

# Observatory News

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Bill Cartwright, editor [wcartw@aol.com](mailto:wcartw@aol.com)



## March Events At the Observatory

**March 1st – Stonelick Lake  
Star Party at dusk, backup  
date March 8<sup>th</sup>. Page 4.**

**March 6<sup>th</sup> - FOTO monthly  
meeting. 7:30 pm. Page 2.**

**March 7<sup>th</sup> – FOTOKids  
meeting, 7:30 pm. Page 3.**

**March 15-18<sup>th</sup> – Saturdays,  
8-10 pm. Page 2.**

**March 20th – FOTO  
planning meeting at Panera  
Bread (New location) in Hyde  
Park Plaza, 6 pm. Page 3.**

**March 25<sup>th</sup> – Humanities @  
the Observatory lecture.  
Fr. Michael Graham 7:30  
pm. Page 3**

## *The Word* from FOTO's President Bosse

I take back everything I ever said about nasty Cincinnati winter weather. As the days progressed towards the evening of the Total Lunar Eclipse on February 20th, I was convinced that Cincinnati's luck with astronomical atmospheric conditions would continue on its normal course presentation of dense cloud cover and snow and/or freezing rain and/or fog and/or locusts and/or I will take the cold of February if it comes along with the surprisingly clear skies of February 20th.

I had a strong interest in this particular eclipse because it was the first time while teaching Astronomy that I actually had such an event occur during a class. Showing pictures and talking mechanics can only go so far in describing an eclipse event. Seeing a real eclipse is just what the doctor ordered for many students. I had been talking up the eclipse for weeks in class(es), getting my students all excited (as

excited as college students can get about things academic) about this well-timed eclipse for Cincinnati.

My excitement was met with a bit of tolerant boredom from some students until that Wednesday night after class. Walking out with a few students after class, glancing up and seeing the moon already half consumed by the Earth's umbra, was (in the lexicon of the day) "awesome," "sick," "phat," and several other terms that I have no idea what was meant. I can only assume a positive indication.

As always, there were quite a few students moving about campus that night and as my crew dispersed and mingled with the unknowing, I began to see fingers and gazes directed skyward. Brief discussions followed by committed stares at the moon. Students of Astronomy had become Astronomers turning ordinary students into students of Astronomy.

My University duties caused me to miss the event going on at the Observatory, but I'm sure similar activities prevailed. The expansion of understanding of the Universe brought home so strongly by such a simple event, the mere casting of a shadow. Ordinary citizens become students of Astronomy, ordinary students of Astronomy become

Astronomers. But, perhaps not such ordinary citizens, folks come to the Observatory seeking answers. Something brought them out to the Observatory, and I think it was more than just the clear skies.

More clear skies to all!

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## The March FOTO Meeting

Thursday, March 6<sup>th</sup>, 7:30 pm

By *Dave Bosse*

Last month's general meeting program was a bit of a hodgepodge of images garnered from the Astronomy Picture of the Day. This website is a great resource for amazing images of all kinds astronomical and otherwise. Just Google APOD and you'll be there in no time. They have great archives going back many years with explanations and descriptions. We, fortunately, had **Steve Rismiller** to help identify some of the more esoteric southern hemisphere nebulae. Steve was the obvious winner of the informal game we were playing, loosely called "What's That?"

The March program will prove to be most interesting and informative, as **Eric Africa** will be filing us in on some tips on his approach to Astro-imaging. Eric is one of the photographers who supplied images for our wonderful *Deep Sky Treasures* Calendar. Whether or not you have an interest in taking astro-photos of your own, Eric's program is bound to entertain, educate, and amaze. Don't miss this one.

The March general FOTO meeting will be held at the Observatory at 7:30 P.M. on the evening of Thursday, March 6<sup>th</sup>. Come on out to the world's hippest Astronomical gathering in town.

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## Saturdays

### Four Nights to Experience the Ringed Planet At the Observatory

March 15-18, from 8-10 pm

Mars may get the headlines, but no planet is more breathtaking than Saturn.

The Lord of the Rings takes center stage for four nights of viewing called **Saturdays at the Observatory**.



There will be programs about Saturn, tours of the buildings, and viewing through the historic 1843 and 1904 telescopes (weather permitting). The Moon and Orion will also be observed.

Reservations are required for the classes, but no reservations are needed for viewing. Drop-ins are welcome.

Cost: Just \$4 per person.

To make reservations for the classes **please call 513-321-5186**.

For more information visit: [www.cincinnatiobservatory.org](http://www.cincinnatiobservatory.org)

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## Win a Meteorite at FOTO Meeting?

By *Linda Magee*

EVERYONE who attends the March 6 FOTO meeting is eligible to win a meteorite.

I'm highlighting (everyone) because initially officers, employees, COC-FOTO rep, and historian were NOT eligible. Now they are eligible.

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## Dean Regas

### "10 Years of Teaching Astronomy"

By *Craig Niemi*

Congratulations to COC *Outreach Astronomer* **Dean Regas** for 10 years of shaping minds, young and old! Dean is the heart and soul of the Observatory's educational program and he continually receives high praise from students and teachers alike. Much of the Observatory's success is a result of his excellent skills and dedication as a teacher!



## Did You Know....

Supermassive black holes may be the central players in the formation of all galaxies.

## Humanities @ the Observatory in March

Xavier University: History, Mission and Community Since 1831



Fr. Michael Graham, President of Xavier University  
March 25<sup>th</sup>, 7:30 pm at the Observatory. Cost is \$10, \$5 for students and Observatory members.

Xavier is an educational community dedicated to the pursuit of knowledge, to the orderly discussion of issues confronting society; and, as would befit an American institution grounded in the humanities and sciences, Xavier is committed unreservedly to open and free inquiry. Xavier's 34th president is Michael J. Graham, S.J., who was inaugurated in fall 2001. Graham has been with Xavier for nearly 20 years, beginning his work here as an adjunct professor of history. He entered the Society of Jesus in 1978 and was ordained as a priest in 1988.

## FOTO Planning Meeting

*By Dave Bosse*

The March FOTO planning meeting will be on the **20th of March, at 6:00 P.M.** The Hyde Park Tavern has proven to be just a bit too noisy for our gatherings (noisier than we are!). In the seemingly endless saga to find the proper cuisine and ambiance to accompany our planning discussions, we will be meeting this month at **Panera Bread in the Hyde Park Plaza.**

All members of FOTO are invited to attend any and all of these spirited assemblies. Your input is needed, desired, welcomed and appreciated.

## FOTOKids March Meeting

*By Dean Regas*

Thank you to all who made the February meeting at the Wolff Planetarium. We hope you enjoyed the field trip "under the stars." If you have any suggestions about future field trips for FOTO Kids, please tell Dean.

**The March meeting for FOTO Kids will be on Friday, March 7, 7:30 pm (note the new time)** at the Observatory.

Dean Regas will tell you "All About Orion" including a humorous recreation of the entire winter sky. We will meet a big hunter, two dogs, a bull with seven women on its back, a unicorn and bunny rabbit down by the river. Make sure to bring your notebooks, stars charts, and binoculars. Call Dean at 513-321-5186 if you have any questions.

## NEW Class Series for Members

*By Dean Regas*

Interested in learning more in-depth astronomy? Want to hear it from our local astronomy experts? Not afraid of a little math? We are beginning a monthly series for members to delve deeper into a variety of astronomy topics. Inspired by Paul Nohr's classes of old, we will feature a rotating cast of presenters that will bring you a variety of subjects and tangents.

These classes will meet the third Wednesday of every month from 7-9 pm.

Leading us off will be **Dr. Mike Sitko** from the University of Cincinnati who will present: "The Development of Planetary Systems" on March 19, 7 pm. Please call Dean Regas at 513-321-5186 to register.

Future presenters include: **Dr. Roger Burgess, Dr. Terry Flesch, Dr. Scott Nutter, Dr. Ray McNeil, and Dr. Marco Fatuzzo.** We are amassing quite a line-up of the finest astronomy educators in the tri-state and hope you can join us.

All classes are open to the public but free for members.

## March's Trivia Question

*By Greg Huber*

Which U.S. space program was the first to invite U.S. high school students to propose experiments to be performed in space?

February's Trivia Question:

Name the first child whose parents had both flown in space.

The Answer

The first child on Earth whose parents both flew in space is Elena Nikolayev. She is the Daughter of Andrian Nikolayev and Valentina Tereshkova.

## Craig's Corner

By Craig Niemi, Executive Director  
of the Observatory

Finally, a clear night! After what so far has been a rather grey, drab, overcast winter, the skies cooperated for the Lunar eclipse back on the 20<sup>th</sup>. It was a sight to behold. We hope you took the opportunity to visit the Observatory or at least brave the chilly night from your own backyard. Over 300 visitors came out on a very cold night to enjoy the view through the old scopes, the ambience of the buildings, and the hospitality of our volunteers. Thanks to our dedicated volunteers for coming out on a weekday evening and braving the cold. The response from our visitors, as always, was terrific. Hopefully this is a sign that we're closing out winter on a positive astronomical note.

Spring brings the promise of better weather, more outreach programs and more visitors. There are many events on the calendar for March and early April. Four nights for *Saturn Days* and Fr. Michael Graham's *Humanities* lecture on the 25<sup>th</sup> are a couple of the highlights in March.

Design and engineering work continues on the *Paul Nohr Memorial Sundial* with ground-breaking to begin as soon as the weather improves. Thanks to RWA Architects for all their support of the project and thanks again to everyone who contributed to last year's campaign. This spring's appeal will again in Paul's honor and will focus on the educational mission of the Observatory. Notably to increase our capability to reach under-served students who would not otherwise have the opportunity to take part in our many programs.

Work is also progressing in the Herget building for a springtime completion. The bookcases are

underway and their installation will be coordinated with the plaster restoration work that will start soon. Thanks to everyone who helped with floor refinishing project. Packing and unpacking all the books & artifacts and installing felt on all the furniture as it was being moved back in, were huge jobs.

We're excited to announce our new "***Astronomy Lecture Series***" which will feature guest speakers from UC, Xavier, Cincinnati State and other local colleges and universities, as well as, our own talented staff. The series will include topics for all interest levels and act as a venue to showcase the professional level research and educational work that is being done by local astronomers. **This monthly series begins on Wednesday March 19<sup>th</sup> with Dr. Michael Sitko from UC.** The series is free to members and open to the public for a nominal charge.

There is also *Sunday-Sundae-Sun Day* on April 6<sup>th</sup> which features presentations and safe viewing of the Sun and free ice cream sundaes for all visitors. Now we got your attention.

See you at the Observatory!  
Craig

## March's Word

By Greg Huber

### "Sputtering"

Word for February: Hard X-Rays"

#### The Answer

Hard X-ray are higher energy X-ray that range from .4 to .012nm in wavelength.

## Did You Know....

When planes fly over the poles during solar storms, they can experience radio blackouts, navigation errors and computer reboots.

## Humanities @ the Observatory in April

### *Using the Best of the Past to Build a Future*



Roxanne Qualls, Cincinnati  
Council Member  
Speaks Tuesday, April 22nd,  
7:30 pm.

Ms. Qualls previously served three terms as Mayor of the City of Cincinnati from 1993-1999. After leaving office due to term limits, Roxanne went to Harvard University where she served as a fellow in the Institute of Politics, a Loeb Fellow in the Graduate School of Design, a Malcolm Weiner Fellow in Social Policy at the Kennedy School of Government, and in 2002 earned a Masters degree in Public Administration.

She returned to Cincinnati in 2004 and taught in the Masters of Public Administration program at NKU and served as Director of Public Leadership Initiatives. Prior to serving in elected office, Ms. Qualls served as director of the Cincinnati office of Ohio Citizen Action, Director of Women Helping Women, and Director of the Northern Kentucky Rape Crisis Center.

## U.C. Communiversity April Classes at the Observatory

By John Ventre

Join people with similar interests as you broaden your horizons, develop a new talent or interest, or acquire skills designed to help you succeed. Classes are noncredit, short term, affordable, informal, and pressure free (no exams or homework). Hundreds of classes are offered year-round. Offered through the University of Cincinnati, classes are taught by the COC Astronomy staff and members and held at the Cincinnati Observatory Center.

For course information and to register, please call U.C. Communiversity 513-556-6932 or visit the Communiversity website ([www.uc.edu/ace/commu](http://www.uc.edu/ace/commu)).

### Behind the Scenes at the Observatory

Look to the heavens through potentially the oldest continuously used telescope in the world; explore the depths of the 1873 observatory including its attic and basement; and learn why President Adams laid the observatory's original cornerstone in 1843. Hear the fascinating history of the founding of the observatory; investigate how the 19th century astronomers determined time for the city of Cincinnati; discover why the observatory was designated a National Historic Landmark; and find out what is planned for the observatory.

The class will be taught by **John Ventre**, the Observatory's Historian, on **Tuesday, April 15, 7:00-9:00 pm**. The fee is just \$18. Enroll in class #1207-01.

### Saturn

Examine Saturn, its rings and many moons, from discovery through the

Voyagers' close encounters! Learn about the disappearing rings phenomenon and Galileo's puzzlement. If weather permits, you will see this fascinating planet through the Observatory telescope.

The class will be taught by **Basil Rowe**, a Presenter for the COC, on **Monday, April 21, 8:00-10:00 pm**. The fee is just \$18. Enroll in class #1309-01.

### Stonelick Lake Star Parties

By Scott Naylor

Our next Star Party will start at dusk on **Saturday, March 1<sup>st</sup>**, with a rain or snow date the next Saturday, March 8th.

April's meeting will be on the 5<sup>th</sup> with a back-up on April 12<sup>th</sup>.

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

### Paul Nohr's Memorial Sun Dial Plaque

By John Ventre

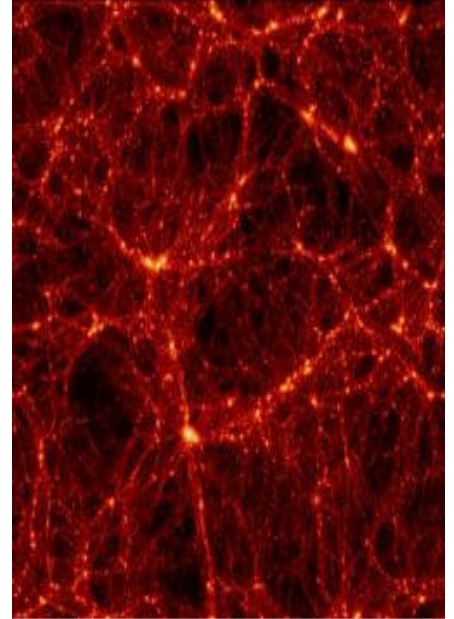
Submittals are being accepted for the wording for Paul Nohr's Memorial Sun Dial Plaque. Submittals are due no later than March 20th.

Please forward your suggestions to John Ventre [jventre@ix.netcom.com](mailto:jventre@ix.netcom.com). The Sun Dial Committee and the COC Board Executive Committee will make the final selection.

### Did You Know....

Scientists have created a new category to describe small bodies orbiting among the planets. They're called "Centaur", a combination of a comet and an asteroid.

## Record Breaking "Dark Matter Web" Structures Observed Spanning 270 Million Light Years Across

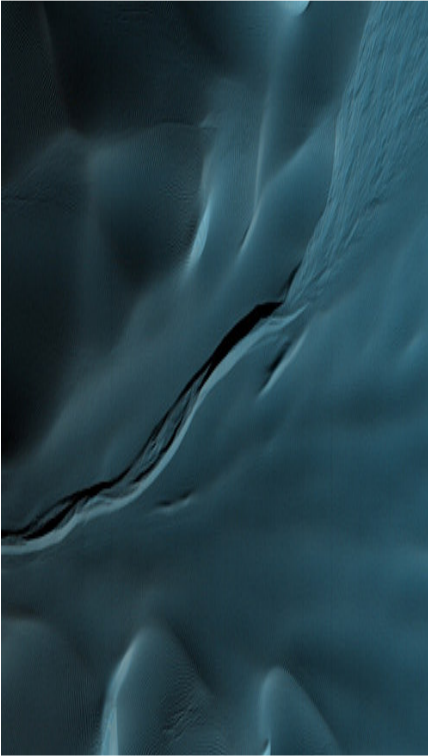


It is well documented that dark matter makes up the majority of the mass in our universe. The big problem comes when trying to prove dark matter really is out there. It is *dark*, and therefore cannot be *seen*. Dark matter may come in many shapes and sizes (from the massive black hole, to the tiny neutrino), but regardless of size, no light is emitted and therefore it cannot be observed *directly*. Astronomers have many tricks up their sleeves and are now able to *indirectly* observe massive black holes (by observing the gravitational, or lensing, effect on light passing by).

Now, large-scale structures have been observed by analyzing how light from distant galaxies changes as it passes through the cosmic web of dark matter hundreds of millions of light years across.

<http://www.universetoday.com/2008/02/25/record-breaking-dark-matter-web-structure-observed-spanning-270-million-light-years/>

## And a River Ran Through It



A gully cuts through the eastern edge of a dune field in a large, degraded crater in the Martian southern hemisphere, as seen by the Mars Reconnaissance Orbiter HiRISE camera.

Gullies are features found on slopes and dunes in the mid-latitudes of both hemispheres. Scientists speculate that both slope and dune gullies may be a result of liquid water from the surface or subsurface. Dune gullies are more linear and have levees bordering their channels, without alcoves or debris formations. Slope gullies often have deeply incised alcoves and channels that resemble water-carved features such as streamlined islands.

This dune field is unusual in that one of its gullies has features more similar to that of a slope gully, with a deeply cut alcove and what appear to be streamlined islands on the channel floor.

[http://www.space.com/imageoftheday/image\\_of\\_day\\_080219.html](http://www.space.com/imageoftheday/image_of_day_080219.html)

## Welcome New & Renewing FOTO and COC Members!



Ron Boenau  
Fred Bowman  
Jason Currie  
Terry Endres  
Robert Flischel  
Daniel & Anne Gentile  
Jack Hazen  
Steven & Robyn Lince  
Ron Masters  
Arthur & Carol McCardle  
James Morrow  
Gayle Ruff  
Bruce & Karen Safriet  
Michael Sitko  
George Slama  
Mike & Julia Spohr  
Tony & Jessica Stieritz  
Gary Street  
Kenneth Wolf

## Thanks to the Volunteers

*By John Ventre*

A huge thank you to the volunteers who worked many hours to unpack the boxes of books and display material following the floor refinishing project. Incidentally, the refinished floors look great!

Thanks to **Bill Bachelder, Diana Batch & her son, Hallie Dovich, Terry Flesch, Jim & Lola Gabel, Scott & Michelle Gainey, Dan & Zane Kuntz, Denise Mustain, JoAnne & Poul Pedersen, and Dale Zoller.**

Thanks also to the office staff of **Craig Niemi, Dean Regas, Roger Burgess and Lola Gabel** for pulling everything back together.

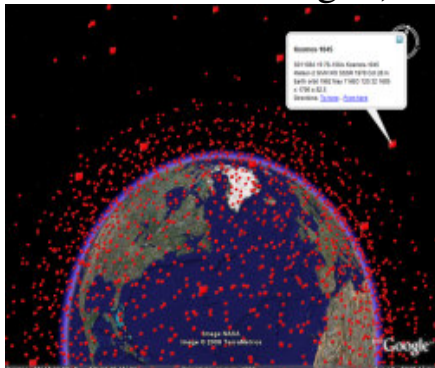
## Valles Marineris, the Deepest Chasm in the Solar System



Here's an example of one of the extreme places on Mars: the Valles Marineris the deepest, longest valley in the Solar System. The image was captured by ESA's Mars Express spacecraft and reveals a region of the valley called Candor Chasma.

<http://www.universetoday.com/2008/02/19/valles-marineris-the-deepest-chasm-in-the-solar-system/>

## Space Debris May be Catastrophic to Future Missions (and Google Earth is Watching...)



Kessler Syndrome could be a frightening situation for space travel. No, it's not a health risk to the human body in zero-G and it's not a psychological disorder for astronauts spending too much time from home. Kessler Syndrome is the point at which space travel becomes impossible without hitting into a piece of space junk, jeopardizing missions and risking lives.

In extreme conditions due to our constant littering of low Earth orbit, collisions between bits of rubbish may become more and more frequent, causing a catastrophic cascade of debris multiplying exponentially, falling through the atmosphere and making space impassable.

<http://feeds.feedburner.com/universe/today/pYdq>

## Packing Boxes for Sale

Are you planning on moving or do you know someone who will be moving?

Now that our floor restoration project is complete we have about 75 used cardboard packing boxes for sale. The boxes have been used once. They are 16" x 12-1/2" x 12-1/2" @ \$1:00 per box.

Contact Craig Niemi at [observatory@fuse.net](mailto:observatory@fuse.net) or call him at 513-321-5186, extension 1.

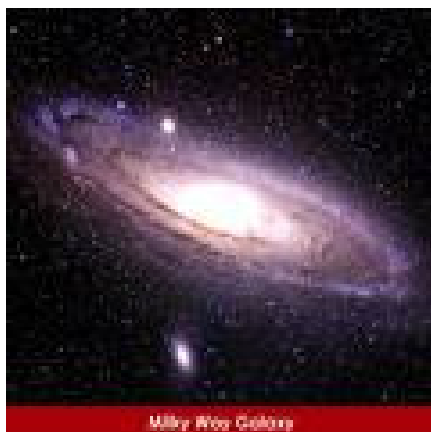
## Astronomers Confirm Existence of Heaviest Known Black Hole in Universe

Astronomers have confirmed the existence of the heaviest known black hole in the Universe. The black hole known as IC 10 X-1, discovered in 2007, is between 24 and 33 times the Sun's mass.

The previous record holder is a black hole in the nearby galaxy M33. Called M33 X-7, it was measured to have 16 times the Sun's mass.

<http://www.dailyastronomy.com/story.asp?ID=265269&Title=Astronomers>

## The Milky Way is Twice As Thick As Thought



Computer generated rendition

Imagine suddenly realizing that your house was twice as big as you originally thought. Okay, maybe that's a little out there, but astronomers from Australia have calculated that the Milky Way is actually twice as thick as previously believed - doubling from the originally estimated 6,000 light-years to 12,000 light-years. <http://feeds.feedburner.com/universe/today/pYdq>

## Sun-day Sunday Sundaes At the Observatory

Sunday, April 6<sup>th</sup>, 1-4 pm

What do astronomers do during the daytime? They stare at the Sun... safely.

The Sun is the star attraction and you can learn all about our nearest stellar neighbor. Sun-day Sunday Sundaes includes hourly programs about the Sun, tours of our historic buildings, and safe viewing of sunspots and solar flares out of our 1843 telescope (weather permitting).



*As a special treat we will also have free sundaes for those in attendance.*

Advance reservations are required - space is limited. Cost \$5. For further information or to make reservations, please call 321-5186.

## Moon Maps

The Lunar and Planetary Institute has hundreds of beautifully shaded relief maps of prominent Lunar features and Landing site charts - free to download:

<http://www.lpi.usra.edu/resources/m/catalog/>

## Did You Know....

A fifth planet has been discovered orbiting around 55 Cancri, a star 55 light years away. This star now holds the record for the highest number of planets discovered. The newly discovered planet is about 45 times as massive as Earth and lies within the "habitable zone" of that star.