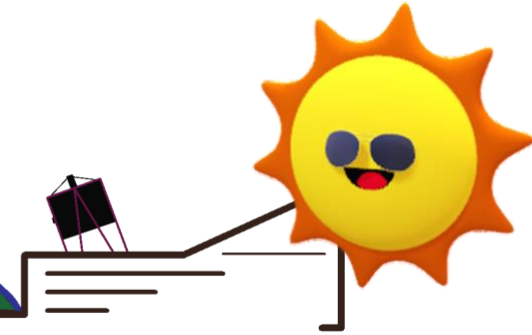


The Fremont Peak Observer

— Bringing Astronomy to the Public —



Vol. 42, No. 2

Summer 2025

President's Message



Pat Donnelly

The year 2025 has, thus far, been something of a dud relative to public programs and the visitors. There have been seven (7) scheduled evening programs and three (3) scheduled solar programs. We have been able to conduct evening viewing sessions on only two (2) of the nights. The same is true for the solar programs. We have been able to conduct only two (2) solar programs. To illustrate how bad the weather has been, consider this. On two (2) occasions, when I was present, there were no visitors for evening program, and visitors came to the lecture. I do not remember even being at the peak when no visitors came to the lecture. On one occasion, the weather forced us to cancel all program activities, including the lecture. In spite of all the bad luck so far, I remain optimistic for the remainder of the observing season, including the program tonight (5/31/2025).

During one of the storms last winter, our sundial was ripped right off of its mounting. We found the sundial on the ground. As a result, a repair and restoration



2025 Program Dates

Saturday Evening Programs (lecture start)

March	22, 29 (8p)	July	19, 26
April	5, 19, 26	August	16, 23, 30
May	3, 24, 31 (8:30p)	Sept.	13, 20, 27 (8p)
June	21, 28	October	18, 25

Solar Programs (2-5pm)

March	29	July	19
April	19	August	30
May	24	September	13
June	28	October	25

Board Meetings (Zoom, 1pm)

January	25	July	26
February	22	August	23
March	22	September	27
April	26	October	none
May	17	November	1
June	14		

Star-B-Que October 11

Please check our web [Schedule](#) and [status](#) for updates before heading up.

has been undertaken by Eric Egland to repaint the background, remove and replace the letters and numerals, and remount the sundial. The new mount will be weather resistant with the sundial securely connected to the observatory. It is hoped that the sundial can be remounted later today (5/31/2025). This is the first rework done to the sundial since Charlie Carlson installed it back around 1988.

Rob Hawley and I attended a teleconference on May 29 regarding the name of the state park, where our observatory is located. If the change is approved, the name of the park will become "Tooyohtak (toy-oh-tac)" State Park. The word tooyohtak was the name of the peak prior to the arrival of the Spaniards. It means 'bee place' or 'at the bees' in the Mutsun language. The name of the peak itself will remain Fremont Peak. This is because it is a federal geographic designation. The park name will only be changed if approved by the California Parks Commission. The name change will have minimal impact on FPOA, and a change in the name of FPOA will not be required. I do not have any timetable for the name change but it will not be any time in the near future.

In astronomy news T Corona Borealis (T CrB), the recurrent nova, has not flared as yet. Based upon information I could gather, the outburst should occur sometime this summer. If the outburst occurs anytime from now until the end of the public programs, we will be in a good position to show it to the public. If you wish to monitor the brightness of T CrB, up to minute information is available on the FPOA website on the Members Page under the Spaceweather.com link. The information can be found in the upper right-hand corner of the space weather homepage. There is also a link to the AAVSO observation list for T CrB. With it you can see what magnitudes have been recently determined for the star. I have been checking the information almost daily.

Just a reminder, mark your calendar for the Star-B-Que. The Star-B-Que is scheduled for Saturday, October 11. Because we have invited Pimol's astronomy class to the event, we shall need all the help

we can get. If you can volunteer for the event, please let any board member know.

See you soon at the peak in "Tooyohtak State Park."

PD

Observations



Eric Eglund, Rob Hawley



A SpaceX Dragon capsule re-entered over California near the end of our May 24th evening program leaving a trail of fire across the sky from the NW to the SE.

When all is calm at sea in the surf zone, and little glassy ripples disturb the millpond, and then a perch bites your ankle, it was like that. Some heard a sonic boom, but I missed it. Just a slow plasma head followed by a long burning trail all the way across the sky. The train remained for some time.

Later, news came of the splashdown offshore San Diego. An elegant sight, I hope we see one again.



ETE

Article Reviews – “David Deamer: Five Decades of Research on the Question of How Life Can Begin”

Rob Hawley

One of the enduring questions in evolutionary biology is the origin of life. This single question has repeatedly challenged the entire theory. At the SETI Drake Awards held on May 20, 2025, two scientists, David Deamer and John Baross, presented distinct yet complementary approaches to addressing this question.

Astronomers have discovered that amino acids are common in space and have found the building blocks of RNA in asteroids. However, to form a cell wall, you also need lipids (fats) to protect the machinery of the amino acids. Finding these and discovering how they can organize to protect a cell is a crucial part of the story I’m about to tell.

In 1969, a carbonaceous meteorite (containing carbon) fell near Murchison, Victoria, Australia. Lipids and amino acids are [common](#) in this type of meteorite. But how do you get from the individual parts to the organization required by life?

It has long been known that primitive life can be found in hot springs. Deamer theorized that placing the lipids and amino acids from a meteorite into a volcanic pool will form structures that self-organize, allowing the lipids to wrap around the amino acids and facilitate the organization of RNA. So, the question arose: if you provided the pieces of life, could they organize on their own?

The key experiment was conducted near Mount Mutnovski in Kamchatka, Russia. Deamer selected a volcanic vent that otherwise had no organic matter. He then

poured in a mixture similar to what was found in the Murchison meteorite. The rest of the story is captured [here](#).

“Within a few minutes, a white froth appeared around the edge of the puddle. The froth was composed of membranous vesicles of myristic acid, and that the vesicles had captured samples of the other compounds in the mixture. As the pool evaporated over time, the vesicles and their contents would fuse into a thin film of organics on the mineral surfaces. [He] knew from [his] previous work that the polymers would be encapsulated within the vesicles, the first step toward cellular life.”

- Dr. David Deamer

No exotic creatures emerged from the pool, but Deamer had uncovered one of the most challenging steps in this process. With time and repeated cycles of drying and dissolving, the amino acids would have enough time to begin creating RNA. Once RNA is formed, DNA is only a short step away.

However, the question remains: where did this occur? That’s where the second scientist comes into play. At the ocean’s depths, along the boundaries of the geological plates, there are locations where hot gases rise from the crust. These are known as black smokers. These regions are already teeming with life and possess similar characteristics to the volcanic pools.

This work has provided a more credible explanation than the sludge at the bottom of a flask in the Urey-Miller experiment.

RJH

Damer B. [David Deamer: Five Decades of Research on the Question of How Life Can Begin](#). Life (Basel). 2019 May 2;9(2):36. doi: 10.3390/life9020036. PMID: 31052584; PMCID: PMC6617542.



Renaming the Peak

Rob Hawley

There is a proposal before the Department of Park and Recreation (DPR) to rename “Fremont Peak State Park” to a name acceptable to a local Native American community. At the present time DPR is not proposing to force us to change our name. They are also unable to consider renaming the peak itself (names of geographic features are controlled by the Federal Government and such a change would be unlikely before Jan 20, 2029).

Below is the body of our board’s official position letter to the state:

“Based on the May 29, 2025 meeting, the board understands that the state will not require FPOA to change its name. Additionally, it appears that this proposal will not alter the name of the nearby mountain. Consequently, FPOA has no opinion regarding the park name change.

FPOA offers special programs to organizations. We regularly host various church, scout and school groups. If any of the groups sponsoring this measure are interested, they can attend one of our public programs or request a special program for them.”

RJH



Expanding Our Reach: FPOA Launches 2025 Community and Campus Outreach Campaign

Rick Mazzarella

In 2025, the Fremont Peak Observatory Association (FPOA) initiated a dynamic outreach campaign aimed at strengthening ties with local schools and colleges while raising community awareness about our public viewing programs and educational mission.

This effort began in the spring with the design and distribution of a visually engaging poster promoting FPOA’s 2025 public event schedule. These posters were delivered and posted at local college campuses, including UC Santa Cruz, Gavilan College, Cabrillo College, and Hartnell College. Establishing contact with campus display coordinators required hands-on work—identifying key personnel, making campus visits, and gaining approvals—but this groundwork will streamline poster updates in future years and build lasting relationships with our local academic institutions.

Building on this momentum, we’ve launched a more ambitious initiative: direct outreach to Science, Technology, Engineering, and Mathematics (STEM) teachers and staff across area school districts. Our goal is to connect educators with FPOA’s resources and opportunities. As part of this campaign, we are:

- Offering complimentary observer-class memberships to STEM faculty and staff
- Inviting them to attend our annual **Star-B-Que on October 11, 2025**
- Encouraging them to post our 2025 Public Program flyer on campus bulletin boards

More than 100 educators will receive this outreach, and we're optimistic it will generate meaningful engagement, new memberships, and possibly even new volunteers with a passion for public science education.

We encourage all FPOA members,
—especially those who assist with public viewing nights,
—to ask visitors how they learned about our programs.

If you start hearing mentions of posters, teacher referrals, or campus announcements, please let us know. These anecdotal stories are a powerful indicator of our campaign's effectiveness.

This year's efforts lay a solid foundation for sustained outreach in 2026 and beyond. With your support, we hope to see increased public participation and greater volunteer involvement—especially from STEM professionals who already excel at science communication.

Stay tuned—and let's see what kind of impact we can make together by year's end.

RM

FPOA Area is not for Rent

Rob Hawley

In February, two separate charities approached the FPOA to auction access to the FPOA area for their benefit.

To begin with, the FPOA area is not "our" area. We lease it from the state to perform specific services, including our public programs and preserving observer access. There is no provision in our contract that permits a third party to sublease it from us. We believe that the first request originated from a fundamental misunderstanding about the nature of our relation-

ship with the state. We informed the charity.

The second instance was more concerning. An Observer member offered to host an individual who won an auction for access. The offer was made several years ago and the charity was just now following up. The member involved had not renewed his membership. Therefore, the incident did not involve a current member. While this did not explicitly violate the Observer's membership agreement in effect at the time, it again violated our agreement with the state and, if the Challenger were involved, our agreement with the Medlock Trust. We informed the charity.

I am writing to inform you that we have amended our reservation policy to explicitly prevent the latter from occurring in the future. We would consider this as grounds to terminate a membership.

RJH

In Memoriam



Rob Hawley

Those of you that have engaged in chasing the moon's shadow will recognize the name Fred Espenak. To the community of Eclipse Chasers that I know, he was known as "Mr. Eclipse."

I am sad to pass along that he is no longer with us.

Fred began his chasing during the same eclipse as I did, March 7, 1970. He viewed it in North Carolina, while I was in Virginia Beach. For many years, he was the source of knowledge on eclipses from his position at Goddard Space Flight Center. His parameters of the movement of the Earth and Sun are the very basis for every eclipse prediction, including the ones I include in my own software.

Fred maintained the NASA website and later his own mreclipse.com site.

He retired to Arizona about 10 years ago but remained active in the eclipse community (complaining that my own program did not support Nikon cameras). According to [Sky and Telescope](#), he witnessed 52 eclipses, of which 31 were total, putting him easily into the ranks of the elite.

In addition to publishing information on when and where eclipses would occur, his site is the go-to source for eclipse safety.

The Sky and Telescope article provides a more detailed recounting of his well-lived life. He will be missed.

RJH



NASA Goddard Space Flight Center from Greenbelt, MD, USA - Dr. Fred Espenak, CC BY 2.0, <https://commons.wikimedia.org/w/index.php?curid=105878611>

Facilities



Eric Egland

The sundial rises once again following the wind event that blew it off the building last winter.



New letters, a new mounting frame, new paint, and new caulk put it back in service for years to come.

We may add the stair lights to the driveway switch.

Support



Thanks to those who renewed. FPOA receives most of its income from our memberships. Most annual members are now Observers. We still need your support. Contributions cover publications, phone, insurance, rent, etc.

Please consider volunteering, it's great fun and a service to our community. Please see the [back page](#) for details.

Membership Renewal



To join or renew, please select from the list of options on our [Membership page](#) and pay via PayPal or mail a check to:

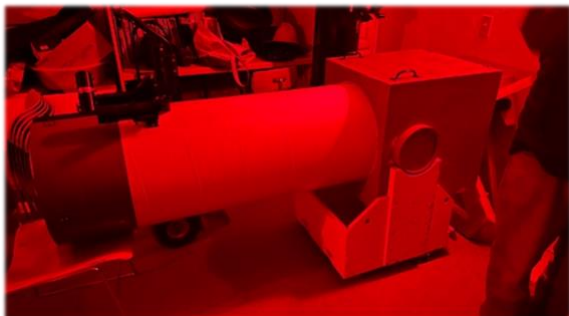
FPOA Membership
c/o Rob Hawley
1233 Hillcrest Dr.
San Jose, CA 95120



Gallery



CW from upper right: Sunset from SJC Road, misty moonrise, Winecup Clarkias blooming by the gate, the new sun dial, Thankyou from the German Intl. School kids, proper storage of Big Orange after excessive dew, a red velvet ant, Eric catches a high-altitude balloon drifting east over Hollister, an observer sets up before an evening program.





Owls grace the pines May 31st evening program

Observing Reservations

Please send the following information
48 hours in advance to:

schedule at fpoa.net

- Member name
- Reservation date
- Estimated arrival time
- Duration of stay
- Number in party
- Vehicle description and license plate
- Specific observing site request (pad)

**Reminder – 48-hour notice for Observer
Access is non-negotiable**

Please, No ‘last minute’ requests

We lease access to the FPOA area from the State. Our agreements with the State require we give 48 hours’ notice for all visitors. Observer members agree to the 48-hour notice per the liability contract.

Public Program Volunteers

- Complete the updated [2023 liability waiver](#) and return to *membership at fpoa.net*.
- Also, please email name, vehicle, and the program date to *schedule at fpoa.net*.

Fremont Peak Observatory Association

Box 1376, San Juan Bautista, CA 95045

Inquiries *info at fpoa.net*

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 Membership *membership at fpoa.net*
 Editor *editor at fpoa.net*
 Treasurer *treasurer at fpoa.net*

Website: fpoa.net
 Facebook: [fpoa.observatory](https://www.facebook.com/fpoa.observatory)
 X (Twitter): [fpoa_info](https://twitter.com/fpoa_info)

Observatory: (831) 623-2465

Officers and Directors 2025

President	Pat Donnelly
Vice President, Programs	Eric Egland
Treasurer, IT, Membership	Rob Hawley
Instruments, Schedule	Ron Dammann
Secretary	Tom Kellogg
Editor, Social Media	Eric Egland
Special Programs Coord.	Jeff Shapiro
Facilities	Eric Egland
	Chris Angelos
	Rick Mazzarella
Directors Emeritus	Kevin Medlock
	Denni Medlock
	Loren Dynnesson

Dates and Delivery

Members, The *Observer* is now sent by email and posted on our website at [FPOA Observer online](#). Please send email updates to *membership at fpoa.net*.

The *Fremont Peak Observer* publishes four times a year following Winter, Spring, Summer and Fall. We welcome articles and photos from our members. Please email those to *editor at fpoa.net* by Feb 25th, May 25th, August 25th, and November 25th in plain text or Word format.

