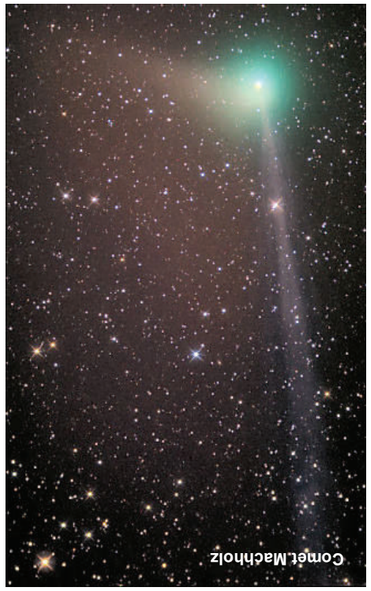
http://western-Nevada-astronomical-society.com



WESTERN NEVADA ASTRONOMICAL SOCIETY

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

Events Calendar

January

SUN	MON	TUE	WED	THU	FRI	SAT
						1 Star Party
2	3 Last Qtr Moon	4	5	6	7	8 Star Party
9	10 New Moon	11	12	13 Saturn at Opposition	14 Huygens Titan Landing	15 Star Party
16 First Qtr Moon	17	18	19	20 **WNAS Meeting**	21	22 Star Party
23	24 **BD of Gov Meeting**	25 Full Moon	26	27	28	29 Star Party
30	31					

February

		1 Last Qtr Moon	2	3	4	5 Star Party
6	7	8 New Moon	9	10	11	12 Star Party
13	14 **BD of Gov Meeting**	15 First Qtr Moon	16	17 **OP Board Meeting**	18	19 Star Party
20	21	22	23 Full Moon	24	25	26 Star Party
27	28					

Dates to Remember:

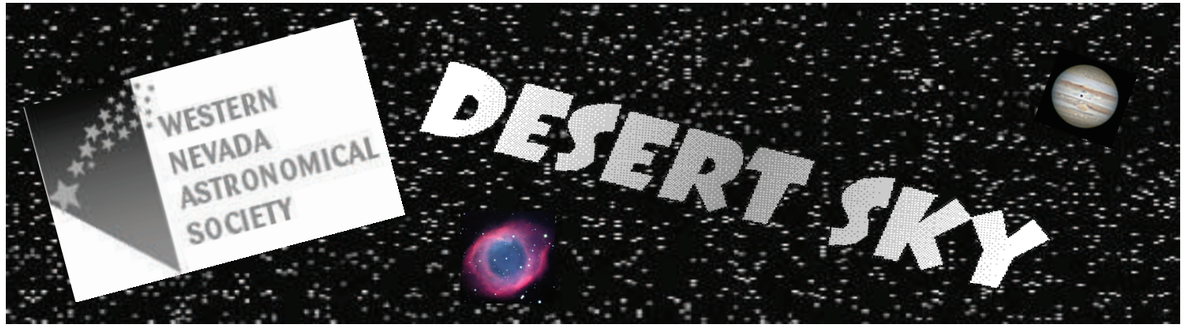
January 2005

3rd Last Quarter Moon 09:47
10th New Moon 00:04
13th Saturn reaches closest point in it's orbit to earth.
14th Huygens probe lands on Saturn's largest moon Titan.
16th First Quarter Moon 22:59
18th First Quarter Moon 21:52
25th Full Moon 02:33

Jan. 20th WNAS General Membership Meeting 7:00 p.m.

February 2005

1st Last Quarter Moon 23:28
8th New Moon 14:29
15th First Quarter Moon 16:17
23rd Full Moon 20:54



Volume 4, Number 1 **January/February 2005**

President's Corner

The WNAS Members who attended the November meeting were delighted with the book drawing and restaurant discount coupons. They also had a chance to answer the WNAS Membership Questionnaire (can be found on WNAS website) regarding their interests. We would like to have your input to help better representative your astronomy desires in the future. So, we invite you to attend our next meeting where we will make the forms available, one last time.

At our last WNAS meeting, we presented a detailed plan for all members to become trained and certified on any JCD Observatory equipment of their choice. We have created these certifications to allow members the ability to learn the ins and outs of a typical piece of equipment or a particular manufacturer before they purchase a similar unit. Come and try your skills at learning how to use a new telescope.

Also, at our last meeting we instituted a standard for all future WNAS meetings. We had a presentation on the Nature of Light. We wish to continue this tutorial feature at our next meeting by having a presentation on gamma ray bursts. Just another reason to come to your WNAS meeting!

Comet Machholz

A comet discovered earlier this year by Donald Machholz has rounded the Sun and will be closest to Earth on January 5-6, 2005. Comet Machholz is expected to come within 32 million miles of Earth and reach a magnitude of 4.0, making it slightly brighter than the Andromeda Galaxy (3.4). Backyard astronomers are able to see Machholz through telescopes and binoculars, from dark sites the comet can be spotted naked eye. The location of Machholz in the night sky can be found in the January issues of Sky and Telescope or Astronomy magazines and at many internet sites.

Comets are composed of rocky material and icy mixtures of water and various other materials. NASA will launch the Deep Impact mission in January, 2005 to further explore the composition of comets. This mission will impact comet Tempel 1 in an effort to see what it's made of.

"Seeing Beyond the Stars"

"Seeing Beyond the Stars" is the feature article in the new Carson Magazine. What's interesting and significant for WNAS is on the front cover is Western Nevada Community College President Dr. Carol Lucy during an outing at the Jack C. Davis Observatory. The article is primarily about Dr. Lucy and the great opportunities now being offered by WNCC, but many of the pictures feature the Observatory and it's volunteers. A small part of the article does talk about the Observatory and it's name sake Jack C. Davis. A really great article, look for the magazine at your local bookstore.

Inside the Newsletter

WNAS Officers

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 ***January 20***.

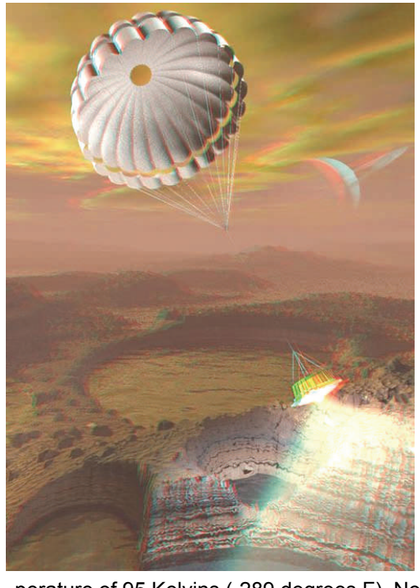
Q: What's a good telescope for a child?

Children under 6 years may have trouble focusing and pointing a scope, with this group it's best to stick with visual observations using a light pointer and binoculars. For the older children, a 4.5 inch dobsonian is probably your best bet, they are rugged, very stable and easy to point. Dobsonians or any reflector will have to be collimated occasionally by the parents. An alternative choice might be a 3 inch refractor with an alt-az mount, but these mounts in the lower price ranges are usually very unstable and may become frustrating for a young child to operate. If you would like to first try out various telescope types, they are all available at the Observatory on any Saturday night. The Observatory volunteers will answer all your questions and give you some hands on operation. One last note, don't buy a department store scope, buy from a reputable dealer like Meade, Orion or Celestron.

Q: What's the difference between an observatory and a planetarium?

We have examples of both in the Reno-Carson area. An observatory is a structure built primarily to house a telescope or other astronomical instrument for celestial observing. The JCD Observatory is a perfect example. A planetarium is a building in which a representation of the night sky is projected on a domed ceiling with the audience seated below. Carl Zeiss built the first planetarium in 1923. The Fleishman Planetarium, located at the University of Nevada - Reno is a great example and well worth visiting.

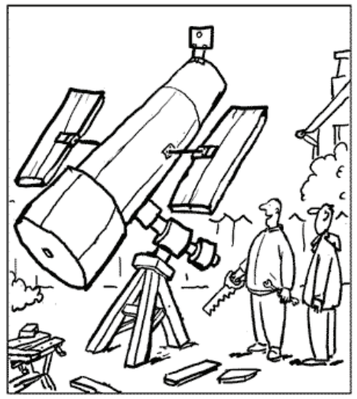
The Scientific Event of 2005



In 1655, Dutch scientist Christaan Huygens discovered the rings of Saturn and it's largest moon Titan. Three and a half centuries later the Huygens probe will descend into the dense atmosphere of Titan making this, possibly, the most exciting event of the new year. The Cassini spacecraft released the Huygens probe on January 24 and the descent to Titan's surface will begin on January 14, NASA will announce the exact time. The descent will take 2.5 hours, under an 8.3 meter main parachute. During this long descent, the Huygens probe will continuously send data to earth via the Cassini spacecraft. What happens when and if it lands on Titan is the greatest mystery of all, will it land in liquid methane or on solid land? Will it continue to operate or not? Like earth, most of Titan's atmosphere is composed of nitrogen, however it also contains considerable amounts of methane and ethane, with a surface temperature of 95 Kelvins (-289 degrees F). Not the most hospitable conditions but many scientists believe very similar to conditions on Earth, during it's early stages of development. For much more information on this fascinating subject go to NASA's website at www.jpl.nasa.gov.

Objects in the Night

Can you identify the celestial objects in the Desert Sky logo? See page 3.



'It's based on the Hubble Space Telescope.'

This and our last newletter cartoons were graciously provided by C. Madden at www.chrismadden.co.uk.

WNCC Observatory Board of Governors Meeting Minutes

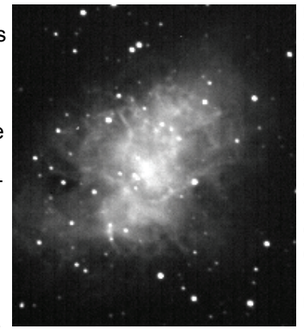
Board President Jack L. Davis opened the meeting at 5:30 pm on Nov. 15th.

Open issues - Discussed new work done on the Solar Observatory Computer and alternate use of the solar telescope. Problems related to the new CG8 telescope and the G-4 telescopes have been returned to Celestron for repair. SAC-7 and SAC-8 camera status reviewed. Observatory auxiliary power source unit and lightning protection equipment purchases, Observatory Library Book purchases, 18" Genoa Telescope acquisition, High School telescope loan program and the light blocking wall between the Observatory and the lights of Carson City all reviewed.

New Business - Discussed possible research projects for the C-400 and Robert Collier announced two new classes, AST 299B (Spectroscopy) and AST 120 (Astrobiology) to be offered.

Meeting was adjourned at 6:10 p.m.

Imaging the Crab Nebula

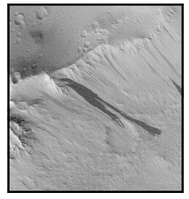


This photograph of the "Crab Nebula" (M-1) was taken at the Jack C. Davis Observatory in January of 2004. We had just begun using the C-400 Takahashi telescope and its CCD camera thus the image is unrefined and with no color filtering. As we improve our skills in pointing, tracking and photographing, this telescope promises to provide many more impressive images of our universe. We have a small group of WNAS members who have shown an interest in the telescope and its workings, but more are needed. Please contact Robert Collier or Jack Davis if you would like to learn, with us, how best to use this impressive machine and perhaps organize your own project.

The "Crab Nebula" is our closest remnant of a supernova. John Bevis an amateur British astronomer discovered the nebula in 1731. Charles Messier independently found it August 28, 1758 while looking for comet Halley. He soon realized that the object had no proper motion and cataloged it on September 12, 1758. It was this discovery that inspired his now famous Messier Catalog. Messier acknowledged Bevis' discovery when he was informed of it in 1771.

This expanding concentration of dust and gas is the result of a supernova recorded by Chinese observers on July 4, 1056. It was one of only a few recorded visual supernovae. The explosion was said to appear about 4 times brighter than Venus or at about a -6 magnitude and was visible for about 23 days in daylight and 653 days at night. There is a neutron star in the central region of the nebula rotating at 30 revolutions per second. The neutron star is an extremely dense object, denser than an atomic nucleus, concentrating more than one solar mass in a volume of 30 kilometers across. Its rotation is slowly decelerating by magnetic interaction with the nebula; this is now a major energy source which makes the nebula shine. This energy source is 100,000 times more energetic than our sun.

The "Crab" can be found in the constellation Taurus, about 1 degree above (toward the zenith) from zeta Tauri. Its visual magnitude is 8.4 and appears to be 6x4 arc minutes in size. M1 is just visible as a dim patch in 7x50 or 10x50 binoculars. With a little more magnification, it is seen as a nebulous oval patch, surrounded by haze. In telescopes starting with 4-inch aperture, some detail in its shape becomes apparent, with some suggestion of mottled or streak structure in the inner part of the nebula.



In December I had the wonderful opportunity to spend two weeks in Hawaii on vacation with my wife, Karen. Having lived and graduated from the University of Hawaii, we have many friends and had many offers of hospitality. One of my oldest friends has recently become interested in astronomy and was more than happy to plan a couple of outings. The first, was a lecture at the University of Hawaii on the VERY unusual subject of "Slope Streaks on Mars." Yes you read that correctly, "Slope Streaks," the lecture was given by Dr. Norbert Schorghofer, Assistant Astronomer. I was afraid this would be a sleeper, so Karen and I picked up a Starbucks and headed to UH with our friend, Ron. By the end of the lecture we were sitting on the edge of our seats, absolutely fascinated with these unusual and unexplained surface markings. More can be learned on this subject at www.msss.com or email Dr. Schorghofer at www.norbert@hawaii.edu, he's looking for research assistants interested in examining future Mars photos. NASA/JPL/MSSS photo. Editor.

WNAS Website Questionnaire

Roger Block, WNAS's President is very interested in learning more about members astronomy, observing and participation interests. Now included on the WNAS website is a questionnaire for just this purpose. Take a few minutes to fill it out and we'll try to tailor some of the Society's activities and our Newsletter to your interests!

Note From Editor

As the Editor for the WNAS Newsletter I would like to encourage the Societies membership to participate in the creative enhancement of our six publications a year. Articles and new ideas are always appreciated. I've added a few new features such as the "Objects in the Sky" and the " Ask Jack" column and hope you will enjoy there addition, but most of all, I would like to hear from you.

WNAS Meeting

President Roger Block opened the meeting at 7:15 p.m.

Introduction: Roger and Gayle Block generously offered 25% discount coupons to their Franktown Grill at Thunder Canyon, an offer that was accepted by many present.
New Business: All members invited to Operating Board Meeting on Dec 17. Jack C. Davis presented first telescope checklist for the LXD 55, these checklists were proposed by Roger Block at the September WNAS meeting. Roger passed out a questionnaire, he developed, to try and determine what the membership expected from WNAS. Frank Davis suggested adding "On Orbit" to the membership benefits and volunteered to do a presentation on the Riverside Telescope Makers Conference.

Closed business at 7:50 p.m.

Objects in the Sky answers: Jupiter (easy) upper right, Planetary Nebula M57 left center