



# The Fremont Peak **OBSERVER**

*Promoting public education in Astronomy*

June 1993

Volume IX No. 2

## **Project ASTRO**

*by Jessica Richter*

Project ASTRO is a new California pilot project funded by the National Science Foundation. Project ASTRO is seeking 40 enthusiastic amateur and professional astronomers who want to visit classrooms and develop partnerships with teachers in grades 4-9 during the 1993-1994 school year. This project was developed by the Astronomical Society of the Pacific.

The goals of Project ASTRO are to support activity-based astronomy education and encourage ongoing partnerships between teachers and astronomers, especially amateur astronomers. The volunteers will visit a local school at least four times during the school year to help lead hands-on activities, give talks on astronomy, organize evening "star parties", and serve as role models and mentors for students.

Selected teachers and astronomers will attend a two-day regional astronomy workshop during a Friday and Saturday in October 1993, and will attend a follow-up meeting in the spring. Astronomers and teachers will receive materials and activities for classroom use, learn strategies for teaching students of different ages about astronomy, and work together to plan activities and projects. Stipends, travel expenses, and materials will be provided to ASTRO participants.

Amateur and professional astronomers with an interest in education and some experience working with children or teens and/or presenting astronomy to the public are encouraged to apply for Project ASTRO. To receive and application and more information, write or call:

Project ASTRO, Astronomer Applications  
Astronomical Society of the Pacific  
390 Ashton Avenue  
San Francisco, CA 94112

You may also contact Jessica Richter at (415) 337-1100. Applications will be mailed in June.

**JOIN US!**  
**Saturday, June 19, 1993**

**FPOA WORK PARTY  
and BARBECUE**

**RSVP: (408) 623-2465**

**Fun! Food! Painting! Cleaning!  
Weeding! Camaraderie!**

Saturday June 19th has been designated as FPOA Work Party Day! We need volunteers to help with general Observatory maintenance: painting, cleaning, etc. To make it worth your while, the FPOA will be hosting a barbecue for the volunteers who come to help out. To volunteer, please call Rick Morales at (408) 623-2465 and leave a message. Work party starts at 11:00AM, barbecue starts when the work is done (around 6PM).

### *In This Issue...*

<i>Astrophotography on the 30-inch</i>	<i>p. 2</i>
<i>New Parking Regulations</i>	<i>p. 2</i>
<i>August 14th Annual Picnic</i>	<i>p. 3</i>

# Astrophotography and the 30-inch

by Dave Barosso

Over the past several viewing seasons there have been a number of complaints concerning the useability of the 30-inch as an astrophotographic instrument. The issues tend to revolve around the difficulty in mechanically adapting one's camera to the scope. This article will discuss the issues surrounding using a large scope for astrophotography, so that future potential users will be better prepared to face the challenge of using such a large instrument for astrophotographic purposes.

**First observation:** the 30-inch is a large telescope! It's operation and tolerances are much different from those of a 6-inch or 8-inch scope. The 30-inch was originally designed to be an excellent visual scope with photographic capabilities; it was not designed to be a research-grade instrument with the tolerances necessary for fine photographic work. Therefore, the mounting was designed to be more than adequate for visual work, the clock drive was built with tolerances adequate for visual work, and the focusers were installed at the optimum distances for visual work.

To enhance the photographic capabilities of the instrument, we have recently rebuilt the clock drive, and added a tangent arm for increased tracking precision. Additionally, all the focusers have been reinstalled at distances to make astrophotography easier. All this, however, does not necessarily make it any easier to adapt your camera to the scope. Kevin Medlock had made a custom adapter for use with the 30-inch. It was kept locked in the instrument cabinet. It is now missing. (If you have inadvertently borrowed it, please return it - no questions asked!).

**Second observation:** marginal or bad seeing affects large scopes much more so than small scopes. The 30-inch needs extremely good seeing to perform well, especially with astrophotography. You may have to wait weeks, even months, to get that one good night to take those "arc-second" galaxies!

**Third observation:** those astrophotographers who have taken outstanding astrophotos with the 30-inch have several things in common: (1) all took the time to become familiar

with the use and operation of the scope; (2) all made the necessary adapters their particular cameras required; and (3) all had the necessary patience required of this demanding hobby.

**Final observation:** You, too, can take outstanding photos through the 30-inch. The first step is to prepare yourself. Become intimately familiar with the operation of the scope. Know how to find the objects you wish to photograph. Build (or have someone build) an adapter for your camera. Practice with your setup: take test photos of bright stars to develop your guiding skills. Once you have these mechanics down, then all you need is that rare night of good seeing, and lots of patience!

\* \* \* \* \*

## Parking Woes...

On most evenings and weekend star parties, parking one's vehicle behind the Ranger's workshop is not a problem. This is a different story for special events, such as the Annual Picnic, when parking does become a problem. The problems range from personal safety to blocking fire roads. Since this coming August's Annual Picnic has the potential for drawing 200 visitors, the FPOA is working with the State to enforce some fairly strict parking rules for that event. The rules, as summarized are:

- Absolutely no overnight parking at the Observatory itself. One may drive a vehicle up the Observatory to drop off a scope, but then you must remove your vehicle immediately. This is primarily a fire hazard rule, and is actually in force all the time.
- Vehicular parking behind the Ranger's workshop (near the restrooms) is prohibited without written authorization from the park ranger. Arrangements will be made to provide both AC and DC power to those needing it for their scopes.
- The area next to the Ranger's house will be designated as "handicapped" parking only.

Bottom line: you will not be allowed to leave your vehicle behind the Ranger's house overnight this year, without special dispensation from the State.

The FPOA, in conjunction with the Astronomical Society of Northern California, are pleased to co-sponsor the

## 9th Annual FPOA General Meeting & Star-B-Q!

Door Prizes!  
Awards!  
Food!  
Games!

To be held on Saturday, August 14, 1993  
at Fremont Peak State Park

Star Party!  
Perseids!  
Galaxies  
Galore!!

This years Annual FPOA Picnic and Star-B-Q will be held at the Peak on August 14th. It will be cosponsored with the AANC. The Board is presently working on the activities for the day (we are looking to continue our Super-Soaker battle that we started last year). We plan on continuing with the issuance of the Spurious Awards for Dubious Achievement (please contact Frank Dibbell at (408) 974-7319 with your nominations), and we're working on getting a professional speaker for a twilight talk at the Observatory. And oh yes there will be door prizes. Members get one free ticket (\$1.00 for each

additional ticket); guests may purchase tickets for \$1.00 each. There are no limits this year to the number of door prize tickets that one may purchase.

As in past years, we will have a no-host barbecue, with the FPOA/AANC supplying the basic hamburger, buns, soft drinks and condiments, and the rest being a potluck affair. A special announcement and invitation will be sent out in July.

We hope to see you there!

## Election Time...

Yes, it is that time of the year again! Time to start thinking about FPOA elections. This year, the terms of John Stewart, Denni Medlock, and Dave Barosso expire. If you are interested in becoming a board member, please plan on attending the June 19th Board Meeting to get your name on the ballot. Share your political and organizational talents with us! Basic qualifications: you must be an FPOA member in good standing for at least one year by the election date (August 14). Board Members serve three year terms of office.

And speaking of the Board Meeting....

If you have any issues that you feel strongly about (such as the parking regulations for major star parties), come to a board meeting to express your opinions. We might not be able to change any state-mandated regulations, but we can certainly lend a sympathetic ear!

### FPOA Officers and Directors

<b>President</b>	Frank Dibbell	(408) 974-7319 ~
<b>Vice Pres.</b>	Bob Black	(415) 592-2166 ~
<b>Secretary</b>	Tom Hoffelder	(415) 726-7491
<b>Treasurer</b>	John Stewart	(510) 527-7036
<b>Directors:</b>		
	Robert Toebe	(707) 425-7960
	Bob Fingerhut	(510) 745-0110 ~
	Denni Medlock	(510) 278-6563
	Dave Barosso	(209) 887-2106
	Pat Donnelly	(408) 778-2741

The *Fremont Peak Observer* is published quarterly, and is the official publication of the Fremont Peak Observatory Association. The Association is a tax-exempt, not for profit organization dedicated to providing public education and interpretive services in Astronomy using the resources available at Fremont Peak State Park.

Basic membership in the Association is \$10.00 per year, plus a one-time \$10.00 initiation fee. Membership runs for the calendar year; there is no pro-rationing of dues. For more information, write to:

Fremont Peak Observatory  
PO Box 1110  
San Juan Bautista, CA 95045