- Bringing Astronomy to the Public -

Vol 36 No. 3/4 Fall/Winter 2019

President's Message

By Patrick Donnelly

Welcome to 2020, the year of the optometrist. I am looking forward to 2020. There are several interesting astronomy events that take place this year. First, Venus will be riding high in the west in the early evening until June. The Moon will pass by her several times for a grand sight in the western twilight. The previous event on December 28 was quite spectacular. The Moon was just under Venus by about a degree. I look forward to each of the moon's passes over the next few months. The two (2) best meteor showers, the Perseids and the Geminids, will be able to put on excellent shows with the Moon out of the way for the most part. The Moon will occult Mars on February 18, and Comet PanSTARRS will come close to being a naked eye object in May. Later on in the summer Jupiter, Saturn, and Mars will be bunched together in Capricorn. In fact, Jupiter and Saturn will be less than one tenth (1/10) of a degree apart on December 21. For a few days on either side of that date both planets will be in the field of view of a telescope at relatively low power. This is the closest approach of the gas giants to each other since July 16. 1623.

This year, 2020, also marks the 34th anniversary of the first public programs provided by the FPOA. It is difficult to believe that the FPOA has been showing the heavens to the public for 34 years. Although many things have changed in 34 years, the really important things have not. Every visitor to the observatory wants to see Saturn, a galaxy, and the Orion Nebula, in that order. Most visitors are astonished by the different types of objects in the sky with big "OH WOW" in response to their first view of a bright globular cluster. The list of people to thank that have made the FPOA a success for such a long time is much too long to provide here. Let me just say that dozens of individuals have contributed to our success. Hopefully, there is another 34 years of FPOA's future.

2020 FPOA Program Dates

Saturday Evening Programs
Mar canceled Apr 11, 18, 25
May 16, 23, 30 Jun 13, 20, 27

Jul 11, 18, 25 Aug 15, 22 Sept 12, 19 Oct 10, 17

Solar Programs

Apr 25 May 30 Jun 27 Jul 25 Aug 22 Sept 19 Oct 17

Board Meetings

Jan 25 Feb 22 Mar 21 Apr 18

May 23 Jun 20 Jul 18 Aug 15

Sept 12 Oct 10 Nov 14

Special Events

Annual Meeting / BBQ Aug 8

Please check http://www.fpoa.net/schedule.html for changes or updates to this schedule.

2019 Renovation

By Rob Hawley and Eric Egland

In 2018 the FPOA board decided that after 30 years of use, the building needed some TLC. We suspected siding leaks, and wood shake buildings in a fire zone aren't permitted under the current building code.

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In 2019 the board asked VP Eric Egland to start looking at alternatives. We evaluated and tested several approaches including Hardie board and metal panels. By June we settled on EDCO metal siding, and received 4 bids. Based on price and reputation, we selected MPS Construction to do the work.

The work required some member prep work before our contractor could start. We removed the south shutter, arbor rafters, and deck boards and joists that interfered with the installation. Before removing the south shutter we inspected the axle assembly and immediately understood why it's performed so poorly. The three axle mount points were twisting off the side of the building sending the pulleys and spring set screws digging into the underside of the bench/axle-cover. We decided that a full-width aluminum box beam would act as a header to secure the assembly and better resist axle bracket twisting.

The board voted on Sept 7 to approve the contract with MPS. MPS started siding demolition on October 2, 2019. By October 14 we had the building covered with a modern Tyvek vapor barrier that gave more complete protection than the original tar paper. For many years we endured the decay of both door thresholds on the east side of the building. We suspected holes in the floor, but maintenance was deferred. Some of the decay on the west side was repaired during the west deck project, but the door frame hadn't been replaced and the latch mortise was loose.

With the siding off and the new siding not yet installed, we removed all the rotten subfloor, rotten door frames, and rotten outer joists and siding under the door thresholds. After structural repairs, we flashed the doors, windows, south shutter area, and under the membrane on the north rolling roof corners with aluminum and/or adhesive butyl tape flashing. The flashing integrates into the new vapor barrier and provides much more protection than the original tar paper. We reinstalled new door jambs and added adapters to eliminate trip hazards.

In early November MPS completed the siding installation on the building just before the first winter storm.

Below, now that everything is beautiful, and repairs are hidden, we have summaries and photos of repairs on the doors and south shutter.

Photos of the siding project itself can be found here.

EAST CLASSROOM DOOR

We discovered some soft spots near the double doors during the previous season. The door frame had extensive rot and mice were chewing new doorways into the room. Here is a more extensive look at the work.

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Before picture of state of floor and building side repaired

CHALLENGER DOOR

Before the renovation began we had a soft spot in the floor by the doors. The frame was also significantly rotted. After demo, we found opportunities to add structural support, treat some termites, and re-sheet the subfloor.



Double door "soft spot" and termite damage



New subfloor sheet

SOUTH SHUTTER

The south shutter garage door has been difficult to lift and lower for the last 18 years. Various garage door technicians inspected and adjusted the shutter installation over that time with only moderate and short-lasting effect.

We removed the shutter for builder access, and to re-design the mounting structure. We mounted the axle brackets on a continuous 20' aluminum box beam so they wouldn't independently twist, and flipped the end brackets so the pulleys, and set screws were not in contact with the axle cover. The shutter works great now.

Here are some fun shots



Bent axle before removal



Center axle bracket twisting away from the wood



The redesigned axle assembly mounted on a 20' aluminum beam

Our building is ready for the start of our Spring programs on March 21st. Some additional work will be need to be completed once it gets warmer and drier, but none of these projects will affect our schedule of programs.

President's Message

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Our Annual Members Meeting of Star-B-Que is scheduled for August 8 this year. It should be noted that August 8 is not a public program night. This was done to help reduce the confusion during the observing portion of the evening and help reduce parking problems. As of now no speaker for the event has been identified. We hope to see as many members as possible at the event.

If you attend a public program or the Star-B-Que, you will notice that the observatory has gotten a rather complete make over. Last fall the old wooden siding on the observatory was removed and new metal siding was installed. In addition, a vapor seal was added to the sides of the observatory under the new siding. As part of the siding replacement program, the south shutter door was removed, cleaned, repainted and modified so that anyone could open and close the shutter with only a minor effort. In the past it took two (2) WWE wrestlers to close the shutter. As of the writing of this article the shutter has been reinstalled with the installation of the mechanism cover still to done. The doors of the observatory to the outside have also been reworked at the entrances to the observatory have been replaced. Because of the new siding the doors all have new thresh holds. I want to thank Eric Egland for leading the effort to get all of these modification and upgrades accomplished and for all of his time that he has donated to the FPOA to oversee the project and do the majority of the work.

2020 Membership Renewal

Memberships in FPOA are now for 12 months instead ending on Dec 31. For annual members Observer status is now a type of membership instead of an add-on. You can use the forms on the membership page http://www.fpoa.net/membership.html to pay with PayPal (they will accept credit cards). For those preferring paper you can just send a check (that has your current correct address) to: FPOA Membership, c/o Rob Hawley, 1233 Hillcrest Dr., San Jose CA 95120

FPOA on the Internet

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Website: www.fpoa.net

Facebook: www.facebook.com/fpoa.observatory/

EMAIL DELIVERY OF THE OBSERVER

Dear FPOA Members,

The Observer is now only delivered electronically. New editions are posted on our website. If you would like to be notified when a new edition is available please be sure we have your current email address. Since most annual memberships are now renewed via PayPal we will use that address by default. If you would like us to notify you at a different address or your email changes then please send your new email address to membership at fpoa.net

Without his help this project would not have been such a big success. I also want to thank Rob Hawley and the other FPOA members, who have donated their time and effort to the project. If you would like to see how the observatory looks now and all of the rework done, please go to the FPOA Members Page on our website. Various pictures and text material on the various activities are provided at the bottom of the page.

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The Fremont Peak Observer is published four times a year (Winter, Spring, Summer, Fall). Articles from members are encouraged and should be emailed to <schedule at fpoa.net > Articles should be in plain text or MS Word format. Deadlines are Feb. 1, May 1, Aug. 1 and Nov 1, respectively.