



THE STAR DIAGONAL

THE JOURNAL OF THE OGDEN ASTRONOMICAL SOCIETY

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<http://ogdenastronomy.com/>

Meeting Announcement

Our meeting for March will be on the 11th. It will begin at 7:30pm in the Ott Planetarium and WSU. Dr. Stacy Palen will be our guest speaker this month.

Ogden Astronomical Society Meeting 11 February 2010 Minutes

The January 2010 meeting minutes and private and public star parties were reviewed.

Announcements:

- Farmington Jr. High Thurs 18, Feb
- Wayne Sumner has an Orion 9x50 finder scope for sale \$45.00 to raise money for the observatory
 - Details: Right angle, erect image with mount & inside curve bracket
- Texas Star Party, Astronomical League-Southwest Region
 - Details:
 - May 9 – 16, 2010
 - Fort Davis, TX
 - Merchandise displays
 - Vendor Registration \$75.00

Contact Pam Smith for specific details and contact information: (435) 723-3691

- Best Cruises Alaskan Astronomy Adventure 15 day cruise with on board star gazing
 - Details:
 - Sept 4 – 18, 2010
 - Princess Cruise 5-Star Luxury
 - Stateroom Pricing per person (pp)
 - *
 - Mini-Suite
\$2949 pp

- Ocean view w/ Balcony
\$2749 pp
- Ocean view
\$2549 pp
- Interior Deluxe
\$2024 pp
- Interior
\$1899 pp

* Prices are pp. based on double occupancy.
Taxes/fees/transfers \$575 pp
Contact Pam Smith for specific details and contact information: (435) 723-3691

Pam Smith presided over the meeting and provided this month's meeting presentation.

In her presentation, Pam explained why she was interested in astronomy which included the discovery of Biblical "signs in the heavens." She presented several Biblical references that had implication of scientific astronomical truths, truths which were not realized until medieval times.

She then presented specific signs in the heavens regarding lunar eclipses, Biblically known as "blood-red moons", which are to occur on Biblical holy days in the near future.

A lunar tetrad, consisting of four consecutive lunar eclipses occurring on Biblical holy days, is to occur during 2014 & 2015 specifically occurring on the holy days of Passover and Feast of Tabernacles in both years. This is a very rare occurrence and has occurred only three times in the last 2000 years, each of which has been coincident with significant events in Jewish history. Pam then read several biblical references regarding future events that are predicted to happen coincident with blood-red moons, all of the references spoke of the great and terrible day of the Lord and the second coming of the messiah.

Pam then presented Biblical and ancient writings regarding the solar travel through the heavens over the course of a year and how there will be solar eclipses coincident with the 2014/2015 lunar tetrad, as described in the Bible and ancient writings.

The Ott Planetarium then presented the movie, EXPANDED VIEW.

Star Party Schedule

Proposed Public Parties

April 17	Antelope Island
May 8	Antelope Island
June 12	Antelope Island
August 14	Antelope Island
September 11	Antelope Island
October 2	Antelope Island

Our Private Star Parties are as follows.

Mar 12-14	Curlew
May 12-16	Dead Horse Point
June 3 – 6	Craters or Parowan Gap
July 6-11	Monte Cristo
Aug 3-8	Monte or Uintas
Sept 1-6	Campout TBA
Nov 5-7	Curlew

Green Lasers for Sale

Kay Hargis has Jasper green laser pointers for sale. Kay purchased them at a volume discount. They are \$31 each and come with 2 AAA batteries and a plastic case. You can reach Kay at n7kh@juno.com.

Collimator for Sale

Wayne Sumner wants to sell an Orion Lasermate Deluxe Collimator Model 05690 \$30.00

Please contact Wayne if you are interested.

St. George Star Party Report

Several of us had an enjoyable two nights of observing in St. George this year. We went to a new location that was just outside of Virgin UT. We were well shielded from the road and the few lights of Virgin. We were on the edge of a cliff that overlooked the river and a small dam. We had pretty good viewing conditions, except for the Dam lights. Yes, the dam actually had high pressure sodium lights shining on the water. This was then reflected to the cliffs so that we could see them. We had to hide behind our cars to get so that we couldn't see the light from the cliffs. Stephen Peterson, a member of the Utah Astronomy list serve has offered to look around during the summer and find us a better location for next year. We did get to do some good observing for a time before moisture in the air turned the sky milky and we went to bed. Mars was really good on Saturday night. I was able to easily pick out the polar cap and Syrtis Major.

Mars 2010

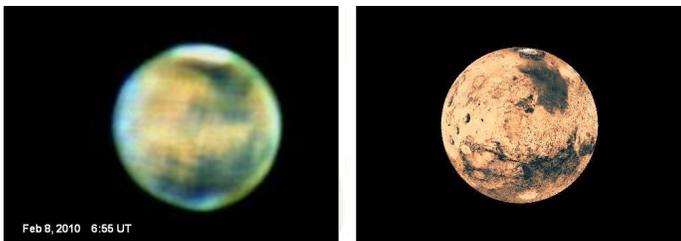
By Jim McCormick

Because the orbit of Mars has a relatively high eccentricity, the planet is only 128.4 million miles from the Sun at perihelion, but 206.6 million miles distant at aphelion. Earth's orbit is much less eccentric and lies inside the orbit of Mars. Approximately every 2.2 years, the Sun, Earth and Mars line up (Earth between the Sun and Mars) and Mars is said to be at "opposition." For viewing Mars, some oppositions are better than others. Oppositions are best when Mars is close to perihelion and Mars' angular diameter is about 25 arcseconds. When Mars is near its aphelion, its diameter is almost half as large at around 14 arcseconds.

On January 27, Mars made its closest approach to Earth, nine days prior to opposition on February 5. If the orbits of Mars and Earth were both perfect circles, closest approach would occur at opposition. Due to orbital eccentricities, sometimes closest approach occurs before opposition and at other times after opposition. As an example, the closest approach in 2001 occurred four days after the June 17 opposition.

There did not seem to be as much excitement about this year's event partly due to poor weather nationwide and partly because Mars was a rather tiny 14.09" in diameter at closest approach. There are usually a lot of images posted on the web when Mars is near opposition; this year there were few. In the weeks leading up to January 27, Mars was low in the east in early evening hours and I was not inclined to stay up until one or two in morning cold to observe or image the planet. I did not get excited about doing so until the last week in January, but then the sky was cloudy or the seeing was terrible. I did get an image on the 28th, but the seeing was bad and Mars did not present an interest face, only the ice cap was visible.

In early February conditions improved and some images were taken. The best night was February 7. I was able to capture an image which showed the ice cap and several low albedo features. The image below was taken at 6:55 Universal Time on February 8. The image on the right shows a graphical representation of Mars based on a Viking image. At the time, Mars' image was 13.87" in diameter (it was 14.09" at maximum on January 27).



You will continue to have an opportunity to observe Mars this month, although its image will be shrinking away. On March 7 it will measure 11.38" and 9.12" on April 1. The next close approach will be March 3, 2012, one of the worse apparitions in years. Its disc will measure 13.88" at closest approach. Six years later, on July 27, 2018, however, one of the best close approaches will occur. Mars' disc will measure 24.26" across, almost as good as the last "best" that occurred on August 26, 2003 (25.10").