

THE

Asteroid



Newsletter for the Astronomical Society of Nevada

2nd Quarter 2017

Presidents Perspective,

It was May 27, 2017, one day after the ASN's 24" mirror arrived at my house after a seven-week stay at Ostahowski Optics, Inc. in Anza, California. There the mirror was tested, refigured, and recoated, then shipped overnight to arrive just in time for our monthly member's star party in Palomino Valley. How would it perform in our telescope? A small crowd was on hand to find out.

Gary Wick, Jim Scivally, and I arrived early to unpack and install the mirror. It looked like a jewel: shiny, new, and perfect. The refiguring process had removed enough glass to reduce the mirror's focal length by about one-half inch. I was concerned there might not be enough "play" in the focuser to accommodate that change. So I felt a bit of relief when the scope was successfully collimated. And more when it achieved focus with our standard set of eyepieces – although one just barely made it. I made a mental note to address that later and began to pay attention to the image itself.

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Before the June meeting, ASN members check out a Sun Funnel made by Brad Carlson in advance of the solar eclipse.

Check the calendar on the ASN website for other public observing opportunities and meeting dates.

The Astronomical Society of Nevada does public star gazing, presentations on Astronomy and Science and works with local schools to educate children on the wonders of the sky. In addition, we help each other learn more about the different aspects of Astronomy and participate as a group in celestial events. There is something for everyone.

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On line resources
Web Site www.astronomynv.org
Facebook
<https://www.facebook.com/groups/AstronomicalSocietyNV/>

"To encourage, foster, conduct and support programs on astronomy and related sciences for the education and enlightenment of the general public and the membership."

Supporting programs in Astronomy and related sciences in Northern Nevada since 1934

“To encourage, foster, conduct and support programs on astronomy and related sciences for the education and enlightenment of the general public and the membership.”

Total Solar Eclipse

Dennis and I found two really good articles on what it is like to view a Total Solar Eclipse. Unfortunately we do not have space to reprint them in the newsletter, so I have included links to both of them. -- Jay

What is it like to see a Total Solar Eclipse by Fred Espenak
http://earthsky.org/astronomy-essentials/whats-it-like-to-see-a-total-solar-eclipse?utm_source=EarthSky+News&utm_campaign=f0a423f3e3-EarthSky_News&utm_medium=email&utm_term=0_c643945d79-f0a423f3e3-394075717&mc_cid=f0a423f3e3&mc_eid=797d133684

The Experience of Totality by Fred Espenak, Mark Littmann, Ken Willcox from 2008

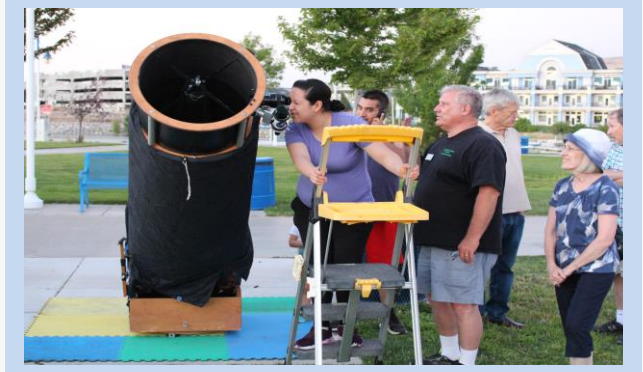
<http://www.mreclipse.com/Totality3/TotalityCh01.html>

Upcoming Star Parties and Events.

Monthly Events

ASN meetings, second Tuesday of each month.

Sparks Marina Star Party, third Friday of every month, open to the public. See the calendar on our website for up to date details.



ASN History, 1979 Eclipse

In February 1979, the ASN went to Biggs Junction in Oregon. According to the records, the trip had a variety of challenges with weather, coordinating without cell phones, and assisting at the site of a vehicle accident. Despite clouds and bad weather, most were able to see the whole of totality due to a lucky break in the clouds. Will we experience similar problems in 2017? Huge crowds are anticipated and who knows what will happen on the way to the Shadow of the Moon!!
Jay Lawson



Standing, left to right: Eric Harnew (guest); Herb Vallow (guest); Bill Cooke; Javier Accordagoicha; Ruth Frazier; Vern Frazier; Lois Neville; Bob Neville; Tom Brien; Paul Schmidt; Kathy Schmidt; David Schmidt; Paul Turner; Jim Schneider.
Kneeling, left to right: Tom Frazier; Frazier dog Mariner; Elaine Frazier; John Rugg (guest); Nancy Foster; Peter Allen (guest); Jesse Huntsman; Jo Foster; John Sinkev; Margaret Sinkev; Bill Hoffman.

Telescopes donated to the ASN.

The club has had a variety of telescopes donated to us. We have stored them for Robbins for a time, auctioned some and put some in the hands of people who will good use out of them.

We get scopes donated at random times, and we evaluate them and fix them up. If members are looking for a second scope or an upgrade, please contact Dennis or Jim or Jay and let them know what your are looking for.

ASN equipment and resources

All ASN members have access to viewing with the clubs 20 and 24 inch telescopes. The club and several members have solar telescopes to view the sun in h-Alpha light, allowing you to see solar flares and surface details. At our public and members only star parties, members share views through club equipment as well as their own. It's a great way to get a good view of the sky and check out types of equipment you might want.

Lassen Star party August 11 to 14.

The ASN will be attending the Lassen Star Party. Details can be found here:

<https://www.nps.gov/lavo/planyourvisit/dark-sky.htm>

Jim Fahey is making plans, has found that William Mehm presenting three shows during the Fest.

Contact Jim if you are thinking about going.

How to Join or Renew.

Joining or renewing your ASN membership is easy through the club website at www.astronomynv.org

Payment can be made by Paypal and sign up is quick and easy.

If you have any trouble, you can contact Robbin at her email address at robbin@screamingtigers.com

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President’s Perspective

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It was a warm night and the mirror had not reached ambient temperature. The scope had been pointed at Jupiter to align the finder – but as we know a good planet image requires good conditions. Jupiter looked about the same as what we were accustomed to before the mirror was reworked. Maybe the seeing wasn’t very good that night? Several members took a brief look and returned to their own scopes to wait for cool-down. I began aligning the computer while our guests waited for a look. Things began to improve when we went to Comet Johnson using our lowest power (100x). It was big and bright with a tail that extended well beyond the eyepiece field. In fact it looked just like the SkySafari image on the iPad in my hand. I always thought those comet images were idealized but there it was in the eyepiece.

Later we went to M51, using about 275x. It was high up in the darkest part of the sky. The mirror had cooled completely and the seeing had settled down for the night. I was startled upon seeing M51. I forgot who and where I was. The galaxy looked so big and bright. And I was right there with it. The spiral arms weren’t just bright and sharp, they were so distinct! To see that with my own eyes was thrilling – it felt like the first time I saw Yosemite Valley. Mike and Timba had a look too and were equally impressed. It was an unforgettable moment.

Jay Lawson told me once that what energizes amateur astronomers is getting new equipment that provides better views. I have to agree. Now I can’t wait to see all my favorites again through this telescope with its Ostahowski mirror. I would like to publicly thank Terry Ostahowski for his fine work - our telescope has reached a whole new level of optical quality. Overnighting it to meet our star party date wasn’t part of the bargain but Terry did it anyhow. Thank you Terry.

In June ASN members worked to optimize the telescope frame to accommodate its new mirror. The truss tubes were shortened a bit and new high-performance fans were installed to reduce the cooling time. Jim Scivally and Phil Oberlander made invaluable contributions to this effort.

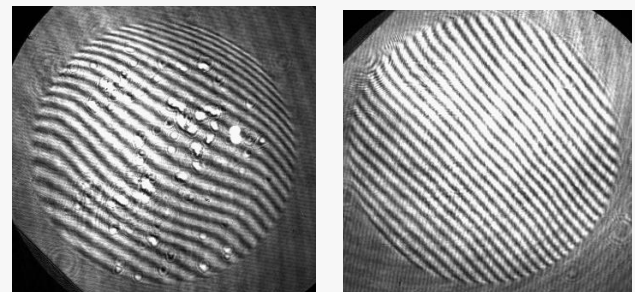
We have a very fine scope and it will be enjoyed for many years to come. Along with our 20” Obsession, this scope provides our members with access to amazing objects and detail that would not be practical or affordable for most of us as individuals. We are able to operate and maintain our scopes with relatively modest effort because we work together. Having the chance to use them is a privilege for our members and the public.

24 inch refiguring and update

The ASN’s 24.25 -inch f5 mirror was made to order for us by Intermountain Optics in 1990. The scope itself was designed and built by ASN members Adam Kremers and Garth Elliott in 1990/91. To decrease the weight, an entirely new scope with the same mirror and support system was built by Rich Wood, Tim Kendzioriski, and other ASN members in 2002. The second scope was designed like an Obsession. After a long period of use, it was restored and enhanced in 2015 by ASN members including Dennis Jamison and Phil Oberlander with Jim Scivally, Gary Wick, Jay Lawson and Jeff Wolff.

Last fall and winter the ASN decided it was time for our mirror to be tuned-up. Phil and Dennis delivered it to Terry Ostahowski in early April as described in the last issue of the Asteroid. Ostahowski’s Anza, CA lab is setup for making large high-quality mirrors and is known for supplying the mirrors used in Obsession telescopes. The ASN’s mirror was tested, corrected, polished and recoated to meet those standards. Now it is an Ostahowski mirror.

Before-and-after Ronchi images from the Foucault-Null Test are shown below. Polishing continued until the mirror produced acceptable results from interferometric analyses (test results are available). The work performed was so extensive that the mirror’s focal length decreased by about 0.5” due to glass removal. The new mirror saw first light on May 27, 2017.



Before

After



Members viewing through the 24 inch on May 27, 2017.

ASN Member address



fold

August 8th Meeting notice

The August 2017 meeting of the Astronomical Society of Nevada will be held on Tuesday the 8th at 7 PM.

The location is KNPB TV (the Community Room), at 1670 N. Virginia St., Reno.

Our formal meetings are held (usually in even-numbered months) at KNPB's offices on the UNR campus at 7pm. These include a presentation or discussion on astronomy, followed by a business meeting. We also hold informal meetings (usually in odd-numbered months) at a local pizzeria or a member's home at 6:30 pm.

Member star party !!

Upcoming Member star Party Dates:

Lassen Star Party !!!
Friday August 11
To
Monday August 14th

Check the online calendar for other events.

The Astronomical Society of Nevada (ASN) outreach program includes the North Valley area, using the conference rooms at the Spanish Springs Library. Programs are scheduled for the third Tuesday of the even numbered months just before sunset (specific times are announced on our website). Astronomical subjects are presented through Power Point and hands on demonstration.

Following the presentation, weather permitting, live telescope viewing is provided for all attending the library just outside the library. This usually includes our 20" mirror, 200 lb., 9-foot-tall Dobsonian telescope. We request the lights off around the library during telescope viewing.

In the odd-numbered months, the programs will be repeated for southern residents at the Galena Creek Visitors Center.

August 15, 2017 "Total Eclipse of the Sun Across the USA." Information to safety watch the eclipse on August 21, 2017. The Eclipse will start at the Washington - Oregon border to the Atlantic Ocean in Georgia.

October 17, 2017: "The Ice Planets, Uranus and Neptune." Information on the last two planets in our solar system. Observation of Uranus and Neptune plus other deep space objects.

December 19, 2017: "The Star of Bethlehem" Facts, Myths, and Miracles about the star of Bethlehem. Telescopes targets, moon, planets, deep space objects.