

- [Home](#)
- [Blog » »](#)
- [Projects » »](#)
- [Chuck Stuff » »](#)
- [Contact](#)

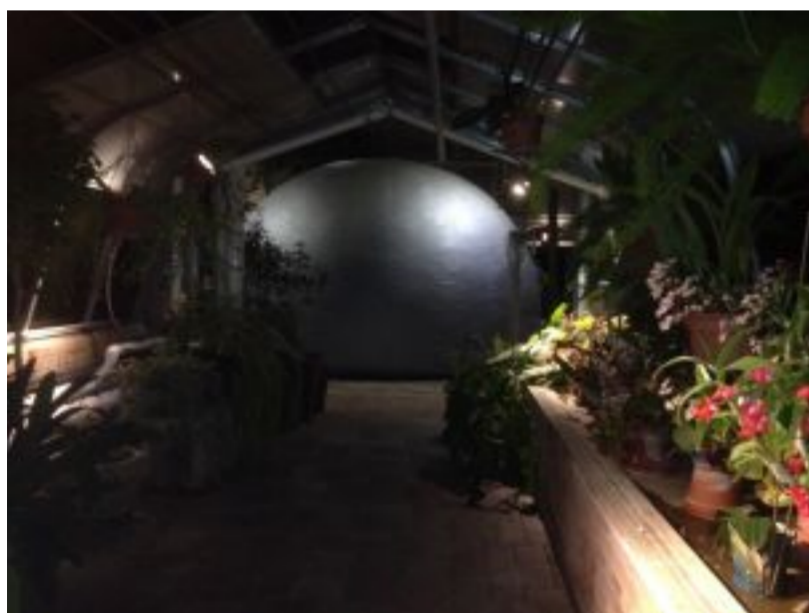
$E=mc^2$

[Home](#) > [Blog](#) > Welcome Spring

Blog

Welcome Spring

Posted by admin on March 25, 2014



After a long winter in the Midwest, a unique celebration welcomed the vernal equinox with spring stars, astronomy activities, and lush tropical plants.

The [South Bend Adventure Club](#) hosted a *Tropical Overnighter in the Greenhouse* at the [Potawatomi Conservatories](#), where the fragrance of fruit plants and abundant greenery contrasted with the grays of winter. The winter constellations segued into spring under a portable planetarium, with Polaris anchoring the north as we spun through time.

If you are considering hosting a similar event, the template below hints at the astronomy components that supported the spring fling, as well as some activities that were ready in the wings.



Outdoors

The intent of the Tropical Overnighter was to celebrate spring, so it was scheduled the day after the vernal equinox. Had we enjoyed clear skies we were going to venture outside to photograph the sun against foreground landmarks.

A [scale model](#) of the solar system used the 50-foot dome of the conservatory to simulate the sun, with the rest of the planets plotted on a local map. Earth would be a mere 5 1/2 inches across. Anyone want to walk to Mercury and back before dinner?



We had solar-filtered telescopes, a hydrogen-alpha telescope, and a [Sun Funnel](#) ready to gaze at the sun. Alas, it really *was* like the spring, with clear skies midday but clouds in the evening. The telescope was relegated to the role of eye candy.

Arrival

It was cathartic to walk into the warm, humid greenhouse. However, telescopes that had been poised outside in the cold but brought inside because of clouds suddenly became indoor platforms for moisture. It made the scope unusable for awhile, but opened up a quickie lesson in condensation.



After groups unloaded sleeping bags and gear like kids checking into summer camp or doing an overnighter at a friend's, quick strides through the greenhouses set the stage as newcomers got the lay of the land.

Food and fun opened the event, with a potluck dinner satisfying all tastes and diets. Later in the evening the intrepid ones with a sweet tooth made s'mores over a Sterno flame. Had it been sunny I was going to try making micro s'mores with solar power by having them burn miniature marshmallows with a telescope aimed at the sun.

Ricehenge

To complement the main meal near the vernal equinox, I made a model of Stonehenge ([image](#)) from Rice Krispies Treats™, an idea inspired by Gene Zajac's original Ricehenge ([image](#)).

If you have time for accuracy, project an image of the Stonehenge layout onto a large cake tray and mark the upright stones. Be sure to denote north, too. Wear food service gloves for handling the dessert so guests can snack on it later. In haste I bought pre-made treats. Each packaged treat divides into two uprights and a cross beam for the outer circle. After you've got the major upright stones placed, distribute the scraps in the place of toppled stones.

Observatory Tour



Indiana University-South Bend (IUSB) recently installed a new observatory atop the roof of a nearby campus building. An announced feature of the Tropical Overnigher included a side trip after dinner for the inaugural public tour, a short walk away. Professors Jerry Hinnefeld (shown) and Henry Scott of the [IUSB Physics and Astronomy Department](#) were on hand to introduce guests to the equipment, featuring a Meade LX200-ACF Schmidt-Cassegrain telescope on a Paramount ME robotic mount. Due to overcast skies they showed digital images they had captured on previous clear nights.



Starfruit and Sundial

I had planned several activities for indoors that took advantage of the conservatories themselves. One was a limited treasure hunt that included the starfruit, or Averrhoa carambola. Per a conservatory [info sheet](#),

"The plant is named for Averroes, a 12th century Arabian physician and philosopher. Carambola is a native word for the fruit of this plant...The leaflets are sensitive to both light and touch. They fold up at night or if they are touched, similar to the mimosa plant. These rapid responses to external stimuli are due to turgor (water pressure) changes. This may be a protective mechanism against insect herbivores."



Also within the greenhouses was an old sundial that honored a deceased patron. A decorative element included an hourglass flanked by wings, suggesting "Time flies."

When I had visited the site earlier in the week I noticed the gnomon was not pointed anywhere near north, as is common in the placement of most decorative sundials and armillary spheres. Of course, the gnomon wasn't of the correct angle for that latitude, either. However, when informed about the erroneous alignment, staff member Heidi kindly corrected the shortcoming on the spot and swiveled the base so the gnomon approximated the earth's pole. The diffuse

glass panes of the greenhouse make any sundial non-functional inside, but this one was now ready to be used as another vernal equinox prop.



Astronomy of Spring



A central area that is popular for weddings inside the greenhouse became the staging ground for a portable planetarium. It was certainly the most fragrant air I've ever had within an inflatable dome. We symbolically threw a handful of sand skyward to bring up the visible stars, then segued from winter to spring and on to summer. If we had had more time, I would have projected the sun to trace out the sun's diurnal path through the solstices and equinoxes.

Because all visitors were there for the overnigher, they had the option of bringing pads and pillows inside the planetarium. Some people chose to linger for awhile inside with the stars on a minimal drift, and others revisited the dome at their leisure late into the night. It was a private party, so adult beverages were permitted.

Keeping with the theme of spring astronomy, I made plans to announce the forthcoming [Tax Day Eclipse](#), a total lunar eclipse visible from the U.S. on April 15, 2014. While no public gathering was in the works, since the moon wouldn't enter the umbral shadow until almost 2:00 a.m. EDT, it was conceivable someone would look from the comfort of home.

The earth casts two shadows--a small dark umbra and a faint outer penumbra--because the sun has some dimension to it, as opposed to being a point source of light. For a greenhouse demonstration I packed supplies to do the [Lunar Eclipse Shadows](#) activity, which shows the dual shadows even though in reality the penumbra is difficult for most people to discern.

If we had been outside at night, I certainly would have done this activity using two headlights from my car rather than the dual worklights.

Mars, Saturn, Moon





Weather changes, and by 3:00 a.m. a hole had opened in the clouds. If we scrambled, the latenight crowd who was still awake could see an astronomical trifecta--Mars, Saturn, and the moon in a row above the southern horizon. So we did.

The eye-candy telescope, no longer damp, was pressed back into service. Mars was bright but muddy in the thick atmosphere; Saturn never disappoints; and the magnified moon was its stunning self. A cold wind and encroaching clouds shortened the observing session, but for those with fortitude it was an impressionable sight.

Flare at 7:38 a.m. EDT



Another favorite observing activity with a group is an Iridium flare, for which you get predictions at Heavens-Above.com. Fortunately one was slated to pass at a more reasonable hour, and the centerline was very near the conservatory's location. It was going to be brilliant.

I always like to tell a group that they have the collective power to conjure up an apparition in the sky if they'd only work together as a team. At the appointed time with everyone gathered, I insist they all start humming. Louder, hum louder! Surprisingly, a group will often obey your command to do something stupid if you speak with authority or conviction (see famous psych experiments).

Alas, it was overcast again, so most people who woke up merely looked skyward through the glass to see clouds and went back to sleep.



Benefit for AstroCamp



Admission to the Tropical Overnighter was only \$15.00, with about 30 people signing up. The proceeds were distributed among the Potawatomi Conservatories, the organizing South Bend Adventure Club, and AstroCamp. AstroCamp is a week-long astronomy camp affiliated with YMCA Camp Eberhart in Three Rivers, MI, at which kids aged 9-13 learn the night sky constellations and get their hands on telescopes to find deep sky objects.

Most of the promotion for this inaugural overnighter had been coordinated through social media like a Facebook Event with reservations taken through Eventbrite. The potluck dinner kept costs low, everyone contributed to cleaning up afterward, and a respectful crowd attended.

In the morning, for an additional \$5.00, you could join a yoga session in the main room where the portable planetarium had been set up. People from our group and outsiders alike attended that add-on.

For future reference I would do this again in the spring, when the allure of being among tropical plants amidst uncertainties of spring weather (and in 2014 on the heels of a harsh winter) is high. Keep the crowd size limited. And personally I'd prefer it be an adults-only event. If you're organizing a comparable event, I ask you to share your original ideas so we can improve ours as well.

Thanks go to the Potawatomi Conservatories and its staff for hosting this fun introduction to a community resource I had not visited before; to Willow Wetherall for organizing the event so efficiently; and to the fun participants who stepped up with food, beverages, conversation, and appreciation for the natural world.



[« Previous](#)

[Next »](#)

▼ 2014

- ▶ October
- ▶ September
- ▶ August
- ▶ July
- ▶ May
- ▶ April

▼ March

[Sun Funnel](#)

[Welcome Spring](#)

[2014 Michiana Star Party](#)

[Conservatory to Observatory](#)

[Lunar Eclipse Shadows](#)

[Landing at the Wrong Airport](#)

[South Bend is good. Honest.](#)

[Tax Day Eclipse](#)

[Time Stamp-March 2014](#)

[Green Things From Space](#)

[Spring Forward](#)

[Overnight in the Greenhouse](#)

- ▶ February
- ▶ January
- ▶ 2013
- ▶ 2012

Tags



© 2014 Nightwise.org. All Rights Reserved. Currently logged in as **admin**. [Sign Out](#)

Design by [c5mix](#) | Powered by [concrete5](#)