



# THE STAR DIAGONAL

THE JOURNAL OF THE OGDEN ASTRONOMICAL SOCIETY

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<http://physics.weber.edu/palen/oas/>

## The President's Message

Hi All:

Well here we are spring is springing up all around and a young astronomer's thoughts turn to observing (thus making for a low birth rate among young astronomers). It is time to start our public star parties and of course we have to change the location of the first party unfortunately Ogden City charges a little too much to use their parks so we are changing our location to Schneider's Bluff Golf Course the address is 3500 W. 300 No. in West Point. They are excited to have us coming out and are being very helpful. With us being at a golf course I would like to do a little golf tournament I was thinking a two person scramble for those of you that are interested I would also like to do a little potluck dinner I will supply the dogs and burgers you all bring a side dish and your own drinks I want to thank Mike Kline for all his leg work on this situation. Oh by the way, it will be on April 16 Astronomy Day.

I have been enjoying the activities this past month to start the Messier marathon was a lot of fun Friday night was good the skies were nice and the new lights from the monument building were just fantastic (thus making for OAS to look for a new location if we can't talk them into putting in a switch). Lee and I went down to the Doug Miller Outdoor Sports Show and gave a talk on telescope buying it seemed to be a good presentation. Then Monday the 21st a few of us traveled down to BYU to see there new projector down there and to listen to a talk from David Levy that I found to be most interesting and it was refreshing to see someone of his stature that still has so much passion about observing we got to have a little one on one with him as folks were looking through some scopes. I don't think that there was one of us that went down there didn't fill the same the sacrifices he has made is incredible just to do the thing he loves so much.

This month we have been asked to do some collimation on Ott planetarium's telescopes so bring your collimation

tools or that scope that is giving you fits and lets get things lined up.

Clear skies

Craig Browne

## OAS Minutes, Mar 2005

The meeting of the Ogden Astronomical Society was held on Mar. 10. President Craig Browne called the meeting to order. The Messier Marathon is scheduled for March 11 & 12 at Golden Spike National Historical Site. This should be a fun activity. Craig Browne will provide some soup or stew for our middle of the night warm up. We also have a star party planned for Cathedral Gorge on April 8 & 9. Cathedral Gorge is located in Nevada about 90 miles west of Cedar City. Several members of the club have been to the Las Vegas club's star party at Cathedral Gorge and have really enjoyed it. We are planning to obtain the group site for camping. We have two school star parties scheduled, 4/15 West Point Jr High and 4/28 Adams Elementary in Layton. Details will be sent out in OAS news. Craig and Lee will representing the club at Doug Millers Outdoors expo. If anyone wants to participate please let them know. There was a short discussion on the status of the 24" mirror. Jim & Dale are still working on the proposal. Craig and Dave then put on a little lecture about the Messier Marathon. It was discovered that we should have given the planetarium staff a little more notice on what we wanted to see on the dome. They haven't created the program that displays all the locations for the Messier objects yet. Dave also demonstrated a lesson from one of the Night Sky Network packets. It related 1 light year to 40 miles and gave the distances to some of the objects we observe. The Milkyway is the size of North America. The meeting was then ajourned.

- David Dunn

## **Cathedral Gorge Star Party**

The Cathedral Gorge Star Party will be April 8 & 9. Cathedral Gorge is about 80 miles west of Cedar City. Exit off I-15 on exit 59. Turn left onto UT-56 (200 St N). Continue on UT-56 for 58.6 miles. Continue on NV-319 for 19.8 miles to Panaca. Cathedral Gorge is about 2 miles from Panaca and about 1 mile north of the intersection of NV-319 and US-93. We have reserved Group Site 1 at the campground. We will need to share the reservation fee of \$30. In addition, each vehicle will cost \$14. We look forward to seeing you there.

## **Messier Marathon**

The Messier Marathon at Golden Spike was a little disappointing. The lights on the front of the visitor's Center bothered us more than we thought they would. We would still like to work with the monument to have some star parties there, but we will need to find a way to have the lights turned off. We did have a good time Friday night. We blocked the lights by setting a couple of Motor Homes between the lights and our telescopes. I think we all enjoyed some of the views through Ron's 25" scope. Doug had BOB there. Using the "Sky Lizard" we were able to see our way through about half of the objects. We quit early and decided to see what Saturday night brought. We did see M74. I think this might have been the result of how early we were in the month. This probably would have made the morning objects more difficult. Saturday the wind blew all day and was still blowing at dark so most of us packed up and went home.

- Dave

We stayed over Saturday night at the Golden Spike star party, it was windy but I set up and had two hours of good seeing. The wind calmed down I had my list. It started with Caldwell 14 the double cluster and ended with Caldwell 13 the E.T. cluster. I am now an E.T. fan It was all and more than I have expected. Everyone that had big scopes was wise to have went home.

- Les Bitton

## **OAS Astronomy Day Activity**

OAS will host a public star party at Schneider's Bluff Golf Course the address is 3500 W. 300 No. in West Point. OAS members are invited to participate in a little golf tournament, possibly a two person scramble, and a

potluck dinner with Craig supplying the dogs and burgers. Everyone can bring a side dish and your own drinks.

## **SLAS Astronomy Day & Observatory Grand Opening**

The Salt Lake Astronomical Society invites everyone to celebrate International Astronomy Day, April 16, 2005, at the society's Stansbury Park Observatory Complex. This year's event will be made extra special with the grand opening of the society's new Harmons Observatory which houses one of the largest telescopes regularly available to the public. Several smaller telescopes will also be available for use on the observatory grounds.

Activities will kick-off at 4:00 p.m. MDT with observatory tours, solar viewing, children's games, presentations and door prize drawings with two telescopes to be given away.

Dr. Karl Haisch Jr., professor of astronomy at Utah Valley State College, is the event's guest speaker. His talk is entitled "Star Formation: Disks, Jets and Planets".

Professor Haisch has published about 25 papers on circumstellar disks, molecular outflows and planet searches.

All activities are free. Souvenir T-shirts, ball caps, star charts and food concessions will be available for purchase until dusk.

As the skies begin to grow dark, the Moon, Saturn and Jupiter will take center stage. Later, countless galaxies, nebulae and star clusters will be available for viewing.

The observatory is located at 15 Plaza in Stansbury Park and can be reached by taking Interstate 80 west from Salt Lake City to the Stansbury / Tooele exit (#99) and then following the signs south, first to Stansbury Park and then to the observatory. Drive time from downtown Salt Lake City is about 35 minutes. A detailed map is available on the society's web site at <http://starparty.us>.

All activities are held weather permitting.

Ann House

## Recommendations for Effective Outdoor Lighting

In order to carry out astronomical research, a dark nighttime sky is essential. Contributions of light from the earth (both direct emissions and reflected light) brighten the night sky background. This brightening also greatly diminishes the view of the heavens for amateur astronomers and the general public. Many people have never seen the Milky Way, much less other interesting celestial objects.

The type of light source is important because some types may be more effectively filtered out at the telescope than others. Low pressure sodium (LPS) is the preferred source, as its nearly monochromatic yellow light can be easily filtered out. Other advantages of LPS are that the wavelength emitted is near that where the human eye is most sensitive and efficient, and LPS is also the most energy efficient light source available. With the current push for broader application of white light sources such as metal halide, which is very spectrally polluting, we hope that someone will invent an economical white light source made up entirely of three or four carefully chosen and very narrow spectral lines. These narrow lines would be easy to filter out, and the source would leave over 99% of the visible spectrum unpolluted.

Following is a list of commonly used light source types, along with suggested applications:

### **Low Pressure Sodium (LPS)**

- Roadways, Walkways, and Parking Areas
- Outdoor areas needing security lighting\*
- Residential security lighting\*
- Any area where color rendering is not critical

### **High Pressure Sodium (HPS)**

- Sport Parks, and Tennis Courts
- Major roadways, some Parking Areas
- Security areas where color rendering is needed

### **Metal Halide (MH)**

- Display lighting where color rendering is critical
- Some sports lighting, where color rendering is critical

### **Mercury Vapor (MV)**

- Not an energy efficient source, not recommended. Use MH instead.
- Older installations, where shielding is good, can remain in use, of course.

### **Incandescent, including Quartz**

- Not energy efficient, but OK for low-wattage applications
- Occupancy sensor activated lighting
- Infrequently used lighting
- Low-wattage lamps for porch lights, and other low-wattage usages. Should be well shielded.

### **Compact Fluorescent**

- OK for many low-wattage applications, such as residential lighting.

In general: All outdoor fixtures should be fully-shielded and installed in such a way that no light is emitted above a horizontal plane running through the lowest part of the fixture. Thus glare, light trespass, and light pollution will be minimized, and energy savings will be maximized. Low pressure sodium should be used wherever possible (where color rendering is not critical). Use time controls or occupancy sensors to turn lamps off when not needed.

\*LPS has the ability to restrike immediately after a momentary power failure, while HPS and MH must cool before restriking.

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