

Observatory e-News

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Coming Up At The Observatory....

Aug. 30 & Sept. 27 **Stonelick Lake Star Party**. See page 3
Sept. 4th **FOTO monthly meeting**. See pages 1 & 2
Sept 5th **FOTOKids meeting**. 8:00 pm. See page 4
Sept 5th **Preparing for Night** at the Cincinnati Nature Center
Sept. 6th **Public Stargaze** at Banklick Park
Sept 13th **Annual ScopeOut Astronomy Fair**. See page 2
Sept 14th **History Tours**
Sept. 17th 3rd **Wednesday Astronomy Lecture Series**. Pg 3
Sept. 18th **FOTO Planning Meeting**. See page 5
Sept. 20th **High Steel Tour** at Cincinnati Museum Center
Sept. 23rd **Humanities Lecture with Thane Maynard**. See pg 3
Sept. 27 & 28th **Great Outdoor Weekend** regional events
Sept 28th **History Tours**
Call 513-321-5186 for more info.

FOTO's September Meeting Program

By John Ventre

Rob Landis, an Operations Lead for NASA, will present the program at FOTO's September meeting on Thursday, September 4, 7:30 p.m. He will describe how he and his colleagues are attempting to obtain NASA's permission to schedule a manned mission to land on an asteroid. One objective of this mission would be to learn information about the asteroid's composition, which is essential for knocking an Earth-bound rock off course.

Rob will be in Cincinnati conducting historical research on Ormsby MacKnight Mitchel, the founder of the 1842 Cincinnati Observatory, in preparation for his book about Mitchel.

The Word from FOTO's President Bosse

This month's word is just one and comes in the form of a plea. *Volunteerism*.

Glancing at a calendar the other day, I was really surprised to notice that September 13th, the date of Scope-Out, was only a few weeks away; the summer has gone by so fast. And then I think back across the past year and the number of FOTO volunteers that have moved away or who will otherwise be indisposed on the 13th. This might be the time for all good men (and women) to come to the aid of their Observatory.

Scope-Out, as an event, does not compare to all the programs and events that the Observatory makes possible throughout the year. Those programs are the bread and butter of the Observatory and should be the primary focus of all those who support the Observatory with their time and efforts. Scope-Out, however, gets a little more press than the average Observatory event and that makes it a little different.

On the 13th, we can expect many people who have never been to the

Observatory before. We can expect many people who haven't been to the Observatory in a long time. (Boy, are they in for a surprise!) We can expect many regulars on a return visit. Nothing different about these demographics, the counts are just expected to be a little higher. All of these folks deserve to be suitably impressed in their own special way.

Don't let some self-prescribed astronomical ignorance, "I don't know enough about Astronomy," keep you from satisfying your curiosity and interest in the Observatory. Every single one of the FOTO volunteers comes to the Observatory to learn. Even if you can just spell Observator,... Observastor,... Ubsertvyy,... the O; your assistance will be greatly appreciated. And you'll learn something too, I promise.

If you feeling like taking that next baby step in support of the Observatory and becoming a true Friend, we can use your help on the 13th. From serving food, operating the big scopes, or just pointing to the bathrooms, just let us know you want to join the movement. We'll have sign-up sheets at the next FOTO meeting, or just let someone at the Observatory know that you are interested.

*Consider volunteering.
Cleeeaaarr skiiiiies!!*

Did You Know....

By Greg Huber

The asteroid "Cincinnati" was discovered by the famous American astronomer Edwin Hubble on August 30, 1935. It was his only asteroid discovery. It is named after the Cincinnati Observatory, whose staff did most of the orbit computations.

ScopeOut 2008

Telescope Festival at
The Observatory

September 13, 1-10 pm

The telescope was patented 400 years ago this month and the Cincinnati Observatory is celebrating with an all-day (and all night) open house called ScopeOut.



ScopeOut is an opportunity for people of all ages to look at the latest and greatest astronomical equipment offered by local and national vendors. Activities include, classes, educational materials for teachers, kids' spacecrafts, safe viewing of the Sun, tours of our historic buildings and more astronomical door prizes than you can imagine. Plus we will have a great guest lecture by **Phil Plait** the always entertaining and enlightening BAD ASTRONOMER (see <http://www.badastronomy.com/>)



SCHEDULE OF EVENTS

1 pm to 5 pm for the displays, classes, and tours.

6 pm to 8 pm for the dinner & keynote lecture by **Phil Plait**. The "Bad Astronomer" (reservations recommended).

8 pm to 10 pm celestial viewing of the stars (weather permitting). Evening viewing is free but donations are requested.

ADMISSION is just \$5 for adults, \$3 for children.

For Keynote Speaker and Dinner Reservations, add \$15.

FOTO's September Meeting

By Dave Bosse

Dr. Nick Abel was scheduled to give our August presentation, but his wife had a baby girl at the end of July, so we decided to give him a break from FOTO presentation duties; at least a brief deferment. In Dr. Nick's absence, I combined a couple of my classroom lectures and gave a condensed explanation of the Hertzsprung-Russell Diagram, a graphical way to look at the evolution of stars. No one threw anything at me, so I guess I did OK.

Given the opportunity to host a surprise guest at the September meeting, Dr. Nick was more than happy to take a breather for another couple of months. We'll be hearing from Nick at the November meeting. For details on this month's meeting's presenter, see John Ventre's article on page one this issue. What I can tell you is that you won't want to miss the September meeting! Really!

The general meeting will convene on Thursday, September 4th at 7:30 P.M. in the west wing of

the Herget Building at the Observatory.

Don't forget about the informal group that meets for dinner before the general meeting at 6:00 P.M. (or thereabouts) at Panera Bread in the Hyde Park Plaza. Come hear the Astronomical version of fish stories!

Did You Know....

A large amount of water vapor has been detected inside a dusty preplanetary disk around an embryonic star called NGC 1333-IRAS 4B. Enough water was discovered to fill the Earth's oceans five times!

FOTO Nomination of Officers

By John Ventre

The annual FOTO nomination of its officers will be conducted at the regular September FOTO meeting on Thursday, September 4, 7:30 p.m. Please attend this meeting and consider nominating those who will be leading your FOTO organization in 2008.

In addition to making your nomination at the September meeting, nominations for the four officer positions (President, Vice President, Secretary and Treasurer) are currently being accepted by the Nomination Committee Chair, John Ventre, 321-5186 ext. 4 or jeventre@ix.netcom.com. Nominations may be made until the October 2nd election meeting.

As of August 23 the following individuals have accepted the nomination for the indicated offices: President: **Frank Huss** and **Dale Zoller**.

Vice President: **Rebecca Shundich**
Secretary: Open
Treasurer: **JoAnne Pedersen**

The Humanities Lecture Series

by Craig Niemi

Join us on Tuesday September 23rd at 7:30 pm for an evening with **Thane Maynard**, Executive Director of the Cincinnati Zoo & Botanical Gardens.



The mission of his work "Teaching and Writing" is to tell the story of biological diversity, natural history, and wildlife conservation to the general public.

Thane is best known as a writer and host of numerous wildlife programs, including the daily National Public Radio series, *The 90-Second Naturalist*, which airs locally on WVXU 91.7, and on many other stations across North America. He has been featured on "Good Morning America", the "Today" show, and "CBS This Morning", and has been a regular wildlife expert on "Late Night with Conan O'Brian".

The humanities lectures are a natural extension of the Observatory's efforts to highlight its historic setting and broaden its audience.

The lectures focus on subjects that may be historic or philosophic in nature, but are somehow linked to the history of Cincinnati and/or science.

Reservations are required. Call the Observatory at 513-321-5186 to RSVP.

Stonelick Lake Star Parties

By Scott Naylor

The next scheduled Stonelick Star Party will be **Saturday, August 30th and Saturday, September 27th**.

We've been observing throughout the week - when the skies are really good, if you'd like to be notified when folks are going out to Stonelick, just let me know.

For directions or for more information phone Scott Naylor at 513-575-5556.

Wednesday Lecture Series

By Craig Niemi

Looking for more astronomy? The Observatory has begun a new lecture series by area astronomers which bring more in-depth topics down to Earth. The lectures will be held on the third Wednesday of each month at 7 pm. They are free to members and open to the general public for \$5.

Coming up:

September 17th. **Dr. Ray McNeil** of Northern Kentucky University who will speak on "Spectral Classification".

The spectrum of a star is a "fingerprint" that serves as a probe of its atmosphere and reveals some of the star's basic properties. In this program Ray will discuss how stellar spectra are formed and how the pattern in a particular spectrum can be used to identify those properties.

October 15th **Dr. Scott Nutter** also from NKU, will talk about Cosmic Rays.

Reservations are suggested. Call 513-321-5186 to RSVP.

Craig's Corner

By Craig Niemi, Observatory
Executive Director

What do Bootsy Collins and Neil Armstrong all have in common?



They both recently visited the Observatory. Really. We'll have pictures soon to prove it.



Bootsy, along with Jerry Springer were among 70 guests for Todd Portune's recent event. Dr. Armstrong spent an afternoon taping a congratulatory video for the scientists and engineers of the Cassini mission which is still exploring the Saturnian system. Everyone who was at both events had kind words of encouragement for the Observatory and our mission.

Construction continues on the Paul Nohr Memorial Sundial. Concrete for the walkways, steps and sundial patio has been poured and now you get a good feel for how amazing this addition to the

Observatory's grounds is going to be. The cut stone and pavers will be next to go in. A final decision on the shape and size of the surrounding berms will be made soon. We're still on track for a dedication in mid to late September. Thanks again to all who have contributed to this wonderful project!



The annual education fund drive has exceeded our expectations and donations continue to come in. Thanks to everyone who has contributed to date! Please take a moment and check if your employee matches your charitable donations. GE for example, very generously matches their employee and retirees donations dollar for dollar. In a tightening economy it's a great way to maintain or increase support your favorite organizations.

September features several special events which are designed to introduce adults, families and kids to the wonders of the world around them. Join astronomers from the Observatory at the Cincinnati Nature Center on Friday the 5th for their popular *Preparing for Night* event. It's an evening of music, night hikes, children's crafts and of course stargazing.

Back at the Observatory the 10th Annual ScopeOut Astronomy Fair is a full day of astro vendors, exhibitors, classes and viewing. This year's keynote speaker is **Phil Pliat** who wears the moniker "the Bad Astronomer". Find out why that's not really the case.

September ends with the Great Outdoor Weekend. The Observatory is proud to take part in this exciting regional event which supports the

mission of the fast growing *Leave No Child Inside* initiative.

Leave No Child Inside of Greater Cincinnati (www.lncigc.org) is a collaboration of local organizations and individuals educating the community that time spent in nature is essential for the physical, mental and emotional health of all children. That time outdoors certainly includes stargazing under the night sky. This reconnection to nature is vital for so many reasons including raising children with an appreciation for the natural world that will enable and encourage them to be the next generation of stewards of this little planet we all share.

See you outside!

Great Outdoor Weekend

By Craig Niemi

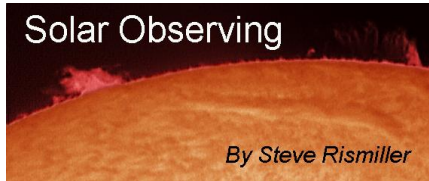
Get Out during this fall weekend and experience a free sampling of the best nature activities in the Cincinnati Region.

The Great Outdoor Weekend is a collaboration of environmental education and outdoor recreation organizations providing a diverse sampling of the best nature activities in Greater Cincinnati. Because of the generous financial and in-kind support of our sponsors and participating organizations, all programs are FREE and open to the public. The Observatory and the Cincinnati Astronomical Society will be hosting stargazes both evenings.

Make a true weekend of it and visit several venues. Plan your weekend by picking up a 2008 event program guides at the Observatory or visit the GOW website.

www.greatoutdoorweekend.org/

This is a New Column about Solar Observing

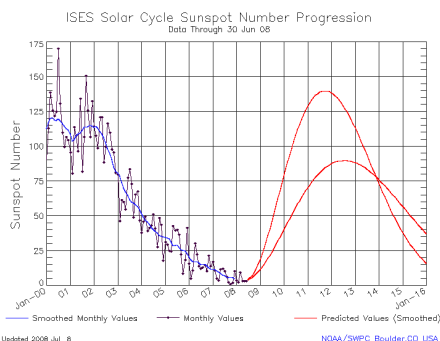


Many FOTO members use the observatory telescopes to observe the sun with white light filters as well as the Hydrogen Alpha filters. Both of these filters can provide breath-taking views of the sun.

If you have been looking at the sun lately, you probably have noticed the lack of sunspots and other surface details. There is a good explanation for this. It is called the Solar Cycle.

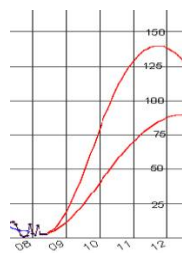
First, here is a brief history of the Solar Cycle. Wikipedia states "The solar cycle was discovered in 1843 by [Samuel Heinrich Schwabe](#), who after 17 years of observations noticed a periodic variation in the average number of [sunspots](#) seen from year to year on the solar disk.... The average duration of the sunspot cycle is about 11 years...but cycles as short as 9 years and as long as 14 years have been observed. Individual sunspot cycles are partitioned from one minimum to the next".

This Solar Cycle graph shows a portion of the cycle beginning in January 2000 and ending in January



2016. The blue jagged line indicates the actual observed sunspot numbers as the previous cycle declined and red line predicts

the sunspot numbers for the new cycle. Currently we're at the bottom of the cycle and have just started the new cycle indicated in red.



This graph is an enlargement of the previous graph and it zooms in on what we might expect in the future. The red lines predict the number of sunspots with the actual count falling between the two red lines. Sunspots should start returning to the solar disk in 2009 and continue increasing in numbers until the cycle reaches its maximum in October of 2011. So I believe we should start seeing more activity very soon.

That's it for now, but watch future newsletters for more information on Solar Observing.

FOTO Planning Meeting

By Dave Bosse

We've been on a regular roll of late with the FOTO planning meetings. Mostly business and all fun! The next FOTO planning meeting will be held on September 18th at 6:00 P.M. Panera Bread restaurant in the Hyde Park Plaza has become our haunt, just a few blocks from the Observatory. I encourage all FOTO members to attend these planning meetings. Your input is welcomed, appreciated and needed to keep FOTO headed in the right direction.

Did You Know....

It is estimated Pluto leaks up to 1000 lbs per second of its atmosphere into space as it gets closest to the Sun.

UC Commiversity Classes

By Craig Niemi

Enrich Your life with UC Commiversity Courses

Expect a wide variety of useful and timely topics featuring expert and entertaining instructors.

There are no tests or grades to worry about. Commiversity offers the best value in first-rate informal courses held at convenient locations.

Master skills to apply right away. Meet people with similar interests. Learn something new—just for the fun of it!

Commiversity offers adults in Greater Cincinnati learning opportunities in such diverse areas as medicine, knitting, dancing, astronomy, fitness, test preparation and much more

Coming up at the Observatory....

"Behind the Scenes" by **John Ventre** on October 13th

"Introduction to the Night Sky" with **Dean Regas**, on October 7th & 14th

"Star Stuff, Building Blocks of Everything" by **Frank Huss**, on October 27th

"Voyage Through the Universe" with **Richard Hamilton**, on November 18th

Fees: \$18 per person
Classes start at 8 pm.

To Register or to browse their on-line catalog visit www.uc.edu/ace/commu/, or call UC at 513-556-6932

Visiting Green Bank Observatory

By John Coff

Graham Davis and I recently went to National Radio Astronomy Observatory in Green Bank, West Virginia!



The drive there was pleasant and the roads were good. We had a good time and we are going back next year. I would recommend this trip.



The price of admission was 75 dollars and camping is included. The camping spaces are large, clean, and well manicured.

We met some people from our local area. (Dayton , etc.) and we stayed up late jawing about astronomy.



Welcome Renewing & New FOTO and COC Members!



Celeste Baumgartner
Herman E. Braun
Andy Bruggeman
Timothy Burke
Andrew Chun
Charles & Debra Clark
Bill Cox
Josh Cumby
Hallie Dovich
Frank Fernandez
Robert & Ann Flanagan
Jack Gluckman
Greg Hand
Michelle Hayden
Michael Heflin
Scott & Andrea Heile
David Hemmerle
Christy & Scott Holland
Jeff Howe
Dr. Ronald Jandacek
Timothy Juenke
John & Margie Keller
Kevin & Teresa Keller
Susan Kellogg
Jim Kite
Marilyn A. Kroll

Aaron Kuertz
John Lanier & Jane Garvey
Dale Lombardo
David J Mason
Robert McCarthy
Constance McClure
Laura Murrer
David & Susan Noonan
Louis Prince
Rosalind Reade
Jerry R. Rimele
Jeff Rodriguez
Kathleen Rorris
Lori Rutherford
Trey & Lisa Savage
Richard & Susan Schmidt
Charles Seibert
Gerald A. Shubs
Joseph Sims
Rob & Gaby Skully
Elizabeth Stone
Chuck Strubbe
Stuart Sutphin III
Margaret Thompson
Matt & Annie Wallace
Robert Wallenhorst
Stephen Wavra
Linda Weber
Gary West
Mark Wilson

September's Trivia Question

By Greg Huber

What organization has first claim to all U.S. space-flown artifacts, excluding personal property of astronauts?

Trivia for August: What was the one fear that all of the first seven astronauts shared?

Answer: Every early astronaut was scared of not being able to fly when it was their mission.

"One Man's Junk...Another Man's Treasure"

By Steve Rismiller

Do you have some unused astronomy "stuff" just laying around the house taking up space? How about an unused eyepiece, star chart, or astronomy software? If so, why not bring it with you to Scope Out on September 13th.

We are going to have a swap table again this year and we need your "stuff".

It's easy and a win – win opportunity for you.

1. Contact me with what you want to sell.
2. Just bring or drop off your "treasures" to the Observatory.
3. Include your name and all of your contact information as well as the dollar amount you want for your item.
4. Please indicate if you want to keep the money or donate a part or all of the money from your sale to the Observatory. It's that simple.

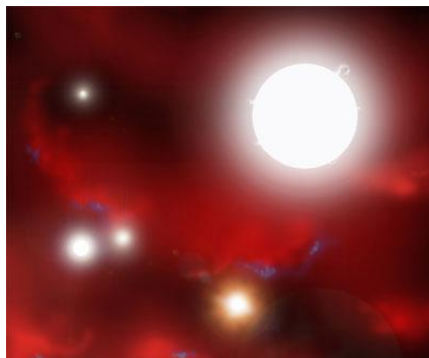
Contact rismiller@fuse.net so I will have an idea of what to expect at Scope Out.

Thanks for clearing out your unused items.

Ancient Galactic Magnetic Fields Stronger Than Expected

Mining the far reaches of the universe for clues about its past, a team of scientists has proposed that magnetic fields of ancient galaxies like ours were just as strong as those existing today, prompting a rethinking of how our galaxy and others may have formed. <http://spaceflightnow.com/news/n0807/28magneticfields>

The First Stars



In this artist impression, swirling clouds of hydrogen and helium gasses are illuminated by the first starlight to shine in the Universe. In the lower portion of the artwork, a supernova explodes ejecting heavier elements that will someday be incorporated into new stars and planets

The universe began with the Big Bang about 13.7 billion years ago. Very soon after that event, the first stars formed. Today, those stars are dead and gone leaving little evidence of their size and composition behind.

Now, a new computer simulation now offers the most detailed picture yet of how these first stars came into existence.

<http://spaceflightnow.com/news/n0807/31firststars>

Supervoids, Superclusters Point To Dark Energy

By studying regions of space with an above and below average concentration of galaxies - superclusters and supervoids, respectively - a team of astronomers have found direct evidence for the existence of dark energy.

<http://astronomynow.com/080730Supervoidsandsuperclusterspointtodarkenergy.html>

Stellar Vampires Make the Universe Dusty

For the first time, astronomers have witnessed the expulsion of a shell of dusty gas around a freshly erupted nova and tracked its evolution for over 200 days, providing a new and invaluable way of estimating the distances to nearby novae.

<http://astronomynow.com/080725StellarvampiresmaketheUniverseDusty.html>

Poster Person

By Marsie Hall Newbold



In addition to being asked to be a "spokes-poster person" for the Kentucky library READ program, **Dean Regas** was also invited to do the same for the Public Library of Cincinnati and Hamilton County.

Did You Know....

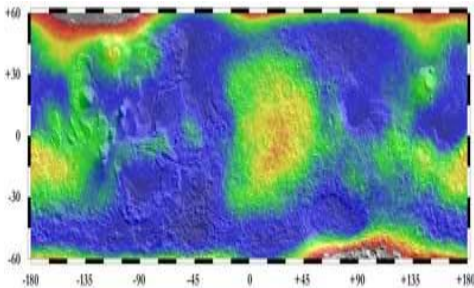
Even though Kuiper Belt objects have very weak gravity, they are able to pair up with other objects due to the gravitational drag generated by many other much smaller Kuiper Belt objects.

Phoenix Data Suggests Perchlorates In Mars Soil

An instrument aboard NASA's Phoenix Mars lander has detected what may be perchlorate in the soil of the red planet's northern latitudes, an unexpected, still tentative discovery that has touched off a flurry of speculation about whether Mars is now, or has ever been, habitable.

[phoenix/080805telecon.html](http://spaceflightnow.com/mars/phoenix/080805telecon.html)
<http://spaceflightnow.com/mars/>

New Maps of Mars Water



Water on Mars: Overlay of water equivalent hydrogen abundances and a shade relief map derived from MOLA topography. Mass percents of water were determined from epithermal neutron counting rates using the Neutron Spectrometer aboard Mars Odyssey between February 2002 and April 2003.

"Breathtaking" new maps of likely sites of water on Mars showcase their association with geologic features such as Vallis Marineris, the largest canyon in the solar system. The maps detail the distribution of water-equivalent hydrogen as revealed by Los Alamos National Laboratory-developed instruments aboard NASA's Mars Odyssey spacecraft.
<http://spaceflightnow.com/news/n0307/28marswater/>

'Cosmic Ghost' Discovered by Volunteer Astronomer



Hanny's Voorwerp: the green blob of gas believed to be a 'light echo' from the bright, stormy centre of a distant galaxy that has now gone dim.

When Yale astrophysicist Kevin Schawinski and his colleagues at Oxford University enlisted public support in cataloguing galaxies, they never envisioned the strange object Hanny van Arkel found in archived images of the night sky.

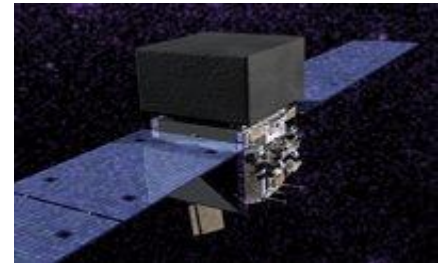
<http://spaceflightnow.com/news/n0808/05zoo/>

Did You Know....

An unfortunate dog was killed by a meteor at Nakhla, Egypt, in 1911. So? This unlucky canine is the ONLY creature known to have been killed by a meteor.

First Light for the Fermi Space Telescope

NASA's newest space telescope, formerly known as GLAST, has passed its orbital checkout with flying colors, kicking off a mission to explore the violent and unpredictable gamma ray universe.



Scientists expect Fermi, by observing energetic gamma rays, to discover many new pulsars, and reveal the inner workings of supermassive black holes.
http://science.nasa.gov/headlines/y2008/26aug_firstlight.htm?list739819

Hubble Finds Large Sample of Very Distant Galaxies



The picture shows Abell 2218, a rich galaxy cluster composed of thousands of individual galaxies.

New Hubble Space Telescope observations of six spectacular galaxy clusters acting as gravitational lenses have given significant insights into the early stages of the Universe.
<http://spaceflightnow.com/news/n0808/04hubble/>