



President's Message

By Doug Brown

At the December board meeting Pat Donnelly announced he would not seek re-election as president, having taken a position in South Carolina. Let's all thank Pat for the dedication and passion with which he has served as FPOA President for the past six years. Unfortunately, Pat's new transcontinental commute will probably reduce his frequent contributions to our solar and evening public programs. Looking on the bright side, this will open up a number of opportunities for other members to contribute!

Since I've just stepped into the role of President, this seems like a good time to introduce myself, if we haven't already met. As a newcomer to the bay area in the 80's, I learned of FPOA serendipitously when I drove up to the Peak one day in search of good observing sites for a telescope I'd recently built. While exploring the park, I stumbled upon the site of the partially-completed observatory, knew immediately it was a worthy cause, helped out with construction from time-to-time, and made donations. I've been a member since, excepting gaps during periods when academic or work commitments got in the way.

When, in early 2003, it became apparent that our contract negotiations with the State (converting us to a concessionaire) were in danger of breaking down, I became heavily involved, saw the process through to its successful completion, and have continued to be engaged and on the board since. FPOA is a great way to serve the community and educate the public, while doing something we all enjoy!

Entering our third decade, it is appropriate for FPOA to examine the sources of our success, which include our well-known dark sky site at the Peak, the observatory with its Challenger telescope and meeting room, and, most importantly, an involved and committed membership. Our outreach results are impressive for a 100% volunteer organization operating on a remote mountain top:

- Typical non-member public presentation attendance: About 1500 per year.
• Peak public attendance: Over 1000 per week (Mars opposition, meteor storms, Hale-Bopp).
• Off-site presentations to schools and community groups: A dozen per year.
• Special on-site presentations to church, scout, and school groups: A dozen per year.
• Area colleges regularly assigning students to homework or labs at FPOA: Two -- Hartnell and Monterey Peninsula Colleges.
• Internship program: Half-a-dozen college interns per year in collaboration with Hartnell College and with NASA funding.

Continued on next page...

FPOA Programs: 2007

Note: please check http://www.fpoa.net/schedule-2007.html for changes to events and schedules

Saturday Evening Programs

Table listing Saturday Evening Programs by month: March (24th), April (14th, 21st), May (12th, 19th, 26th), June (9th, 16th, 23rd), July (7th, 14th, 21st), August (4th, 11th, 18th), September (1st, 8th, 15th), October (6th, 13th, 20th), November (3rd).

The observatory is open to the public on these evenings

Solar Programs

Table listing Solar Programs by month: May (19th), June (16th), July (14th), August (11th), September (8th), October (13th).

Solar observing is offered at the Observatory during the afternoon on these dates.

Board Meetings

Table listing Board Meetings by month: March (17th), April (14th), May (19th), June (16th), July (14th), August (11th), September (8th), October (13th), November (10th). All meetings are at FPOA Observatory.

Special Programs

Table listing Special Programs: August (11th) Star-B-Q, September (8th) Rob Toebe Night.

President's Message *(cont. from previous page)*

At the same time we must question how we might better serve the public and our members. As is traditional, the board will engage in strategic planning during our first few meetings of the year, and we welcome your ideas on how to build on our strengths while addressing new areas of opportunity. To contribute to the dialog, feel free to call me, send the board an email or, better yet, come to the next meeting on February 17, or the following one on March 17, both at 2 PM in the observatory. You can find phone number and email listings elsewhere in this issue of the *Observer*.

If you are looking for new ways to get involved at any level, we have a variety:

- As mentioned, there are still openings to help with both solar and public programs (email schedule@fpoa.net).
- You may have noticed from our web site (www.fpoa.net) we are now a member of NASA/JPL's The Night Sky Network, which provides us access to high quality educational materials you can weave into your own presentation for delivery at the Peak or to local area schools, who often request a presentation by an FPOA astronomer. For more information, contact Dave Samuels, our Vice President.
- An interesting new opportunity is the Internship Program, which we piloted with Hartnell College last year (*The Fremont Peak Observer*, Summer 2006, p. 2). You could become a mentor in the program, helping an aspiring math, science or engineering student learn about project management, the night sky, researching and presenting an astronomy topic, or technical career opportunities.
- We can often use advice or help in non-astronomical areas as well, including law, engineering, project management, graphic design, accounting, web site design, writing, teaching, and just about anything else you might enjoy.

Thanks to your involvement, FPOA's future is looking up!

Entries from the Observing Log

Saturday, 9/9/06 Loren Dyneson, Pat Donnelly Ron Dammann: Tonight is a special program for the Mt Madonna School 5th Grade. There are 33 guests here for the special program: 1) Began the program with Jupiter. Al 4 Galilean moons were visible as well as the shadow of Ganymede on the cloud tops of Jupiter....

Tuesday, 9/19/06 Monterey Peninsula College Astronomy – [Professors] Andrews / Bossman:
[This is the] first night in a series of four observational field trips for Astronomy 10. Limited students to 24 per night & have advised all of rules & to pay park fee. Schedule is to begin @ 7:00 PM and conclude @ 11:00 PM. We have two additional scopes: Celestron 9" and Celestron 14". Handouts for students have questions and drawings for them to do to get credit. ... Accompanying members tonight are Kraig Amador & John O'Brien.... THANKS FPOA!

Thursday, 9/28/06 Marek Chichanski:
Left work and arrived at observatory ca. 8:30 PM. Opened up observatory and everything looks in good shape....My main project for the night was to see and identify individual stars in M31 & M33. I used data & images from a Local Group research group led by Dr. Phil Massey of Lowell Observatory. I managed to see a couple of stars in each group, and that was very satisfying....Using finder charts I found in the logbook, and with the help of the encoders & The Sky, I saw Einstein's cross. It looked fuzzy with occasional resolution of individual QSO images. I also looked for Pease 1 in M15, and I think I saw it by blinking with O III...

Entries from the Visitor's Register:

Sanjay Bhuria – Amazing! Great Work! Appreciate it.
Rebecca Hernandez – Great! First observatory I've been to!
Daniel Hernandez – Hey, what's up? Thanks for the coolest show ever!
Shipton Family – Wonderful!
Girl Scout Troop 3475 – I see a satellite! Thank you!
Aimen Al-Refai – M13 very cool. Jupiter rocks!

...a note from Bob Black, *the MEMBERSHIP GUY*

It's that time again! Yes, it's time to renew your FPOA membership if you are a year-to-year member. You will find a renewal application form and return envelope enclosed if your membership has expired.

A life member who had a Supplemental Observer Membership last year will also find a renewal form enclosed. Those of you who get a return envelope will also find that I have added a page with a few questions. Please use it to let me know something of your interest in FPOA.

Other members who wish a Supplemental Observer Membership can find the application forms on the FPOA web site, www.fpoa.net under Information for Astronomers. If you do not have an internet connection, then I will send you a copy of the form. Just call me or drop me a note, or get the form next time that you are at the Observatory when it's open.

Bob Black
585 Dartmouth Ave.
San Carlos, CA 94070
650 592-2166

Party Under the Stars

By Ed Huston

One of the more favorite Project ASTRO (astronomer in the public school science classroom) activities with students, teachers and parents alike is the Star Party. Star Parties are normally scheduled on a Friday evening, when students are permitted to stay up later, and held at the school grounds, which is a familiar and safe location for everyone. Here are some tips for having a successful Star Party, using the acrostic **SCOPE**:

[S]KY: Get the eyes of all participants looking skyward. When folks are not looking through telescopes or binoculars, have them scouring the sky for satellites (which are nearly always visible on dark, clear nights) and ‘shooting stars’ (meteors).

[C]ONSTELLATIONS: While you have all those eyes directed toward the sky, point out the brighter and more obvious constellations – like Orion, Leo, the dippers, Cassiopeia, Pegasus, Hercules, Scorpio, and Cygnus.

[O]RIENTATION: In addition to the astronomical objects, help your fellow partiers learn their way around the sky. Use the dippers and Cassiopeia to locate North. Point out some constellations along the ecliptic (whose names will be familiar) and explain what it is. Remind them that everything appears to be moving west because we are racing 800 mph to the east.

[P]ARTY: Make it a party! Put some enthusiasm into the evening. Be excited about the discoveries participants (especially students) make with the telescopes, binoculars, and naked eye – like when a student is the first to spot a satellite, or when the teacher shouts “wow” upon her first view of Saturn’s rings.

[E]QUIPMENT: Use the party as an opportunity to help families appreciate the telescopes or binoculars that they brought, but may not have the skills or sky knowledge to enjoy most fully. Assist in aligning finders, choosing eyepieces, focusing, and locating easy-to-find objects (planets, star clusters and, yes, even just bright stars) that will delight the first time observer. A tip: I don’t bring my own scopes just so I can spend time with others at their scopes.

Now let’s go party!



Fog Under Loma Prieta, taken from Fremont Peak by Kenneth Frank at last year’s Star-B-Q

CCD Imaging: Chapter 1 Introduction (?)

By Frank Dibbell

(Note—*this will be a continuing series documenting my sad progress in mastering the dark art of CCD photography. I would love to hear comments, anecdotes, and stories about your own experiences, and perhaps they may be incorporated into this series as well!*)

First of all, if you are an experienced astrophotographer (one who takes pictures of objects in the sky with a telescope and camera), you may wish to chuckle and move on, as you have no doubt experienced all this pain and humiliation and probably have no desire to relive a moment of it.

However, if you are contemplating becoming an astrophotographer, this article is for you. First, take a ball peen hammer and start banging it on your forehead, if anything to give you a sense of the kind of pain you are about to experience. This will also prepare you mentally for what you are about to undertake.

I plan on writing about my own experiences of attempting to master the art of CCD imaging, ostensibly with the goal of sharing my experience at the attempt, in the forlorn hope that (1) either I may be successful in deterring others with less fortitude than I from attempting this endeavor or (2) I have given those who wish to proceed a less painful path they may follow by avoiding my mistakes. My progress will be detailed in the pages of this, and future editions, of the FPOA Observer.

Now I should mention I am not a total neophyte when it comes to astrophotography. Back in the 70’s and early 80’s, I had a darkroom and processed my own astrophotos (Ektachrome slides and Tri-X pan film), with modest degrees of success. However, as I soon learned, wet film processing in the dark, with chemicals lights and paper, has absolutely nothing in common with computers and software. Woe is me.

So... what exactly is a CCD camera? CCD stands for charge coupled device, and it is essentially the chip inside a digital camera that collects and processes the light. These chips generate heat when they are used, which is not a problem in regular digital cameras as the exposure times are fractions of a second.

Astro photos, on the other hand, require exposures of minutes, not fractions of a second, in order to collect the faint light emitted from distant objects. The heat generated by the CCD chip over several minutes will destroy the image being collected. Therefore, the CCD “camera” contains an electric cooling device to eliminate the heat, thus allowing for the multi-minute exposure times needed for astro images.

Sounds simple enough? Ha! Stay tuned for Chapter 2: Selecting a CCD Camera.

Reminder: You can get your FPOA Newsletter via email and help us conserve paper resources and the cost of ever-rising postal expenses. Just drop an email to fpoa@sbcglobal.net if you want to receive the newsletter via email!!!

STAR-B-Q Revisited...

A few more parting shots of last summer's Star-B-Q. Pictures by Kenneth Frank.



Unknown Mom, Ranger CL Price, and Steve Loos setting up for the raffle drawing.



Steve Loos explaining to the crowd how the raffle will work...



(Top) Denni and Frank prepare to say a few words reflecting on 20 years of FPOA history; Doug is speaking while Pat looks on. (Right) How many awards can Pat hold?

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The **Fremont Peak Observer** is published four times a year (Winter, Spring, Summer, and Fall). Articles from members are encouraged, and should be emailed to fpoa@sbcglobal.net. Articles should be either in plain text or MS Word format. Deadlines are Feb 1, May 1, Aug 1 and Nov 1 respectively. The Observatory's phone number is 831-623-2465.

FPOA on the internet

Website: www.fpoa.net
Reservations/Events: members.fpoa.net/ical.html
Members Only Page: members.fpoa.net
Members email/list signup:
fpoa.net/mailman/listinfo/fpoa-members

For Observatory scheduling and access, email schedule@fpoa.net

