Coming Up At The Observatory....

FOTO Monthly Meeting, Aug 2, 7:30p
FOTO Kids & Teens, Aug 3, 8:30p
Sundials & Timekeeping, Aug 4, 12p
Late Night @ the COC, Aug 4, 10:30p
Intro Class for Members, Aug 8
Astro Thursday, Aug 9, 8:30p
Astro Friday, Aug 10, 8:30p
Stonelick Stargaze, Aug 11, Dusk
History Tours, Aug 12, 1-4p
A2Z Astro Class, Aug 12, 7p
Picnic Under Stars, Aug, 12, 7-10p
Stargazing 101*, Aug 14, 8p
Astro Thursday, Aug 16, 8:30p
Astro Friday, Aug 17, 8:30p
Stonelick Stargaze, Aug 18, Dusk
Planning Meeting, Aug 23, 6p
Astro Thursday, Aug 23, 8:30p
Astro Friday, Aug 24, 8:30p
Lincoln Ridge Stargaze, Aug 25, Dusk
History Tours, Aug 26, 1-4p
Astro Thursday, Aug 30, 8:30p
Astro Friday, Aug 31, 8:30p
FOTO Monthly Meeting, Sept 6, 7:30p
Future Galileo Awards, Sept 7, eve
ScopeOut!, Sept 8, 12-10p

The Word

By Dale Zoller

ScopeOut 2012, the Observatory’s annual astronomy, science and education fair will be held Saturday, September 8, 2012 at the Observatory. One of the Observatory’s signature events, ScopeOut features family-friendly activities designed to promote astronomy and related sciences. There will be a kids’ tent featuring astronomy art and making dry-ice comets.

We will have solar viewing through the Mitchel telescope using special filters and solar energy displays. The University of Cincinnati Physics Department will have a cosmic ray detector (“cloud chamber”) and other hands-on physics demonstrations. Returning this year will be the “meteorite hunt” for kids.

We will have vendors and exhibitors in the big tent including Burgess Optical, iSpace, Mars Society, the “NASA Collection” from the University of Cincinnati Libraries, and many others. During the afternoon there will be a variety of astronomy-related talks on subjects from the Curiosity Mars lander to fighting light pollution.

We are honored to have Dr. Pamela Gay as our keynote speaker. Dr. Gay is an astronomer, educator, podcaster and writer. She was a co-founder of Slacker Astronomy and is a co-host of Astronomy Cast. Her talk is titled “Seeing Yourself in Science.” Her presentation will follow the dinner (reservations required – contact the Observatory office). We will have night-time viewing through the historic telescopes after the keynote talk (weather permitting).

One of the great things about astronomy is that it incorporates all of the STEM disciplines emphasized in today’s school curriculum. Please tell your family, friends, co-workers, etc. about ScopeOut 2012. It’s a great way to introduce children (and adults) to the wonders of the universe.

Did You Know....

To the early Greeks the Sun and the Moon were considered to be planets.
FOTO Kids and FOTO Teens

By Dean Regas

Our next meeting will be Friday, August 3, 8:30 pm at the Observatory. The stars of summer will be our focus as we zoom in on Scorpius and Sagittarius as well as the Summer Triangle. We’ll test the clarity of the skies to try to find Dean’s favorite, tiny constellation, Delphinus the Dolphin. The Dolphin is an elusive constellation that’s hard to see in the city haze but if conditions are right, we just might be able to spy it jumping out of the cosmic ocean.

If you have any questions about this or any future meeting please email Dean Regas at dean@cincinnatiobservatory.org

ScopeOut 2012 Planning Meeting

By Dale Zoller

ScopeOut 2012, the Observatory’s annual astronomy, science and education fair will be held Saturday, September 8, 2012 at the Observatory. As always, we need FOTO volunteers to help with registration, parking, raffles, telescopes, dinner, gift shop, etc. Pre-registered volunteers will have their ScopeOut entry fee waived (there is still a charge for the dinner & speaker). We will have sign-up sheets available at the August FOTO meeting. Help is needed in the afternoon (there will be two shifts – 12-2:30 and 2:30-5pm) and with the evening viewing. We also need volunteers to help set up on Saturday morning and clean up on Sunday morning. Whether you are a member who has helped out in the past or a new member looking for a way to get involved with the Observatory, please consider volunteering for ScopeOut 2012. If you wish to volunteer but cannot attend the August FOTO meeting, please contact Dale Zoller at dale.zoller@fuse.net as soon as possible. Remember, it is our volunteers that have made ScopeOut a success over the years!

2012 FOTO Elections

By Dale Zoller

At the August 2, 2012 FOTO meeting we need to establish a nominations committee for the election of FOTO officers and trustees scheduled for October, 2012 FOTO meeting. Nominations for the positions are to be presented to the membership at the September, 2012 meeting. If you would be interested in working on this committee, please contact John Blasing at blasing@fuse.net or meet with him at the FOTO meeting on August 2nd.

FOTO's August Meeting

By Dave McBride

Our August program will be presented on August 2nd at 7:30 pm in the west wing of the Herget Building, by FOTO member John Blasing.

His topic will be The Permittivity & Permeability of Free Space - Their Meaning and Measurement.

This presentation is an introduction to two fundamental properties of the universe - permittivity and permeability - including an experimental measurement of permittivity following the meeting break. John will show at the conclusion of the presentation that these two properties, taken together, determine yet another universal constant: the speed of light.

The topic for future meetings is still in development. It has been quite some time since the program committee has hosted a “member’s night” of brief presentations given on special interest topics by our members. This is the occasion where several presentations that are about 10 to 20 minutes in length are combined for the evening’s program. If you would like to speak on a topic that would be of interest during a meeting, please let one of the committee members know about it.

For example, you may have an interesting story about the recent Venus transit, an explanation of how the clear sky chart works, a demo of RegiStax software, a talk about your favorite citizen science project, your method for easy scope collimation or scope building project, your favorite web resources and how they help you, a report about an astro book others would enjoy -- all topics of interest to others. Contact Tom East (animastra@gmail.com), Dave McBride (SETI@cinci.rr.com) or any FOTO Program Committee member to participate.

Mars Lander

As Curiosity nears Mars for a daring landing on August 5/6, NASA has released a suite of video games and virtual experiences for members of the general public who wish to follow the massive rover across the sands of the Red Planet. http://science.nasa.gov/science-news/science-at-nasa/2012/16jul_daring/

Did You Know....

The great Red Spot is in the southern hemisphere of Jupiter but rotates counter-clockwise indicating it is a high pressure spot, not low pressure.
July FOTO Meeting Highlights

By Dale Zoller

On Thursday, July 5, FOTO held its annual Summer Cookout & Picnic in lieu of the regular monthly meeting. FOTO provided the grills, drinks and condiments, while those who attended brought desserts and side dishes to share.

Despite the heat, nearly 40 FOTO members attended and a good time was had by all. FOTO vice-president Becky Shundich ordered a cake with a picture of the original Observatory to celebrate the 20th (or 21st) anniversary of FOTO. No official business meeting was held.

Stargazing at Stonelick State Park

By Craig Niemi

Saturdays, August 11 & 18

Been too hot for you during the day? Then cool off under the night skies while exploring the heavens. Open to all ages. Bring your own scope for expert help setting it up. Stargazing begins at dusk.

Stargazes are weather permitting. “Friend” the Stonelick Lake Stargazers Facebook page for weather and schedule updates.

Did You Know….

Stars do not form singly or in pairs, but in bunches.

A2Z+ Astronomy Class

US Naval Observatory Data Services

By Dave Bosse

Almost all research Astronomy these days is based on the analysis of data. The largest telescopes in the world become not much more than photon counters. Very complex, incredibly accurate, high-resolution photon counters to be sure, but you can’t look through them! What fun is there in that? Well, I have to admit, I do get a bit of a charge out of gaining a little understanding from toying with some numeric description of some phenomena or another.

This month’s A2Z+ Astronomy class will focus on data, specifically the data that is available, over the net from the US Naval Observatory. Programs that run on personal computers or tablets and even phones like Starry Night, Star Walk, or Stellarium can do a real nice job showing us where things are in the sky and even report positional data to great detail. Getting this data into a workable form from these programs is next to impossible. On the contrary, the USNO Data Services supplies such data in a variety of formats and definitions, and can be easily processed. I might be a little off, but this sounds like fun!

Come on out to the Observatory for the next A2Z+ Astronomy Class (August 12th) and we’ll tinker about with the great info that is available from the USNO, for free. The A2Z+ class meets the second Sunday of each month at 7:00 P.M. in the West Wing of the Herget Building, lasts about an hour or so and is free to any member of the Observatory.

Picnic Under the Stars

August 12th 7-10 pm

By Dean Regas & Craig Niemi

Picnicking at the Observatory ca 1873

There are few places in Cincinnati as picturesque for a picnic as the Observatory. The Observatory invites you to picnic with your friends, family, and a few celestial treasures.

Bring your blanket, lawn chair (especially if it’s a giant one like in the photo), games, food and refreshments. There will be safe solar viewing, tours of the historic buildings, then a guided star gaze after dark.

Suggested donation of $5 per person.

August FOTO Planning Meeting

By Dale Zoller

The next FOTO Planning Meeting is scheduled for Thursday, August 23, 2012 at 6pm at the Observatory. The meeting generally lasts a couple hours. The planning meetings are open to all FOTO members. We encourage your participation in the discussion of future FOTO activities.
Welcome
New & Renewing Members!

Teresa & Steven Ahrenholz
Tracey Blackwelder
Jackie Bonfield
Sarah Boyer
Slawomir Bucki
Bill Cartwright
Terra Clarke
Carrie Cooker
Patricia Dawson
Chris and Jeanette Duncan
Robert Economou
Erik Evans
Louis W. Freese
Barbara Gloeckner
Mark Griffen
Len and Jakki Haussler
Thomas and Jeanne Hayden
Christy and Scott Holland
Anna Hutchinson
David Johnson
Martin and Lisa Koepke
Marilyn A. Kroll
Linda Lee Magee
Marilyn and Robert Mallow
Art and Carol McCardle
Chelsea McGimpsey
Larry Falkin & Beth Molinaro
Mary Mullen
Grant and Susan Musman
David & Ann Myers
Jeffrey H. Oberst &
Angela M. D'Andrea

Christopher Parrett and Mary Fitzpatrick
Donald Peck
Paula Quatkemeyer
Tony Rein
Donna Roselle
Bruce Safriet
Dr. Alfred Scheide
Doug and Tatja Schneider
Deidre Simpson
Michael Sitko
Doris and Jerome Stemmer
Ashley Stephens
George and Linda Strietmann
Brent Thompson
Charles and Mary Thompson
Tom Uhl
Carmen Venditto
Eric Weinberg
Eric Wesseling
Darren Wurz

Great Outdoor Weekend
Saturday & Sunday
September 22 & 23rd

By Craig Niemi

During this fall weekend experience a FREE sampling of the best nature activities in the Cincinnati Region.

The Cincinnati Great Outdoor Weekend -- an initiative of Green Umbrella, features environmental education and outdoor recreation organizations providing a diverse sampling of the best nature activities in Greater Cincinnati.

Both the Observatory and the Cincinnati Astronomical Society are offering programs. Bookmark the site and use it for a reference all year long.

All programs are FREE and open to the public. Visit www.cincygreatoutdoorweekend.org for a schedule and more.

Late Night at the Observatory
Saturday, August 4th
10:30 pm-12:00 am

By Craig Niemi

Can’t sleep? Looking for a unique night out? Come see what the Observatory is like after hours. You'll get to use the oldest big telescope in the U.S. to view astronomical objects that are not visible until late at night (weather permitting).

Each night is different and special! These programs are recommended for adults only.

If the weather does not permit viewing, we’ll have fun with some of the crazy science experiments and “adult” constellation mythology stories that we can’t share with family audiences.

Admission is $10 per person. The late nights sell out early. To make reservations please call 513-321-5186.

Did You Know….

Think it’s getting hotter? About 55 million years ago global temperatures increased 5 to 10 degrees with parts of North America experiencing a tropical climate and spring-like average temperatures in the Arctic.
Craig’s Corner

By Craig Niemi

With the miserable high temperatures we’ve had of late it’s hard to imagine that our little planet is actually further away from the sun now than it is in winter. The “reasons for the seasons” is one of many common misconceptions our staff and volunteer educators confront every day. You can prove it to yourself on your next daytime visit with an exploration of the Sundial. The sundial’s curious looking figure-8, along with the nearby Planet Walk, reveals much about our place in the solar system and the yearly rhythms of the planets.

A look at our planning calendar reveals much about the Observatory’s annual rhythms. It used to be that summer, with schools being out and vacation trips, was a relatively quiet time for everyone. The public astro evenings went on as usual along with a few special programs and events, but generally it was a time for everyone to catch their breath.

Then a couple of years ago we witnessed a shift in the Observatory’s orbit and now summers are as busy, if not busier, than the rest of the year.

In June and July the calendar quickly fills with astro evenings, public events, rentals, two week-long summer camps, two week-long teacher workshops, UC Communiversity continuing ed classes, history tours, Future Galileo training sessions, a stream of requests from other organizations for programs as part of their camps. And then just for fun every 100+years throw a Transit of Venus into the mix.

August continues on much the same as June and July with a slight slowdown in outreach programs. But that’s just a temporary lull because right around the corner is the start of another school year with hundreds of teacher’s requests for school outreach programs and field trips to the Observatory, our annual ScopeOut Fair, the Great Outdoor Weekend, Ultimate Educators Expo at the Zoo and more. No wonder attendance averages over 25,000 a year.

So are we complaining? Not at all!

This is actually a thank you to all our members and donors who help make it possible for the Observatory to serve the Greater Cincinnati community with thought innovative, provoking programs and truly authentic experiences. It’s thanks to Dean, Leo, John, Lyn and all our volunteers for all they do above and beyond what is asked of them. You’re what makes the Observatory so prized and valued by so many.

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FOTO Board Members
Date the Term Expires

Vice President: Rebecca Schundich / Oct. 2012
Secretary: Michelle Lierl Gainey / Oct. 2012
Treasurer: JoAnne Pedersen / Oct. 2012
FOTO/COC Representative: Scott Gainey / Oct. 2013
Trustee: Dave Bosse / Oct. 2013
Trustee: John Blasing / Oct. 2013

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UC Communiversity Classes for Life-Long Learners

By Craig Niemi

Behind the Scenes, July 30, 7pm
Sundials, Aug 4, 12-2p
Stargazing 101, Aug 14, 8pm
Class start times vary.
Call to enroll, 513-556-6932 or visit www.uc.edu/ce/

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Solar Observing

By Steve Rismiller

In the past few weeks, more than one large sunspot grouping has produced some large flares. So how does one know the intensity of a flare? I have updated my website with a “solar links” page that shows several dynamic links containing up to the minute graphs of what is happening on the sun. My website is http://home.fuse.net/starfield.

The first graph shows the GOES X-ray Flux Monitor. The red line shows the intensity of the sun. When a solar flare happens, the red line will produce a spike. If you click on the link, the page opens and just below the graph, the latest event is described with the time and intensity of the event. I find this very interesting when observing in H-alpha. The spike follows what you have just seen.

If you don’t have an H-alpha telescope you can use my link page to open the NSO/GONG H-Alpha Network Monitor. Just click on the GONG icon and the monitor page opens. You will have six observatories from around the world to choose your H-alpha view. You should see a green box with a “1” in it. That indicated that image is only one minute old. Click the solar image and you will get a larger image. The monitor renews every minute.

If you're interested in Aurora, then check out the Planetary K-Index chart. When the bars turn red and reach the top of the graph, there is a good chance the Cincinnati area may see the Northern Lights.

Check out the rest of the links on my page, as they will help you to observe and understand the Sun.
History of the Observatory

2nd & 4th Sundays
1-4pm

By Craig Niemi

Our talented volunteer docents from the Museum & History Committee weave the fascinating story of the Cincinnati Observatory’s rich history and the unique cast of characters that made Cincinnati the Birthplace of American Astronomy. An ideal opportunity for our astronomy program volunteers to learn more about the Observatory and incorporate its history into your programming.

No reservations needed, except groups. See the web calendar for updates.

Did You Know….

In 775 C.E., while Charlemagne was ruling his Frankish kingdom, something mysterious struck Earth. An analysis of the rings of two Japanese cedar trees reported online in Nature, reveals that from 774 to 775 C.E., the atmospheric level of radioactive carbon-14 jumped by 1.2%. This indicates that cosmic rays—high-speed, charged particles from space—bombarded our planet and converted some atmospheric nitrogen-14 into carbon-14.

International Observe the Moon Night

The 2012 InOMN is Saturday September 22nd and will be held in conjunction with the Great Outdoor Weekend.

By Craig Niemi

The International Observe the Moon Night Team consists of scientists, educators, and Moon enthusiasts from government, non-profit organizations, and businesses throughout the United States and across the globe.

International Observe the Moon Night has created the opportunity for people to take notice of the Moon’s beauty, share that experience with one another and instill in the public a sense of wonderment and curiosity about our Moon. InOMN partnerships include NASA, Google’s Lunar X-Prize and the Lunar and Planetary Institute. For more information on events, teacher STEM resources and kid’s activities go to http://observethemoonnight.org/.

Did You Know….

The very early Earth was just a giant collection of rocks which stuck together.

Ultimate Educators Expo @ Zoo

Wednesday September 12th, 2-6pm

Cincinnati Zoo & Botanical Garden
Harold C. Schott Education Center

By Craig Niemi

This is a fun, free afternoon for teachers of all grades and subjects to learn about the resources provided by the Greater Cincinnati Environmental Educators and its partner organizations including the Observatory. Last year over 400 teachers came out and learned about Rocks from Space from John, while Leo revealed the secrets of our Sun with solar scopes outside.

GCEE member organizations (including the Observatory) provide programming to both formal (K-12) and non-formal audiences (youth and adults). Since its inception, GCEE has served dozens of environmental education professionals, hundreds of classroom educators and thousands of Greater Cincinnati school children by providing resource fairs, education workshops, classroom programs and field trips. https://tickets.cincinnatizoo.org/affiliate.asp?ID=CC3168DC-5FBB-447E-998B-CDB0620EE995