

SPECTRUM

Northern Cross Science Foundation Newsletter

August 2008

LOOKING UP

August 7, Thursday

General Meeting

7:30 p.m. - Business Meeting
Main Program to follow

August 8 & 9 (Fri & Sat)

Public Viewing

7:30 p.m.
Harrington Beach

August 21, Thursday

Board Meeting

7:30 p.m.
Home of Joyce Jentges

August 23, Saturday

Public Viewing

8:30 p.m.
Ice Age Center

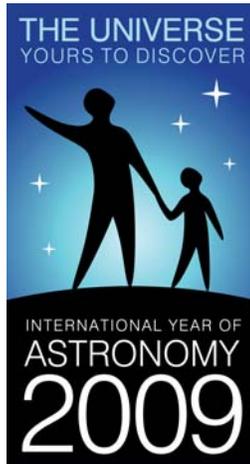
August 31, Sunday

7:00 p.m.
Harrington Beach

September 10, Wednesday

Sidewalk Observing

Setup by 7 p.m.
Bayshore Shopping Ctr.



2009 International Year of Astronomy

(Submitted by Jeff Setzer at the July 17th Board Meeting; the following motion was unanimously approved.)

"Whereas the International Year of Astronomy has been designated by the United Nations for celebrating the science of astronomy, and the 400th anniversary of Galileo Galilei's use of the telescope to revolutionize science and human awareness of the nature of the universe...

It is Resolved that the Northern Cross Science Foundation endorses the International Year of Astronomy and pledges to support the Year through local efforts in the spirit of international cooperation."

Mount Graham Observatories

By Rick Kazmierski

While on vacation in the Southwest this past month, Mickey and I visited Mount Graham, near Safford, Arizona. Mickey's brother and his wife (who we were visiting), live several miles from the base of Mount Graham. The mountain boasts three professional observatories., including the Large Binocular Telescope (LBT), the Vatican Observatory (VATT), and the Heinrich Hertz Submillimeter Telescope (SMT).

Large Binocular Telescope (LBT)

On the first night of our visit, we could see the (LBT) standing open on top of the mountain, ready for use from our hosts back porch. The next day we toured the facility. It was the experience of a lifetime!

Soon to be fully operational, the (LBT) will have the light gathering power of a single 11.8 meter (38 ft.) mirror, making it the largest telescope in the world. The (LBT's) ultimate image sharpness corresponds to that of a 22.8 meter (75 ft.) telescope, a direct consequence of its unique binocular arrangement of its mirrors. With the use of adaptive optics (a process by which atmosphere distortion is corrected in real time) the

LBT will literally make the Hubble Space Telescope obsolete!

While on the tour, we got to see the (LBT) adjusted in latitude during a test of new software, allowing us a direct view of the mirrors. All I can say is "WOW"! We also got to view the control room and I was privileged to discuss Cosmological theory with an astrophysicist on assignment from Belgium. I actually understood most of what he was talking about. His specialty was Globular Clusters.

Vatican Observatory (VATT)

Part of our tour included a visit to the Vatican Observatory, which shares the mountain with the (LBT). This facility houses the 1.8 meter Vatican Advanced Technology Telescope (VATT), operated by the Vatican Observatory Research Group.

Our tour of this facility included the main telescope, the working mechanism of the dome and telescope, the Astronomer's living quarters, and the main control room. I was actually able to sit at the control station, looking really out of place surrounded by all

(Continued on Page 4)

July Meeting Minutes

By Kevin Bert

The July business meeting of the Northern Cross Science Foundation was held at the Unitarian Church North in Mequon. President Joyce Jentges opened the meeting at 7:35 pm and welcomed over 14 members and guests. She then asked for standard reports.

The treasurer was not in attendance.

Secretary Kevin Bert gave one final plug for the National ALCon Expo 2008 convention. A show of hands, or lack thereof, made it apparent that no members were planning on making the trip. The general consensus was that the price was too high. It was all set into perspective from the bargain we had hosting the regional convention.

Observatory Director Dan Bert reported that the July 11th Public Viewing Night would have an Observatory training session at 7:00 pm. A leader was needed for the 12th PVN as Joyce Jentges had been slated to assist. Jeff Setzer stepped up to the plate and accepted to be leader.

Under old business Joyce was happy to see that Bayshore is considering a large donation to the Northern Cross for the work we have been willing to do at the mall. More details about that will come next month. Additional nights have been in conversations and they have yet to be confirmed. They are July 27, September 10 and October 8.

Under new business Joyce gave a list of upcoming events. She made reference to the registration forms for August 1 - 3 Northwoods and the September 26 - 28 Always Looking Up star parties. She further hoped to see more members attending Public Viewing Nights at the Observatory. She reminded Observatory Operators that part of the privilege of using the facility is that you would sign up for at least one Public Viewing Night as a leader or assistant per year. Additional help with supporting telescopes in the parking lot or next to the Observatory are needed more than ever to help with

the larger crowds we routinely see at these events.

Jeff Setzer gave a detailed overview of next year's big event, the International Year of Astronomy, (IYA). It is a worldwide celebration of astronomy and the 400th anniversary of the use of the telescope. This United Nation's effort will run the entire year with a number of special events and projects to promote astronomy and show how it both changes the way we look at things and how it bridges indifferences between us with one common interest. The NCSF will be joining in on the IYA activities and we will start planning which ones fit our club. Jeff will be the chief organizer of our efforts. A lot more information about IYA will be presented in the near future. With no further new business, Joyce closed the business meeting at 8:35 p.m

Things to See In the August Night Sky

By Don Miles

Mercury, Saturn & Venus: Venus will be the brightest of the bunch, and will give you a target to find the other planets. The trio will form a tight group on the 15th, and then slowly separate in the following weeks.

Mars: Is at its highest in the southwestern sky at sunset, and sets almost due west before 10:30pm early in the month, and by about 8:30 later in the month. Look for an orange/yellow "star" below the middle of the constellation Leo early in the month, but will continue its eastward movement into the lower-right section of Virgo.

Jupiter: Is already fairly high in the sky early in the month, and will set about 4:30am. Later in the month, Jupiter will set by about 2am. Look up and slightly to the left of the "handle"

in the teapot of Sagittarius (lower in the southern sky). Jupiter will remain pretty close to the same relative position throughout the month.

Uranus & Neptune: Still both visible using a telescope and a good finder chart highest in the south early in the morning. Look for Uranus in Aquarius, and Neptune in Capricornus (they're in relatively the same position as last month, and will be in the same relative position next month).

Moon:

August 1st: New Moon
August 8th: First Quarter
August 16th: Full Moon
August 30th: Last Quarter

Meteor Showers: The Perseid showers will peak the morning of the 12th. If the sky cooperates, look for them a couple

of days before and after the peak. The skies will be darkest from about 1-4am as the moon will have already set. If you have dark conditions, you may see one meteor per minute. (Take warm clothes or even a blanket to stay comfortable, and don't forget the bug repellent). Enjoy the show.



August Meeting

By Editor

There will be no 101 class this month.

This month's general meeting will start out with "Constellation of the Month", followed by a discussion regarding purchase of a Coronado 90 mm Solar Telescope. This scope would be an exciting addition to our Club's equipment.

The General Program will be presented by Jeff Setzer and will center around a discussion of the 2009 "International Year of Astronomy" and our Club's local involvement.



Public Viewing - July 11

By Dan Bert

The weather was ideal for an observing night on July 11. My Dad, Kevin, and I lead the event and were joined by members Jeff Setzer and Harvey Sherman. No members were in attendance for the pre-observing training session. An estimated 65 people attended the Friday event, a good portion of the early crowd being a Scout troop. All enjoyed views of the Moon, Saturn, Jupiter and its moons, the Ring and Dumbbell nebulae. Handouts to distribute of this month's Skymaps.com chart were printed out using the club's new laser printer. The optical cooling system was also tested. This month there will be 3 public viewing nights. If you have not had an opportunity to help with a viewing night or lead an event please consider doing so.

Observatory Notes

By Dan Bert

Each year Harrington Beach State Park will ask our group to submit information on the number of volunteer hours we put in at the park to include in their report to the State. It is important that leaders at the observatory make sure to complete the NCSF event volunteer participation form. This provides me with the number of volunteer hours per individual for the event. In addition to completing this form, also note the event in the observatory log book. Please make sure to log the start and end time along with estimated number of public in attendance. Thank you for your help.

The club has purchased a laser printer for printing handouts. The printer is currently kept underneath the table on the north wall of the observatory in a protective container. Future plans include a permanent computer at the observatory to use for printing handouts capturing astrophotography images etc. Stand by for more details. If we are running low on any handouts please let me know.

Jim and Gwen Plunkett Observatory



Observatory Director:
Dan Bert: 262-375-2239

Perseid Earthgrazers

Meteor hunters will begin their watch early, on Monday evening, August 11th, around 9 pm when Perseus first rises in the northeast. This is the time to look for "Perseid Earthgrazers", meteors that approach from the horizon and skim the atmosphere overhead like a stone skipping across the surface of a pond.

"Earthgrazers are long, slow and colorful; they are among the most beautiful of meteors," says Cooke. He cautions that an hour of watching may net only a few of these at most, but seeing even one can make the whole night worthwhile.

- Bill Cooke NASA Meteoroid Office

CURRENT CLACK

Leaders for Public Viewings

August 8 & 9

Leaders Needed

August 23

Leaders: Gene & Charlotte DuPree

August 31

Leaders Needed

September 5 & 6

Leaders Needed

Members Night

August 29 & 30

Open

Star Parties

Northwoods Starfest

August 1 - 3

Fall Creek, WI

www.cvastro.org

Astrofest

September 5 - 7

Vana's - Kankakee, IL

www.chicagoastro.org

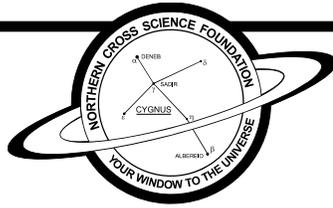
Twin Lakes Star Party

September 27- October 5

Dawson Springs, Kentucky

www.wkaa.net

SPECTRUM
5327 Cascade Drive
West Bend, WI 53095



2008 OFFICERS

President—Joyce Jentges
102 N. Montgomery St. Apt #1
Port Washington, WI 53074
920-254-6705
joycejentges@hotmail.com

Vice President - Jeff Setzer
1418 Trillium CT
West Bend, WI 53095
262-338-8614
astrosetz@hotmail.com

Secretary - Kevin Bert
2292 Ridgewood Road
Grafton, WI 53024
262-375-2239
kevin.bert@hotmail.com

Treasurer - Gene DuPree
6219 Jay St.
Myra, WI 53095
262-675-0941
grdupree@charter.net

Other Board Members:

Rick Kazmierski
262-675-0488

Don Miles
262-675-2796

Al Steinberg
262-644-8089

Newsletter Editor & Publisher

Rick & Mickey Kazmierski
262 675-0488 / rickkaz@charter.net

that technology.

Submillimeter Telescope (SMT)

Although less familiar than the optical telescopes, the (SMT) proved to be quite fascinating. We were able to stand at the base of it's 10 meter surface and actually touch the telescope. We had never seen a radio telescope up close and personal before.

The Arizona Radio Observatory owns and operates the (SMT) and a second 12 meter radio telescope located on Kitt Peak (another location we visited on our vacation!). Combined, these two telescopes routinely cover the entire millimeter and submillimeter windows from about 4.6 mm to about 0.6 mm. SMT observations can be made all the way to 0.3 mm with added instrumentation.

The accompanying photo shows Mickey and I set against the (LBT) in the background.



Monthly Meeting Location
Unitarian Church North
13800 N. Port Wash. Rd.
Mequon, WI 53097

SPECTRUM

Is published by the Northern Cross Science Foundation, Inc. A nonprofit organization based the state of southeastern Wisconsin and is a Member of the North-Central Region of the Astronomical League.



The NCSF supports the International Dark sky association.



Send inquiries to:
SPECTRUM
5327 Cascade Drive
West Bend, WI 53095

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