



WNCC Foundation (WNAS)  
2201 West College Parkway  
Carson City, NV 89703



## Events Calendar

	SUN	MON	TUE	WED	THU	FRI	SAT
July							1 Star Party
	2	3 First Qtr Moon	4	5	6	7	8 Star Party
	9	10 Full Moon	11	12	13	14	15 Star Party
	16	17 Last Qtr Moon	18 <b>BOG MTG</b>	19	20 <b>WNAS MTG</b>	21	22 Star Party, *Dark Sky
	23	24 New Moon	25	26	27	28	29 Star Party
	30	31					

August			1	2 First Qtr Moon	3	4	5 Star Party
	6	7	8	9 Full Moon	10	11 Perseids, Neptune at Opposition	12 Star Party, Perseids
	13	14	15 Last Qtr Moon	16	17 <b>BOG/OPS MTG</b>	18	19 Star Party, *Dark Sky
	20	21	22	23 New Moon	24	25	26 Star Party, *Dark Sky
	27	28	29	30	31 First Qtr Moon		

### Dates to Remember:

#### July, 2006

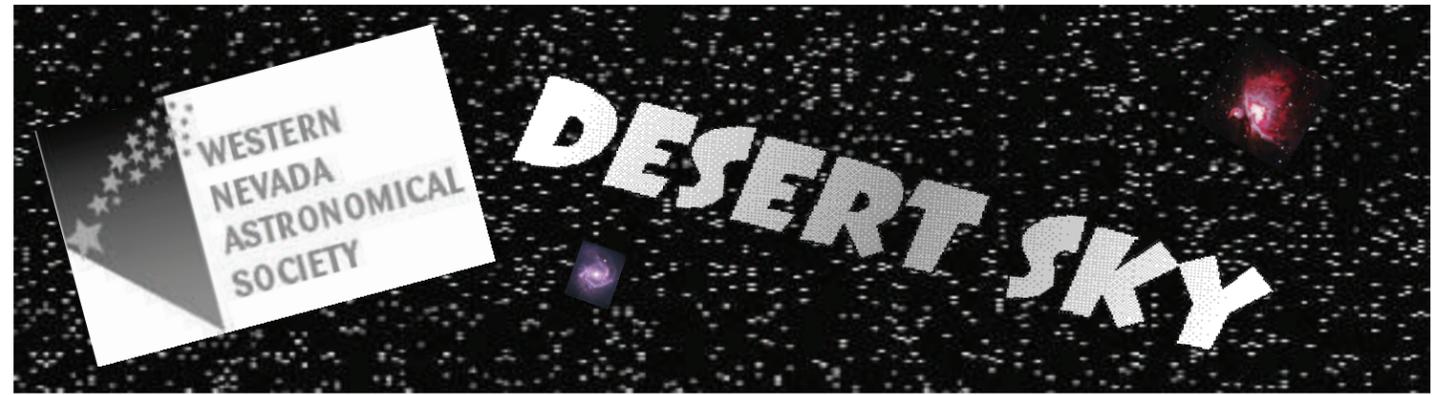
3rd 1st Qtr Moon Rise, 1:21pm  
10th Full Moon Rise, 8:48 pm,  
Thunder or Hay Moon  
18th BOG 07:00 pm  
17th Last Qtr Moon Rise, None  
24th New Moon Rise, 5:03 am

#### July 20th WNAS General Membership Mtg 7:00 p.m.

#### August, 2006

2nd 1st Qtr Moon Rise, 2:17 pm  
9th Full Moon Rise, 08:38 pm,  
Green Corn or Grain Moon  
11-12th Perseid Meteor Showers  
15th Last Qtr Mn Rise, 11:27pm  
17th BOG/OPS Mtg, 7:00 pm  
23rd New Moon Rise, 6:05 am  
31st 1st Qtr Moon Rise, 2:17 pm

\*These are the best dark sky weekends for observing faint objects.



## Volume 5, Number 4

July/August 2006

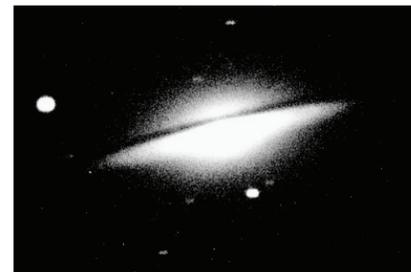
## President's Corner



We the members of the Western Nevada Astronomical Society will have the pleasure of observing a rising star. Not the kind of star that is powered via core fusion, but one of our own students powered by intellect, imagination and a great desire to venture into new spatial realms. Amanda Heidermann, graduated from Carson High School in 2000, attended Western Nevada Community College (WNCC) for 2 years and transferred to the University of California, Berkley, where she took a degree in astrophysics. At our

Regular meeting on July 20, Amanda will be discussing the research she did at the National Radio Astronomy Observatory during 2005/06. It would be wonderful if we all would attend and show our support for her work. Amanda is working at the Jack C. Davis Observatory this summer on a number of projects and will be leaving us in August to begin working on her PhD in Astronomy at the University of Texas at Austin. I will speak for all of you that we wish her all the best in her new endeavors along with many clear skies.

## The Sombrero Galaxy, Messier 104



Unprocessed image taken by Walt Dillard using JCDO's C-14 with SBIG CCD Camera

Discovered by Pierre Mechain in 1781, the galaxy's hallmark is a brilliant white, bulbous core encircled by the thick dust lanes comprising the spiral structure of the galaxy. As seen from Earth, the galaxy is tilted nearly edge-on. We view it from just six degrees north of its equatorial plane. This brilliant galaxy was named the Sombrero because of its resemblance to the broad rim and high-topped Mexican hat.

At a relatively bright magnitude of +8, M104 is just beyond the limit of naked-eye visibility and is easily seen through small telescopes. The Sombrero lies at the southern edge of the rich Virgo cluster of galaxies and is one of the most massive objects in that group, equivalent to 800 billion suns. The galaxy is 50,000 light-years across and is located 28 million light-years from Earth.

This galaxy was the first one with a large redshift found, by Vesto M. Slipher at Lowell Observatory in 1912. Its redshift corresponds to a recession velocity of about 1,000 km/sec.

Thanks to Walt Dillard for the Sombrero Image and Jack L. Davis for the article.

### Inside the Newsletter

Ask Jack	2
WNAS Information Board	2
Objects in the Sky	2
WNAS Operations Meeting	3
Space Notes	3



### WNAS Officers

**President**  
Robert Collier  
collier@wncc.edu

**Vice President**  
Jack L. Davis  
jackldavisdo@excite.com

**Treasurer**  
Dana Luterick  
gjl1959@775.net

**Secretary**  
Barry Morgan  
Barry-morgan@sbcglobal.net

**Newsletter Editor**  
Brian Guerin  
zapkgbg@msn.com

**Webmaster**  
Ryan Collier  
rdcollier@gmail.com

**Director-JCD Observatory**  
Robert D. Collier  
collier@wncc.edu

**WNAS web site:**  
<http://western-Nevada-astronomical-society.com>

## Ask Jack

This is the memberships column to ask questions about WNAS activities, the JCD Observatory and the field of astronomy. Please submit questions to the Editor at [www.zapkgbg@msn.com](mailto:www.zapkgbg@msn.com) or at the next WNAS membership meeting on **July 20th**.

**Q: Is it possible for the general public to suggest a name for a newly discovered star?** No, it is not possible for the general public to name a star. Only the International Astronomical Union is recognized as valid for naming stars. All stars bright enough to be seen with the naked eye have been given names or designations already, and hundreds of thousands of others have been given catalog entries.

**Q: What is the Death Star?** Some Scientists speculate that the sun has an unseen companion star whose orbit brings it close to the solar system every 26 million years. On each trip inward, this star unleashes numerous comets from the Oort cloud. According to this theory, on a previous pass (about 65 million years ago), many of these comets struck the earth. This resulted in explosive collisions that pushed a great dark cloud of dust into the atmosphere, thus shielding the earth's surface from sunlight. This prevented new plant life and caused the extinction of the dinosaurs. The search for this star has been unsuccessful, perhaps the reason is that it doesn't exist!

**Q: Is there a simple way to remember the nine planets and their order in the solar system?** Yes, Jack L. Davis, one of our observatory volunteers and Vice President of the WNAS enlightened us all with this mnemonic to help remember, "My Very Educated Mother Just Showed Us Nine Planets." Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto. Thanks Jack for this tidbit of knowledge!

## WNAS Information Board - Past and Future Events

First off, I would like to remind all members that Thursday, **July 20th** will be the next general membership meeting of the WNAS. We hope to see a good crowd and it would be great if everyone could arrive by 7:00 pm at the Observatory. The planned lecture for this meeting will be given by graduate student Amanda Heidermann. Amanda will discuss the research she did at the National Radio Astronomy Observatory. See the Presidents Corner for more information on Amanda and her background.

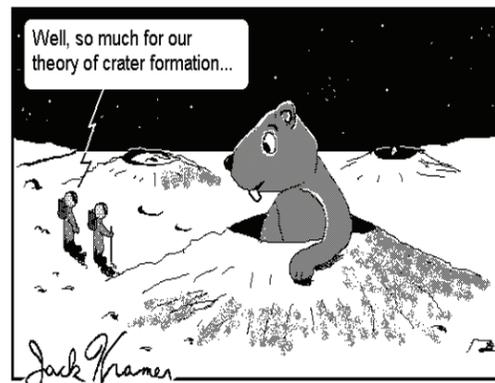
Novice training classes at the JCDO have been a wonderful success so far this summer. The first class held on May 6th was attended by at least 40 interested participants, the lecture on how to use a telescope was given by Robert Collier and a review of the current night sky was given by Brian Guerin using The Sky computer program. Participants then used and viewed the night sky with the observatories telescopes. The next novice night was a similar success with Frank Davis giving the lecture on telescopes. Many thanks to both Robert and Frank!

I know I'm repeating myself but, the remaining Novice Training Classes are scheduled for July 1st and Sept. 2nd. These will be the last two classes for the remainder of this year. We ask participants to arrive an hour before dark. Observatory volunteers will present a lecture on the use of telescopes and what interesting objects/constellations are in that evenings night sky. After the lecture, volunteers will take participants out to the observation deck and let them find some of the wonders of the universe.

As a reminder to all members, we are still in need of Saturday night volunteers for our weekly star parties. If any of you have an interest in imaging the night sky the C-400 and BRC-250 are now fully operational! This is a great time of the year to come up to our weekly Saturday night star party, so try not to let another summer slip by without visiting the observatory. Right now the volunteers can show you: Albireo, the skies most beautiful double star; M-13, the northern hemisphere's largest globular cluster; M-57, a spectacular planetary nebula and don't forget the Summer Triangle!

## Objects in the Night

Can you identify the celestial objects in the Desert Sky logo? See below.



Cartoon provided by permission of Jack Kramer

Objects in the Night Sky answers: Left center - M61, Spiral Galaxy in Virgo, Upper right - Orion Nebula

**Note from the Editor:** Some of the pictures may not come out as clear as we would like in the newsletter, go to our website for the best resolution.

## WNAS May General Meeting Minutes

The May 18<sup>th</sup> meeting of the WNAS general membership opened at 7:00 at the Jack C. Davis Observatory. The meeting started with a review and approval of the last meetings minutes, followed by the treasury report by Dana Luterick.

The new Jack C. Davis Observatory brochures have been completed and were distributed to everyone at the meeting. The brochures were published by the Information and Market Services Department of WNCC. Everyone at WNAS would like to thank them for a job well done!

Old business topics were reviewed and discussed. There is still no new news on the light blocking wall, the wall, as maybe you know have escalated in costs and we are currently looking for new funds to complete the job. The best news that came out the meeting is that the Takahashi BRC-250 is now completely functional and capable of wide field imaging.

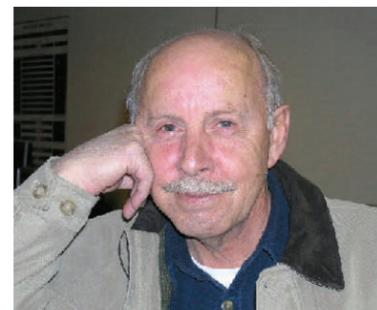
This concluded the business portion of the meeting and we moved on to more interesting events.

This nights lecture was given by observatory volunteer and former biology professor Walt Dillard. The title of Walt's lecture was "Who Needs That Moon Calendar?" The lecture was enjoyed by all as Walt took us through the motions and phases of the moon.

The presentation was followed by a Q & A session, any open comments from the membership. Meeting adjourned at 8:35 pm.

Officers of the WNAS ask that all members visit the new website and let us know your opinion, Catherine "Cat" Bodenaer is working on getting all the archived/past WNAS newsletters incorporated into the new website.

## Space Notes: The Survival of Single Planet Species, Continued



Last issue we talked about John Young's three reasons why single planet species don't survive. This time I will add one more reason that seems obvious to me. That is the insatiable hunger for resources that is the driving force behind every major economic system of all the large societies on the planet.

We tend to think in terms of capitalism but China, the most basic communist nation on Earth, (not to mention the largest) is also in growth mode; as are the EU and the third world countries of the global south. It is true that there are some societies that eschew growth, aiming for sufficient sustainability. But they are small and will probably suffer resource shortages along with the rest of us. We are, after all, hurtling through space on what has become a global village.

We, as Americans, have been living well above the norm for the rest of the world. With less than ten per cent of the population of the planet we consume more than 25 per cent of the worlds resources.

Some statistics from the Worldwatch Institute report *State of the World 2006*:

Gross domestic product (dollars) per person in: China 4,600.00, India 2,500, Europe 26,900.00, Japan 29,400.00, USA 40,100.00.

Barrels of oil used per person every year in: China 1.9, India 0.9, USA 25.3.

Kilograms of grain consumed per person in 2005 in: China 292, India 173, Europe 561, Japan 354, USA 918.

If China and India were to catch up to the U.S., that is consume what the U.S. consumes per capita today, then all the resources of a second planet Earth would be needed to sustain the two economies. At this point, I may point out, we don't have a second planet Earth. It would only seem prudent that as a species we begin to make some effort to acquire one.

By Stargeezer