Upcoming Events

August Calendar

ScopeOut Planning Mtg Aug 2 6p
Intro to Astronomy w/ Dean Aug 3, 10 &17
Astronomy Thursday Aug 4 8:30p
Astronomy Friday Aug 5 8:30p
Astrophoto Workshop Aug 5 6-7
FOTOKids Youth Program Aug 6 9p
Stonelick Stargaze Aug 6 dusk
Astronomy Saturday Aug 6 8:30p
FOTO Member’s Meeting Aug 7 8:30p
Topics w/ Dean Regas Aug 9 9p
Astronomy Thursday Aug 11 8:30p
Astronomy Friday Aug 12 8:30p
Starlit Picnic Aug 13 7p
History of the Observatory Aug 14 1p
* Behind the Scenes Aug 15 7p
FOTO Planning Mtg Aug 18 7p
Astronomy Thursday Aug 18 8:30p
Astronomy Friday Aug 19 8:30p
UC CubeCats Dinner Aug 20 6:30p
A2Z+ Astro Class Aug 21 7p
Volunteer Training Aug 23 8p
Astronomy Thursday Aug 25 8:30p
Enjoy the Arts Night Aug 26 8:30p
Stonelick Stargaze Aug 27 dusk
History of the Observatory Aug 28 1p
Starry, Starry Night Tour Aug 31 7p
Ohio Open Doors Sep 9-16 12-4p
ScopeOut! Sep 10 12-10p

Complete Calendar & Events Online

ScopeOut 2016 Update

By Dale Zoller

ScopeOut 2016 will be held Saturday, September 10, 2016.
Dava Sobel (author of Galileo’s Daughter, Longitude and The Planets) will be our keynote speaker. Venice on Vine will once again cater the dinner before the talk. We are lining up exhibitors including the “Wright Stuff Rocketeers” (model rockets), “First Lego League Robotics” team, Stratus Helicopters, iSpace, AIAA and others.

Thanks to grants from Duke Energy and P&G, ScopeOut 2016 will be free to the public.
ScopeOut requires a large number of dedicated volunteers to make it run smoothly. We anticipate an increase in attendance this year, so this will be especially true. At this time, we are looking for volunteers to cover registration, history tours, Science Tent, FOTO/COC table, dinner set up, etc. We will have a signup sheet available at the August FOTO meeting. If you cannot attend the meeting, please email me at dale.zoller@fuse.net.

The next ScopeOut 2016 planning meeting will be held Tuesday, August 2 at 6pm at the Observatory. All are invited.

Starlit Picnic
Saturday August 13th 7-10p

This is a romantic picnic like no other!

There are few places as picturesque for a picnic as the Cincinnati Observatory. You’re invited to dine outdoors with us and take in a sunset, listen to heavenly music as the Moon rises, and then have dessert under the stars.

You bring your blanket, food and drinks, and we’ll take you on a tour of our historic buildings. And if the weather is clear, we’ll show you the stars.

Special performance by Jake Speed and the Freddies

$30 per person. (benefits the COC’s education programs)
Ages 21 and up.
Reservations are required.
Sign Up Online or 513-321-5186.

UC CubeCats Open House
Saturday August 20th 6:30pm

Real Rocket Science!

The Observatory has been working with CubeCats, a UC student organization. Their mission is to educate about spacecraft through the design and construction of high altitude balloons and CubeSats (a nanosatellite). They are designing payloads for their next CubeSat missions.
Stop by the open house so you can learn more about their amazing projects. There will be light refreshments and presentations by CubeCats members describing the current payloads they are working on. After the presentations, learn more about UC CubeCats and enjoy all the Observatory has to offer! Call 513-321-5186 for more info.

For more information on CubeCats contact: Alex McGlasson, UC CEAS. (513)-967-0290 mcglasam@mail.uc.edu CubeCats on Facebook

**Venus Meets Jupiter**
**Saturday August 27**th **7:30p**

Join us at the Cincinnati Observatory to see these two bright night lights right next to each other. No reservations needed. Great for all ages. **Free for Observatory members.** See the [Public Events Page](#).

**Late Night Date Nights**
**Saturday August 27**th **10:30pm**

Admission is $25 per person. [Sign Up Online](#).

**Astronomy Evenings**
**Thursday Aug. 4, 11, 18, 25**th  
**Friday Aug. 5, 12, 19**th  
**Saturday Aug 6**th  
**8:30-10:00pm**

Go online to sign up & more dates.

**Intro to Astronomy w/ Dean Regas**
**Wednesday August 3, 10, 17**th  
**8-10pm**

Want to learn about the universe, but don’t know where to begin? This introductory astronomy course is perfect for beginners who want to know more about observing the night sky.

Led by astronomer and co-host of PBS’ *Star Gazers*, Dean Regas, this course will show you the stars. Learn how to identify stars, constellations, and planets as well as viewing tips for the Moon. Each night includes viewing through the historic telescopes (weather permitting).

$50 per person, $40 for members. [Sign up Online](#) or 513-321-5186.

**Astrophotography**
**August 5, 6 & 7**th

The Cincinnati Observatory Center's Remote Imaging Astrophotography Workshop will provide you the opportunity to learn how remote imaging works, how you collect imaging data and how to turn that data into fantastic images of our universe all from your living room computer.

The workshop is limited to 20 participants and we need at least 10 participants for each workshop to take place, so please Sign-Up early. $100.00 for Observatory members or $165.00 for non-member. For more information download the syllabus (pdf).

**Lifelong Learning**

**Communiversity**
**Behind the Scenes at the Cincinnati Observatory**  
**Mon. Aug. 15**th **7pm**

$29 per person. [Sign up online](#).

**Stargazing at Stonelick**
**Saturdays – August 6**th & 27**th**

Need help with your telescope? Get expert tips setting it up and exploring the night sky. Stargazing begins at dusk. Open to all ages. Stargazes are weather permitting. “Like” Stonelick Stargazers for weather and schedule updates.
Topics w/ Dean Regas

Our Spectacular Sun
Tuesday Aug. 9th 8pm

History of the Telescope
Tuesday Sept. 13th 8pm

These fun and laid-back classes for beginners focus on a variety of topics and will surely keep you looking up!

$15 per person $12 for members. Sign Up Online or call 513-321-5186

The Observatory by Day

The Observatory is open Noon to 4pm Monday through Friday! Stop by for a tour!

History & Museum Notes
Tour the Observatory
August 14th & 28th
Drop in between 1-4pm

Stop by for the whole story or just the highlights. It’s all fascinating and connects our past with your future. Free for members. Group tours by appointment.

History Notes
By John Ventre, COC Historian

Ormsby MacKnight Mitchel Authorized to Purchase a Telescope

On June 15, 1842, less than a month following the founding of the Cincinnati Astronomical Society, its Board of Control drafted the following letter to Ormsby MacKnight Mitchel instructing him to travel to Europe to acquire a telescope for the Society.

Ormsby MacKnight Mitchel, Sir,
In conformity with a resolution of the Board of Control of the Cincinnati Astronomical Society, you are hereby authorized and requested to visit Europe, as soon as your business will permit, for the purpose of procuring a Telescope and such other instruments as the Society may require. You are aware that it is the desire of the association to obtain the most perfect instruments that can be procured, and that they rely on your judgement and skill to make selection, or to give directions for their construction, as may be the case.

It is believed that the sum now subscribed by the members, amounting to seven thousand and five hundred dollars, will be paid in October next, and that in any arrangement you may see proper to make, you may calculate safely on that result. [The final cost of the telescope was $9,000.]

It is desirable that you keep the Society, through their Board of Control, advised of your movements and progress, and particularly any contracts or pecuniary engagements you may find necessary to make, in the discharge of the trust conferred on you by the Society. It is also expected that you will not extend your engagements beyond the means at the disposal of the Board.

Signed J. Burnet, President; M.G. Williams, Sec’y.

Visiting Charlottesville?
If so, would you be willing to transport some boxes of books back to Cincinnati? Dr. Ken Seidelmann, former director of astrometry at the U.S. Naval Observatory, studied under Cincinnati Observatory Director Paul Herget and is donating another significant collection of astronomical books that need to be transported to the Observatory.

Please contact John Ventre, jeventre@ix.netcom.com or 513-321-5186 Ext. 4

Sputnik Revisited
In July of 1955, officials at The White House announced that the United States were laying plans to launch an Earth-orbiting artificial satellite, a feat never before accomplished. In part to facilitate the eventual viewing of the proposed satellite by myriad of amateur astronomers, the
MOONWATCH program fostered development of affordable telescopes to allow these aficionados to prosecute their intended searches. The Edmund Scientific Company, of Barrington, New Jersey began offering their version at least as early as the Spring of 1957. Then, on 4 October of the same year, Sputnik I, the first artificial satellite, joined the natural astronomical bodies in the firmament ----- launched, not, as expected, by any of the agencies of the United states, but, rather, by those of the Soviet Union.

Recently, member Tom Busemeyer donated a venerable “Edscorp Satellite Telescope”. Said device was a veritable witness to the dawn of “The Space Age” that began with the surprise launch of Sputnik.

For more information about “The Dawn of the Space Age”, and Moonwatch.

**Recent Program Recap**

**Saturnday**

Saturn put on an amazing show for over 600 visitors!

**Grandparent’s Day**

Great to see one generation inspiring the next.

**Sun-Day Sunday Sundae**

Even with the heat and humidity over 300 came out to learn about our nearest Star. Our thanks to United Dairy Farmers for their generous support with sundaes!

**STEM Education Update**

Thanks to everyone who helped at the Outdoor Kid’s Expo! It’s an awesome event that has significant impact on our community’s youth, especially for those who normally don’t have this kind of opportunity. The Expo is one of the largest outdoor recreation and nature education events anywhere.

**Sharing his Passion for Science**

A few of the places COC Outreach Scientist, Aaron Eiben has been this year.

Cincinnati Astronomical Society members were one of the country’s most active amateur groups.

Gamble Montessori High School
Cincinnati Museum Center
Woodland Middle School
Fairview-Clifton German Language School
Campbell County High School
Girl Scouts Community Partner Breakfast
All About Kids
Batavia Library
Ft. Thomas Summer Camp
Town & Country Sports Center
Pleasant Hill Academy
John Paul II School
Aiken High School (3X)
Milan High School
Chase Elementary School
Lakota West High School
Villa Madonna Academy
Oakdale Elementary School
Observatory Support

Fundraising Updates

Anna Hehman
Development Director
513-321-5186
anna@cincinnatiobservatory.org

Make your Reservations for the Starlit Picnic!

After the success of the Celestial Sips event in late June, we are looking forward to another fundraising event, now in its second year: The Starlit Picnic! The full story is on page one!

Also, please be sure to renew your memberships if you are coming due – and if you have already done so, please check with your employer to see if they do matching gifts! This is great area of untapped revenue for the Observatory and we’d appreciate your help in securing matching funds from your organization if possible.

Membership, Member Programs & Volunteers

For New Members

With your membership, you become a Friend of the Observatory (FOTO) and join our family of amateur astronomers, history buffs, donors and volunteers.

FOTO meets on the Second Monday of the month at 7:30 pm at the Observatory. All members and their guests are welcome to attend.

Your benefits include:

• Discounted or free admission to Friends of the Observatory (FOTO) programs
• Member’s only classes and programs
• Loaner telescopes
• Free admission to Astronomy Thu/Fri/Saturdays
• Discounts in the Gift Shop
• Free admission to the historic landmark buildings and permanent collections
• One-year subscription to the monthly FOTO e-newsletter
• Members-Only Discussion Forum

For more information, call the Observatory at 513-321-5186.

Two Easy Ways to Give

FOTO Member’s Meeting

Monday, August 8th 7:30pm

In 1894, Mabel Loomis Todd wrote the following: “I doubt if the effect of witnessing a total eclipse ever quite passes away. The impression is singularly vivid and quieting for days, and can never be wholly lost. A startling nearness to the gigantic forces of nature and their inconceivable operation seems to have been established. Personalities and towns and cities, and hates and jealousies, and even mundane hopes, grow very small and very far away.”

Solar eclipses have been observed throughout history. Ancient eclipse records made in China and Babylonia are believed to be over 4,000 years old. Millions of Americans will see the sight of a lifetime on August 21, 2017, when a rare total solar eclipse sweeps the nation from Oregon to South Carolina. Day turns to night for two minutes and the sky's most beautiful spectacle, the Sun's corona, reveals itself in grandeur.

Many of our Observatory members have become “globe trekkers” over the years with a desire to stand in the shadow – the site that focuses on what it is like to experience one of the most awesome and sublime nature events – the Total Eclipse of the Sun.

In anticipation of the August 2017 Great American Eclipse, you are invited to share your personal eclipse adventures during our membership meeting on Monday, August 8, 2016, at 7:30pm when the program committee will host the “Member Total Solar Eclipse Experiences” program.

During this meeting any member who wishes to share their past eclipse adventures are welcome to speak to the membership and answer their questions. You may have the use of our projector to show your favorite images of your event. If you like, you may write a few sentences about (1) who you are, and (2) which eclipse you will describe, and send it to:
seti@outlook.com and we will introduce you prior to speaking.

This is a unique opportunity to hear about and to see the personal experiences of what eclipse viewing is really like.

FOTOKids Youth @ Stonelick
Saturday August 6th 9pm

It’s been a long time since we’ve had a FOTOKids Stargaze, so this month let’s meet at Stonelick State Park!

On a moonless night, one can see the Milky Way and dozens of telescopes with astronomers who are happy to share their views of the Cosmos. The catch is we only go out if the sky is clear, so stay tuned for weather updates! If the weather is OK, plan on arriving around 9pm and stay for at least an hour or two.

See the Stonelick Stargaze article on page 2 for more information.

Questions? Contact Aaron at aaron@cincinnatiobservatory.org or call 513-321-5186.

A2Z+ Astronomy with Dave Bosse
Astro Knowledge Outline
Sunday August 21st 7-9pm

Astronomy deals with some pretty big numbers sometimes and it helps to call a number by its proper name. Since we talked about big numbers last month in the A2Z+ class I promised the A2Z+ folks a quiz question about numbers, so here goes: We all know the names of the numbers, million, billion, trillion and even quadrillion. Those values would be 10 to the 6th, 10 to the 9th, 10 to the 12th and 10 to the 15th. Pretty big numbers. But what is the name of 10 to the 225th? Question 1: What are you counting!? That is more than the sum total of all of the protons, neutrons, electrons, photons AND neutrinos in the entire Universe… by a factor of 10 to the 135th. It doesn’t matter what you are counting, 10 to the 225th still has a name: one quattuorseptuagintillion. By the way, 10 to the 135th would be a mere quattuorquadragintillion. Not necessarily completely useless information, but certainly esoteric. This month’s A2Z+ Astronomy class is going to come back down to Earth, so to speak, and talk about an outline of astronomical knowledge covering the Sun, Stars, the Galaxy and Cosmology. (And we’ll stick to numbers 10 to the 30th or smaller.)

The August edition of the A2Z+Astronomy class will meet at 7:00 PM on August 21st in the West Wing of the Herget Building and will last a couple of hours.

ScopeOut Consign, Sale & Swap
Items Wanted for ScopeOut
By Dave Bosse

When was the last time you used that 12mm Plossl since you got that 10mm TeleVue? Get a few bucks for your redundant astronomical equipment or donate them to the Observatory for sale at ScopeOut. We’ll find a new home for your unused gadgets so they can see light again. Eyepieces, filters, scopes, mounts, tripods, parts, you name it, we can move it. Working, not working. Interested? Drop an e-mail at dave.bosse@uc.edu.

Borrow a Telescope!
By Dean Regas

As a member of the Observatory you can borrow a scope though the FOTO Telescope Loan program. For more info please call Dean at 513-321-5186.

Membership News
By Michelle Lierl Gainey

Hello Friends!
A proposed revision of the FOTO Bylaws has been written, to adapt the Bylaws to the recent FOTO – COC merger agreement. The proposed Bylaws revision is posted on the FOTO Forum “consent agenda”. Please review this document and send any questions or comments to me (mlierl@fuse.net) before the 8/08/16 FOTO meeting. We will take a vote for approval of the Bylaws revision at the August meeting. Thanks to Al Scheide for spearheading the effort to revise the Bylaws!

Are you adept at collimating mirrors, adjusting finder scopes, and doing minor tune-up repairs on telescopes? Do you enjoy teaching new amateur astronomers how to use their telescopes? The Observatory has offered How to Use Your Telescope classes in the past; more recently, arrangements for telescope consultations have been made one-on-one, on a case-by-case basis. We would like to try a slightly different approach to make this service readily accessible for people who need help with a telescope, or some tips on how to
get started with their new telescope. If you are capable and interested in serving as a volunteer Telescope Consultant, please send me (mleirl@fuse.net) your e-mail address. We will have a pool of volunteers who will be contacted by e-mail when there is a request for a telescope consultation. Whichever member of the group is available to meet with the telescope owner can e-mail the group to let them know, and make arrangements to meet with the telescope owner. Thanks for all you do to support the Observatory!

July Member Meeting Highlights
July was the annual picnic. A great time was had by all!

FOTO Planning Meeting
The next FOTO Planning Meeting is Thursday, August 18th at 7pm at the Observatory. The meetings are open to all members.

Volunteers!

Telescope Pointing Practice
Tuesday August 23rd 8pm
Already a Telescope Pointer and want more practice, or want to join the ranks of Pointers? This session is for you. For information contact Dean Regas at 513-321-5186 or Dean@cincinnatiobservatory.org

On August 21, 2017 the Sun will be eclipsed by the Moon. This is a sight that all of us should plan to observe. Wouldn’t it be nice to be able to do a practice run to see how your equipment and cameras might work while pointing in the eclipse direction? Maybe you might want a certain landscape feature in the frame to enhance the picture of the eclipse. According to Astronomy magazine, there are two dates that you could make that trial run happen. The first is August 21, 2016 just one year before the eclipse and the other is April 21, 2017. On both of those dates, the sun is at a declination of 11° 57’. Actually, you could use three days before and after those dates for your rehearsals since the Sun’s declination changes very slightly.

Now if you plan to stay in the Cincinnati area for the eclipse, the practice times start at 1:01 pm - the start of the eclipse, 2:29 pm - the midpoint of the eclipse, and 3:52 - the end of the eclipse. Totality will not be seen from Cincinnati. If you travel to the Paducah, KY area you will see the total eclipse. Those practice times are 11:54 am CDT - eclipse starts, 1:22 - totality starts, 1:25 - totality ends, and 2:25 pm - the end of the eclipse.

So now is the time to get your equipment together and practice. Don’t be left standing in the dark and wondering what to do.

Observatory News
Craig’s Corner
Craig Niemi, Executive Director

Make sure Saturday September 10th is free on your calendar! Every fall the Friends of the Observatory host the ScopeOut Education Fair.

Originally conceived as a celebration of the hobby of astronomy, ScopeOut included local telescope equipment retailers, astronomy related exhibitors, talks and activities through the day, all leading up to the keynote dinner and lecture. Every year since 1999 ScopeOut has drawn hundreds of amateur astronomers, science buffs and families to the Observatory.

ScopeOut now draws more kids, scouts and teachers to the day and evening events. ScopeOut has been a STEM (science, technology, engineering, mathematics) showcase since before there was STEM, now including more space related disciplines, solar energy, aerodynamics, environmental education and history.

You can read more about ScopeOut 2016 on pages 1 & 6. You can sign up for the dinner online.

Our thanks to ScopeOut 2016 event chair Dale Zoller; the ScopeOut Planning Committee; all the hard-working volunteers that make it such a great event, and the University of Cincinnati Physics Department for their generous support.

Take Home the Mitchel Scope

Only a handful of these remarkable models remain. Handcrafted by expert modeler Barry Crist, these are going to be a collector’s item. $110.00. Limited # available
Connect With Your Observatory

The Cincinnati Observatory Center
3489 Observatory Place
Cincinnati, OH 45208
513-321-5186
www.cincinnatiobservatory.org

The Observatory Online:
What’s Up/Calendar/
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cincinnatiobservatory.org

Members-Only
Discussion Forum
On the website or Click Here

Social Media

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To contact a FOTO Board member:
craig@cincinnatiobservatory.org or use the Member’s Forum.