Site Manager at Brewster, to find out more about how others can enjoy tours at Brewster. Here's the scoop!

**Q:** What hours is the telescope open for tours? Is it open to the public at other times, or just for scheduled tours?

**A:** The site is manned Monday through Friday, from 8:00 a.m. to 4:00 p.m. We are open for visitors during those hours, but it is better to schedule a visit ahead of time if possible. The best opportunity for a comprehensive tour is when the telescope is not in use. This occurs at irregular intervals between scheduled observations, and on a predetermined "maintenance day," which happens once (sometimes twice) per week.

**Q:** Are tours pre-scheduled, or are they scheduled as people express interest?

**A:** Tours are scheduled on request.

**Q:** How far in advance should a person schedule a tour?

**A:** We usually know the dates of our maintenance days a month or two in advance, so scheduling within that time frame is pretty easy.

**Q:** Is there a fee to go on the tour?

**A:** There is no charge for a tour.

**Q:** How many people are allowed on each tour?

**A:** We have no particular rules regarding the size of a group. For a detailed tour of the antenna, it is difficult to manage more than 6 people at a time, so if the group is larger than that, we break it up into two or more smaller groups.



*The Brewster VLBA Telescope*

**Q:** Who should people contact if they are interested in scheduling a tour, or finding out more about the Brewster VLBA?

**A:** They can contact me, Bob Sanderson. The phone number here is (509) 689-3731, and my e-mail address is [bsanders@oc.nrao.edu](mailto:bsanders@oc.nrao.edu).

**Q:** What would a person learn/do/see/experience on the tour?

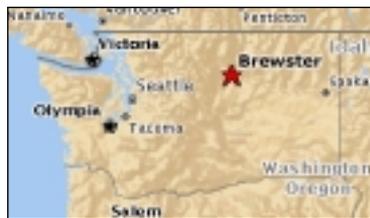
**A:** Probably not a great deal about astronomy! Neither my co-worker (Mark Hofmann) or I are astronomers. We do the routine chores of keeping the recorders supplied with tape, shipping, receiving, housekeeping, etc., and perform maintenance on the electronic/mechanical equipment as needed. Unlike optical instruments, we can't produce any real-time, viewable results from the radio telescope. We can explain in some detail how the experiments are performed, how data is gathered and stored, and what happens to it after we ship it away to the specialized computer know as the VLBA Correlator. For those folks interested in electronics and/or mechanics, the large, steerable antenna and its associated receiving devices offer a look at some unusual and state-of-the-art equipment.

**Q:** Anything else that would be interesting to SAS members?

**A:** Visitors of all ages and interests are welcome, but the thoroughness of a tour is based on a number of practical factors. Children, physically impaired persons, or those with aversion to heights can't ascend the antenna structure, but the antenna can be pointed at the horizon to make most of the "optical path" visible for them. Depending on the number and detail of visitors' questions, a tour can take from 45 minutes to as much as 2 hours.

## Getting There

Head north from Wenatchee on Route 97 to Brewster, about 64 miles. Continue north on Route 97 through Brewster. Turn left at Monse River Rd before bridge crossing Okanogan River. The VLBA Station is 2.8 miles Northwest of the intersection of Monse River Road and Route 97.



National Radio Astronomy  
Observatory  
Brewster VLBA Station  
267 Monse River Rd.  
Brewster, WA 98812  
(509) 689-3731



## **Sixth International Mars Society Convention**

*August 14-17, 2003 Hilton Hotel, Eugene, Oregon*

The Mars Society was founded to further the exploration and settlement of the Red Planet. The International Mars Society convention presents a unique opportunity for those interested in Mars to come together and discuss the technology, science, social implications, philosophy, and a multitude of other aspects of Mars exploration.

Highlights of the convention will include the report from the fourth field season of the Devon Island Flashline Mars Arctic Research Station, the second season of the Mars Desert Research Station, the building of the EuroMARS in Iceland, status reports from the Translife Mars Gravity Biosatellite Mission and Analog Rover teams, panels and debates concerning key issues bearing on Mars exploration and settlement, and keynote addresses from many prominent leaders of the effort to get humans to Mars.

Prior conventions have drawn thousands of participants from all over the world and received extensive press coverage in many leading international media. This year's conference should be the most exciting event to date.

Conference Registration Fees: \$150 for MS members if paid before June 30, 2003, \$240 for non-members. After June 30: \$190 for members, \$280 for non-members. Students and Seniors: \$35 for members, \$80 for non-members.

Registration is now open online at [www.marssociety.org](http://www.marssociety.org).



## Membership Information

Choose from the membership and subscription options listed and mail this form and your check to the address below. For family memberships, please include the names of persons you want to appear in the membership directory. For student memberships, please include verification of full-time student status (such as student ID card). For renewals, please attach magazine subscription renewal cards.

### The Seattle Astronomical Society

**PO Box 31746**

**Seattle, WA 98103**

- |                                                                                     |          |
|-------------------------------------------------------------------------------------|----------|
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