

# SPECTRUM

Northern Cross Science Foundation Newsletter

June 2012

## LOOKING UP

**June 5, Tuesday**

**Venus Transit**

**4:30 - Harrington Beach**

**4:30 - Pike Lake**

**June 7, Thursday**

**General Meeting**

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to follow

**June 9, Saturday**

**Public Viewing**

8:00 p.m.

Pike Lake

**June 21, Thursday**

**Board Meeting**

7:30 p.m.

Home of Jeff Setzer

**June 27, Wednesday**

**Sidewalk Astronomy**

7:00 p.m.

Bayshore Towne Center

**July 5, Thursday**

**General Meeting**

7:00 p.m. - Astronomy 101

7:30 p.m. - Main Program

Business Meeting to follow

## **Bayshore Sidewalk Astronomy - First Night...by Jeff Setzer**

For our first Bayshore Sidewalk Astronomy night of the year has overcast skies for most of the day. General weather forecasts called for flat-out cloudy skies through the rest of the night, but the Clear Sky Charts for Milwaukee and surrounding communities persisted in saying it would be clear before sunset and mostly clear that evening. I got an email from Bayshore at 2pm asking if the event was still on, and I decided to trust (hope!) that the CSC was right. Arriving around 5:30pm it was still overcast, but some thinning to the west. By the time I set up the Celestron Classic 8 and got Carol set up with handouts, the skies were mostly clear and the slightly gibbous Moon presented a wonderful target for our 7pm start. Don Miles came with his 10" Dob, and both of our telescopes were trained on the Moon until I picked up Saturn in the twilight and high thin clouds. Clouds mostly stayed out of the way, and no objects obscured completely for more than one or two minutes at a time.

We noticed there were not as many people at Bayshore that night than there normally is.

Sidewalk traffic was lower volume but it actually picked up after 8pm. We showed the Moon, Saturn and Mars to about 80 people. Some were quite emotional...one man said "I'm 64 years old and I've never looked through a telescope; now I've seen the rings around Saturn! Thank you!" I'm glad we didn't call it off that afternoon.

Our next Bayshore Sidewalk Astronomy event is June 27. It would be very helpful if more than two telescopes were set up, as with the warmer weather the crowds should be back to normal. Even with the much smaller number of people at Bayshore on May 30, we still had in the neighborhood of 60-80 people stop and look.

Bayshore Town Center has generously donated thousands of dollars to the NCSF each year we've done these events. They are supporting us; these events are your opportunity to help us do right by that support, in addition to doing very good outreach. Please help us out at these events. Contact me for details ([astrosetz@astrosetz.com](mailto:astrosetz@astrosetz.com)).

## **SpaceX Makes Historic Mission to ISS...NASA**

A SpaceX Falcon 9 rocket thundered into space and delivered a Dragon cargo capsule into orbit on May 22, 2012. The launch began an ambitious mission to show that the company is ready to deliver cargo to the International Space Station.

"We're now back on the brink of a new future, a future that embraces the innovation the private sector brings to the table," said NASA Administrator Charles Bolden. "The significance of this day cannot be overstated.

Working with an instantaneous launch window, SpaceX, short for Space Exploration Technologies of Hawthorne, CA, proceeded through a flawless countdown. Liftoff from Space Launch Complex-40 at Cape Canaveral Air Force Station in Florida came at 3:44 a.m. EDT, just as the station was crossing 249 miles above the North Atlantic.

"Every bit of adrenaline in my body released at that moment," said Elon Musk about the mo-

ment the rocket lifted off the pad. Musk is the founder, CEO and chief designer of SpaceX.

The launch came three days after the rocket aborted a previous launch attempt. William Gerstenmaier, NASA's associate administrator for Human Exploration and Operations Mission Directorate, lauded the company for getting the craft ready for the successful launch.

Dragon carried about 1,200 pounds of supplies for the crew of the station and experiments designed by students. The spacecraft can hold 7,300 pounds of material for delivery to the station, but since this was a test flight, the manifest was limited to important but not critical materials. Food and clothing make up the bulk of the supplies.

The launch put the Dragon on a course to rendezvous with the space station. On May 25<sup>th</sup>, a detailed series of navigation and other systems tests were performed in space allowing the capsule to move close enough (Cont. on Pg 4)

## May Meeting Minutes

By Kevin Bert

The May Business meeting of the Northern Cross Science Foundation was held at Unitarian Church North. President Jeff Setzer opened the meeting at 8:15 pm and welcomed 26 members and guests. Jeff then asked for standard reports.

Treasurer Gene DuPree reports that the balance in the checkbook was \$9,630.46.

Secretary Kevin Bert reported that all members should have gotten their membership and asked the members to look over their roster information and contact him if any corrections are needed. The Astronomical League has been updated with the latest roster for mailing the Reflector. Jim, Pacha and Tyler Grissom became members that evening. A discussion on the Astronomical League National Convention, (ALCon), and our regional convention, (NCRAL), on July 4 – 7 in Chicago followed. June 1<sup>st</sup> is a deadline for low registration prices. Our own Paul Gruener will give a presentation at the Midwest

Astro Imaging Conference that is held in conjunction with ALCon.

Observatory Director Dan Bert reports that leaders are scheduled for the May 26 & 27 events at Harrington Beach. Spring loaded castors will be added to the tall ladder by those events to ease the movement from side to side.

Under old business, Jeff reports that his astronomy class at Moraine Park in West Bend had completed and was a success. The observing mound project has officially been dropped due to escalating costs.

Under new business Aris Penikis reported that he had the pleasure of addressing senior groups on April 5th and 12th. His astronomy program was well received. Jeff continued with a list of upcoming NCSF events. May 12<sup>th</sup> at 7:00 pm is the Small Scope Star Party (SSSP), at Harrington Beach. May 20<sup>th</sup> is a partial solar eclipse. Saturday May 26<sup>th</sup> is the first Public Viewing night of the spring. The following day is our Astronomy Day with daytime activities at the Port Washington Street Festival and Observing at the Jim & Gwen Plunkett Observatory in

the evening. May 30<sup>th</sup> is the first Sidewalk Astronomy at Bayshore. June 5th is the historic Venus Transit. Club members will be set up at Harrington Beach and Pike Lake for viewing. With no further business Jeff closed the meeting at 9:10 pm.

### Jim and Gwen Plunkett Observatory



Observatory Director:  
Dan Bert: 262-375-2239

## Things to See In the June 2012 Night Sky By Don Miles

**Mercury:** Starts the month still on the "front side" of the Sun too close to the Sun to be seen, but after about mid-month, will be viewable an evening object. It will still be close to the Sun, but viewable (mag - 0.3), and by the 30<sup>th</sup>, will have moved as far away to the East of the Sun as it can (greatest eastern elongation). After that, it will slide back towards the Sun again, on its way around the "back side".

**Venus:** Is going to be too close to the Sun to be viewed this month as it passes on the "front side" of the Sun...except the evening of the 5<sup>th</sup>. Only then will it be visible as a silhouette for a couple of hours as it crosses the face of the Sun (transit). **\*\*This will be the last transit of Venus in any of our lifetimes\*\*.** Even if you could stare at the brilliant setting Sun with the naked eye, you'd miss the tiny "black dot" of Venus. In order to see the transit, you'll need at least a **solar filter**, and a way to magnify the view (even a little), and a way to hold the view still (a telescope **with a solar filter** would work the best). The show will start a little after 5pm, and will continue thru sunset. Going west will give you the longest experience (going a couple of miles won't make a perceivable difference, but if you happen to be towards the west coast of the US, you'll see much more of it). There are numerous web sites giving much more technical info, and apps for smart phones to give you more information than you could imagine (if that's what you're looking for). There will be numerous astrono-

my clubs (ours being just one) across the US setting up equipment to let people safely view the transit. For sure, we'll be set up at Pike Lake State Park, and the *Jim and Gwen Plunkett Observatory* at Harrington Beach State Park. If you're going to be viewing on your own, find a spot with an unobstructed western horizon, and hope for clear skies!

**Mars:** Will be highest in the sky at sunset in the constellation Leo. Look for Mars (mag - 0.7) below the hind legs of Leo the lion, and will continue to drift to the East throughout the month. Mars is highest at sunset, and sets about (2am / 12:30pm).

**Jupiter:** This month Jupiter (mag -1.8) is a morning object rising about (4:30 / 3:30am). The best views will be just before the Sun rises, and will be in the constellation Taurus.

**Saturn:** Rises as the Sun is setting, and will transit around (10pm). Yellowish Saturn (mag. 0.9) is still in the constellation Virgo, and above and to the left of the whitish star Spica by about 5 degrees. The rings are still tilted at an angle to see excellent detail.

**Neptune, Uranus, & Pluto:** Neptune (mag 7.9) rises about (1:30am / 11:30pm) in the constellation Aquarius, and is highest in the sky right before the sun rises. Uranus (mag 5.9) rises in the constellation Pisces about (3/1am), also with the best views right before the Sun comes up. Pluto (mag 14.0) is also highest in the southern sky right before the Sun rises, and hasn't moved any perceivable distance from last year's position.

It's still about 7 degrees above and to the left of the top of the teapot of Sagittarius. Neptune and Uranus are easy to spot using generic charts, but you'll need much more specific charts and at least an 8" scope to pick out Pluto optically.

**Moon:**

June 4th: Full Moon

June 11th: Last Quarter

June 19th: New Moon

June 26th: First Quarter

**Special Events:**

It's hard to top a "once-in-a-lifetime" event like the transit of Venus (mentioned above), especially when the moon will wash out most all the numerous meteor showers, but there will be a couple of showers to watch for. The first are the Ophiuchids. These peak the night of Wednesday the 20th. They are variable showers, ranging from 8-30/hr. There will be no moon to wash out this one. The second shower is the June Bootids. These are another variable shower with peaks rates of anywhere from a few to over one hundred meteors per hour. How many there will be this year...nobody's predicting. They'll peak (low or high) the night of Wednesday the 27th, and will be fighting a first-quarter moon until it sets around 1am.

## May General Meeting

### 101 Class... by Kevin Bert

The Astronomy 101 class for May is entitled

### The Universe Sampler "Recording Observations"

This lesson is taken out of order to give participants the needed information to start the requirements for the naked eye part of the program. Note - taking of some kind must accompany any of the observing clubs. A manual of the Universe Sampler is available for \$10.00.

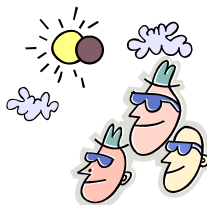
### Main Program...All Club Members

"May 12th Solar Eclipse"

&

"June 5th Venus Transit"

Club Members are asked to bring and share their personal viewing experiences and/or photos of these spectacular two events:



### May Events - (All Astronomy Day Photos were taken by Kevin Bert)

#### Small Scope Party May 12

Reported by Kevin Bert

The 2012 Small Scope Star Party was held on May 12<sup>th</sup> at Harrington Beach. A dozen members turned out 14 scopes by my count and no one was escorted out of the area by the aperture police for exceeding the 6 inch limit. All the scopes were lined up in the parking lot that is adjacent to the observatory. The Sun and Venus were available for inspection between the clouds early. There was a lot of socializing as skies grew darker and more clouds appeared. It was looking to be a total cloud out but a number of substantial openings came over and we were able to look at quite a few objects. Mars was high in the sky but very small. Saturn was quite the sight. Most of the clouds that passed in front of Saturn did not distort the view, but only dimmed the image. It is nice to see the rings opening up. Solid clouds came in late and finally put caps on the scopes for good. The remaining crew had snacks in the adjacent picnic shelter.

#### Public Viewing May 19

Reported by Charlotte DuPree

At Pike Lake, partly clear/cloudy skies greeted about 50 campers Venus looked nice as did Saturn and Mars. Gene and Charlotte DuPree, Jeff Setzer and Carol Nelson helped Al Steinberg with this program.

#### Public Viewing May 26

Reported by Kevin Bert

Dan and Kevin Bert opened the Jim & Gwen Plunkett Observatory for a Public Viewing Night but the roof remained closed. The skies were cloudy and rain appeared several times. Five campers did check out the facilities and said that they would return Sunday to look through telescopes.

#### Astronomy Day - Street Festival

May 27

Reported by Joyce Jentges

Weather was glorious for Port Washington's Annual Street Festival, in the 80's and at times even a bit chilly. The sun provided ample op-

portunity for solar viewing and we had four solar scopes set up. Those who were manning the scopes stayed busy with a steady stream of people wanting to look at the sun. We gave out lots of hand outs and hope that this will translate into more attendance at the observatory.



Astronomy Day - Street Festival in Port Washington



Astronomy Day - Harrington

#### Astronomy Day - Harrington Beach

May 27

Reported by Charlotte DuPree

At Harrington Beach we had a steady flow of 75 visitors, including campers and the public that saw us at the Port Washington street festival. We looked at the Moon, Saturn, Mars, and Venus. With the big scopes we saw M65, 66, 51, 13, 3 and M57. Thanks to Al, Jeff, Joyce, Kevin, Dan, Carl, from Gene and Charlotte for helping out.

## RELATED INFO

### NEW MEMBERS

#### NCSF Welcomes New Members

Jim Grissom

Tyler Grissom

Pacha Grissom

#### Leaders for Public Viewing

##### June 3

#### Harrington Beach

Gene and Charlotte DuPree

##### June 5

#### Harrington Beach

Kevin and Dan Bert

#### Pike Lake

Al Steinberg

##### June 9

#### Harrington Beach

Al Steinberg

##### June 27

#### Bayshore Towne Center

Jeff Setzer

### STAR PARTIES - 2012

#### NCRALVALCon2012

July 4 - 7th

Chicago, IL

[www.alcon2012.astroleague.org](http://www.alcon2012.astroleague.org)

#### Wisconsin Observers Weekend

July 19 - 22nd

Hartman Creek State Park

[www.new-star.org](http://www.new-star.org)

#### Northwoods Starfest

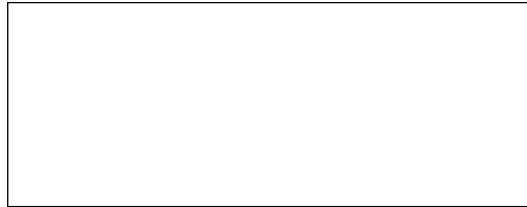
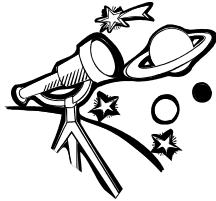
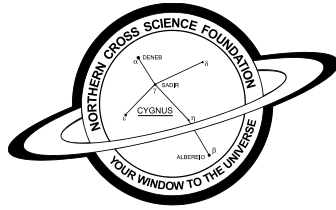
August 17-19th

Hobbs Observatory

Fall Creek, WI

[www.cvastro.org](http://www.cvastro.org)

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(Cont. from Pg 1) to the station for astronauts to grab it with the robot arm and connect it to the Earth-facing port of the Harmony module.

Less than 24 hours after the Dragon capsule docked with the International Space Station, astronauts opened the hatch and floated into the first private spacecraft to ever reach their orbiting outpost. NASA astronaut Don Pettit said there was something familiar about the Dragon capsule. "The smell inside smells like a brand new car," described Pettit, as he inspected the vehicle.

The Dragon remained connected to the station for about a week, allowing astronauts to empty it before loading used scientific equipment inside for the return to Earth. Reversing the process of connecting the spacecraft to the station, astronauts used the robotic arm to remove the Dragon capsule. The Dragon de-orbited and returned to Earth under parachutes, splashing down in the Pacific Ocean off the California coast.

Triumphant from start to finish, the Dragon capsule parachuted into the Pacific on Thursday, March 31st, concluding the first private delivery to the International Space Station and inaugurate NASA's new approach to exploration.

### Solar Viewing for Kids...by Kevin Bert

I had the chance to visit Zion School in Menomonee Falls on April 5<sup>th</sup> and set up two telescopes for grades 1 – 4 to get their first look at the sun. My daughter Amy teaches 1<sup>st</sup> grade there and made the needed arrangements. It is a short drive for me from work so I got the ok to take a long lunch break. The sky remained clear and I set up just off of the parking lot on the grass. The Coronado displayed some nice prominences and my solar Dobsonian highlighted groups of spots. The welding filter plate and eclipse glasses got them in tune for the views to come in the scopes. A few of the younger kids had some difficulty viewing but I believe all of them ended up seeing the sun. There were about 50 kids in all. Some nice thank you letters from the first graders were presented to me the following week. I will share some of them at the next meeting.

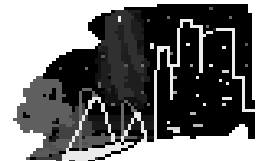


## SPECTRUM

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<http://www.ncsf.info>

Our club has a "Discussion Group on Google"  
Website: <http://www.ncsf.info/> for details

