http://western-Nevada-astronomical-society.com

WESTERN NEVADA ASTRONOMICAL SOCIETY

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

Events Calendar

November

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

December

					1	2 Star Party
3	4 Full Moon	5	6	7	8	9 Star Party
10	11	12 Last Qtr Moon	13	14	15	16 Star Party, Dark Skies*
17	18	19	20 New Moon	21 **BOG/OPS MEETING**	22 Winter Solstice	23 Star Party, Dark Skies*
24	25	26	27 First Qtr Moon	28	29	30 Star Party
31						

Dates to Remember:

Novtember, 2006

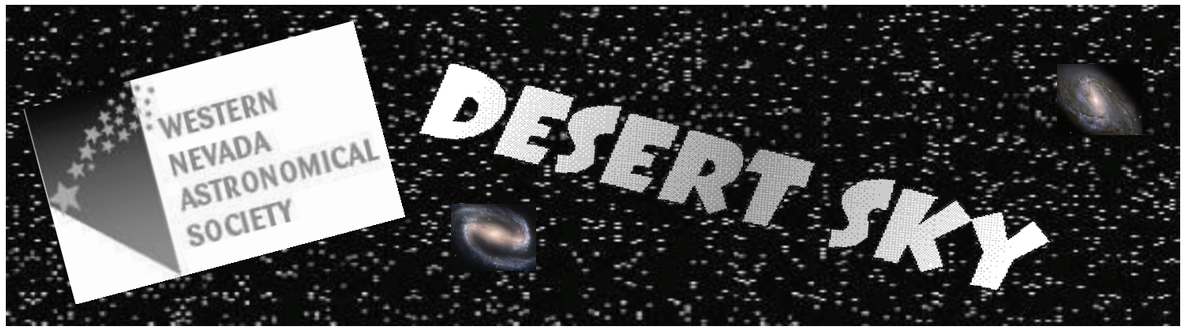
5th Full Moon Rise, 4:48 pm
Frosty Moon
12th Last Qtr Mn Rise, 11:42 pm
15th BOG Meeting 7:00 pm
16th General WNAS Meeting
20th New Moon Rise, 6:48 am
27th First Qtr Mn Rise, 12:29 pm

November 16th WNAS General Membership Mtg 7:00 p.m.

December, 2006

4th Full Moon Rise, 4:06 pm
Moon before Yule
12th Last Qtr Moon Rise, none
20th New Moon Rise, 7:47 am
21st BOG/OPS Mtg, 7:00 pm
22nd Winter Solstice
27 First Qtr Mn Rise, 11:48 am

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



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President's Corner

The JCD Observatory is maturing into a significant center for astronomical science and education. Thanks to the stellar efforts of many WNAS volunteers, the observatory now has all of it's automated telescopes, computers and external systems operating as proposed from the inception of the observatory. As we have learned and continue to adapt to the changing characteristics of the technologies used to operate the telescopes at the observatory, there will always be challenges to maintain and upgrade their performance. Just one example of many (my space is limited) that is noteworthy to site is the work done by Gerald Brandvold, David Bernard, and Jack L. Davis on our external solar dome. Gerald and his group have tenaciously transformed a large box of assorted electromechanical parts, wires and fasteners of all kinds, computers, and several software packages into an amazing automated marvel. We plan to use this solar dome and telescope system to observe and capture images of Mercury passing in front of (transiting) the Sun and display this event, in real time, on the plasma screen inside the observatory. We will also be observing solar prominences, towering sheets of hot plasma projecting out into the corona of the Sun. By the time you read this article many students and local citizens will have observed and comprehended a great deal more about the Earth, Sun and Solar System in which they live.

Space Notes: Hot Jupiters and Water Earths

Imagine looking out at dusk and seeing a Jupiter sized planet low on the horizon orbiting the Sun inside the present orbit of Mercury. A new study by the University of Colorado and Penn State University has posited just such a possibility for as many as one third of the 200 known planetary systems.

Forty percent of the known planets around other stars are Hot Jupiters, large gas giants that orbit very close to their host stars. Using computer simulations starting with proto-planetary disks containing more than 1000 moon sized, rocky and icy bodies the team used current theories of how our own solar system formed and modeled about 200 millions years of planetary evolution.

The study indicates that Hot Jupiters push and pull the disk material as they move inward, flinging rocky debris outward where it is likely to coalesce into Earth-like planets. All the while turbulence in the dense surrounding gas slows down the orbits of small icy bodies in the outer disk, causing them to spiral inward delivering water to the newly formed rocky planets in the habitable zone. Voila! A water world in the habitable zone potentially capable of supporting life.

This whole process can take up to 200 million years to complete compared to the 30 to 50 million years geologist believe Earth took to fully form. By Stargeezer

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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 or at the next WNAS membership meeting on ***November 16th***.

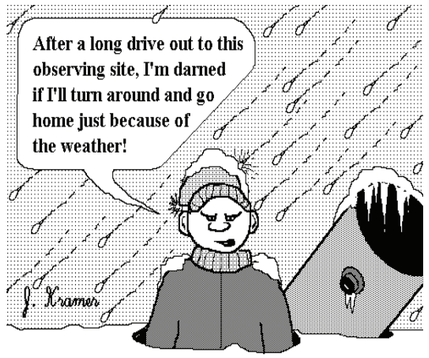
Q: How large is the International Space Station and how can you tell when it will be overhead? Here are a few quick facts: Weight is 430,000 lbs, habitable volume is 15,000 cubic feet, width across solar arrays is 240 ft, length from Destiny Lab to Zvezda is 146 ft and the height is 90 ft. The ISS can be easily viewed at night as it moves across the sky. The times, altitude and azimuth of the crossings can be found at www.heavens-above.com.

Q: Have scientists discovered the moon's origin? Scientists have come up with four theories on the moon's origin. One is the fission theory which states that the moon split off from the spinning earth long ago. The origin of this split may have been the Pacific Ocean. A second is the capture theory, which states that the earth's gravity captured the moon as it passed close to earth. The third has several names, condensation, nebular contraction or accretion theory. This proposes that the earth and moon were created at the same time from clouds of space material. The fourth and most accepted lunar origin theory today is the collision between earth and another large planetary body. Each of these theories presents it's own scientific problems, which only means the moons origin still remains one of sciences mysteries.

Q: Could there be life on Jupiter or any of the gas giants? Jupiter and the gas giants have no solid surface, like the earth. Rather the density and temperature increase with depth. The lack of solid surface need not be a deterrent to life, though, as many aquatic animals (e.g. fish, jellyfish) never touch a solid surface. There has been speculation that massive gas-bag organisms could exist in Jupiter's atmosphere. These organisms might be something like jellyfish, floating upon the atmosphere currents and eating either each other or the organic materials formed in Jupiter's atmosphere.

Objects in the Night

Objects in the Night Sky answers: Left center - Barrel Galaxy NGC 1300, Upper right - Dusty Spiral M-66



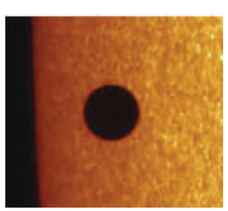
Cartoon provided by permission of Jack Kramer

WNAS Information Board - Past and Future Events

First off, I would like to remind all members that Thursday, **November 16th** 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 last novice training class was on Sept. 2nd and as expected we had a great crowd, infact we're seeing a lot of return future amateur astronomers. One great recommendation of these programs is that even I (the newsletter editor) still find all of these classes fascinating. Robert Collier gave the how to use a telescope lecture and Jack L. Davis gave a tour of the night sky with Starry Night Pro. Watch the spring newsletters for the dates of next summers novice training nights.

As a (constant) 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! With the arrival of winter there are many wonderful objects to view including the late evening rise of Saturn and the great Orion Nebula in the coming weeks and months.



Mercury Transiting The Sun

Today November 8th was a big day for the Jack C. Davis Observatory with the transit of the Sun by Mercury. Transits occur when Mercury or Venus pass between the Earth and the Sun. These transits occur on a regular basis with Mercury, but are less frequent with Venus.

The weather was blustery, with passing light showers and clouds interfering throughout the day. This didn't prevent the observatory volunteers from doing there best to show off the Mercury transit to the many visitors that came to see this unusual event.

The observatory had both Coronado H-Alpha telescopes, the C-14 and a couple dobsonians operating throughout most of the day.

WNAS September General Meeting Minutes

Once a year the WNAS has organized a special meeting with snacks, lectures and prizes. This being the special meeting for 2006, Robert Collier invited everyone to enjoy the refreshments and snacks set up by Karen Collier and Cleta Dillard, many thanks to these ladies for a great job. Everyone was encouraged to get a ticket for the prize drawing after the business portion of the meeting was completed.

Robert opened the September 21st meeting of the WNAS general membership 7:30. After welcoming the 25 plus attendees, the minutes from the last meeting were approved.. Dana Luterick followed with a treasury report, the Association has approximately $3794.30 in funds available

Topics of discussion:

Mike Thomas, a member of WNAS and ASN (Astronomical Society of Nevada—Reno) is acting as a liaison between the two astronomical societies attended and had the following comments. First, on Oct 7th Fleishman Planetarium will be re-opening after renovations. On this date at 11:00 am there will be an open house. Secondly, Mike recommended that we exchange newsletters. As the editor of the WNAS newsletter, I agreed to get copies of our newsletter to Mike through a mutual friend we have. Lastly, it was suggested that we try to combine one of our star parties in the future.

The status of the observatories light blocking wall was discussed. Robert is making progress on this subject. Meetings are being arranged and have occurred between Robert, David Rollings, Gene Martin and the architecture department. Dan Neverit, a VP of the college has become involved and is helping the project move along. John Simmons will be the general contractor if certain issues are cleared up to his satisfaction. There are still issues with the special use permit and another permit that is required to start the project. Once these items are cleared up the project can begin.

The program for this evening was a series of short lectures on all that the observatory had to offer. Robert started with an introduction to the topics and speakers. Gerald Brandvold took the members out the west door and discussed the equipment on the hill (radio telescope, solar dome, etc.). Barry Morgan talked about the entrance and the classroom in general. Marty Bradt gave a detailed discussion of the computers along the west wall. Walt Dillard talked about the three main telescopes and the computers they are connected too. Brian Guerin talked about the east observation deck and it's use and significance to the promotion of astronomy to the public. Each talk produced lots of comments and discussion!!

To some the best part of the evening was about to come, the prize drawings. There were three prizes a planisphere, a book on astronomy and the grand prize a 6" Orion Dobsonian Telescope with a computerized star finding feature. Here are a few pictures of the nights activities before I list the winners!

The WNAS prize winners for 2006 were: The Seasonal Star Chart/Planisphere went to John Vicent, Astronomy, A Beginners Guide to the Universe, went to Don Legrand and the grand prize went to Silver State Charter School (Carson City) science teacher Al Adrian. Al, Don and John are all standing with Robert Collier, Director of the Jack C. Davis Observatory and President of WNAS.

Robert adjourned the meeting at 8:45 pm. The next Western Nevada Astronomical Society General meeting will be November 16th at 7:00 pm.