

Observatory News

May 2011
513-321-5186

Published by the Friends of the Observatory
www.cincinnatiobservatory.org Bill Cartwright, editor

Volume 22 No. 5
wcartw@aol.com



Coming Up At The Observatory....

May 4 Noon COC Annual Meeting
May 5 7:30pm FOTO Meeting
May 6 8:30pm FOTOKids
May 7 7:45 Stonelick Stargaze
May 7, 7:45 Idlewild Park Stargaze, Florence, KY
May 8 1-4pm History Tours
May 8 7pm A2Z Class
May 12 & 19 8:30pm Astro Thursday
May 13 & 20 8:30pm Astro Friday
May 14 Keener Park Stargaze
May 14 9pm Saturn Day
May 15 & 22 1-4pm Sun Sunday
May 16 7pm Look for Other Earths*
May 21 10-2 Space Day @ iSpace
May 26 8:30pm AstroThursday
May 27 8:30pm Astro Friday
May 28 7:45 Stonelick Stargaze
June 2 7:30pm FOTO Meeting
*UC Commiversity

The Word

By Dale Zoller

I recently came across an article on *Time.com* titled "*Hunting for Planets from the Comfort of Your Own Home*" by Michael D. Lemonick. The article is about the **Kepler** satellite's search for planets around other stars – and how you can help. In the two years the satellite has been in orbit, it has identified over 1,200 "candidate planets" (as they are referred to until confirmation). Kepler constantly stares at over 150,000 stars looking for the tell-tale dips in luminescence that could indicate the transit of a planet across the face of a star. The Kepler science team has created software that sifts through the data looking for the patterns that could reveal a planet orbiting a star. However, as nothing beats the human eye for pattern recognition, Kepler project scientist Debra Fischer developed a program called Planethunters.org that allows

amateur astronomers to assist in locating "candidate planets" that the computer programs may have missed. In the few months the site has been in operation, the more than 22,000 visitors to the website have found nearly 50 potential planets.

You don't have to have an advanced degree in astronomy to participate in the program. The website has tutorials to show you what to look for (a series of regular dips in a given star's "light curve" – a graph of its brightness over time) and how to mark them. You are also asked several questions about the star's pattern that help categorize it.

According to Fischer, some participants stay a short time while others have analyzed hundreds – even thousands – of stars. If enough users highlight the same area of a particular star's light curve it is forwarded to the science team for further analysis. If you register at the site you get access to the "most interesting" stars and can receive recognition for your work. "When users prove unusually good at spotting potential planets," says Fischer, "we upgrade them, and weigh their opinions more heavily." In preparation for writing this article, I went to the site and gave it a try. The "tutorials" and directions

are fairly easy to understand. After registering, I got started. I intended to do a “few” stars and then start writing. A “few” became ten. “OK, I’ll do one more and then start writing.” Finished that one and then the next graph appeared. “Wow, that one is really interesting! One more won’t hurt.” And so it went for a “few” more – it really is addicting. If you decide to try it, be sure you don’t have anything really pressing to do in the next hour or two.

FOTO’s May Meeting

By Tom East

The May 2011 FOTO meeting will be held on the first Thursday of the month, May 5th at 7:30pm in the west wing of the Herget Building at the Observatory. This month’s presentation will be “Cincinnati’s Hyde Park: A Queen City Gem” by Gregory P. Rogers, a resident of Hyde Park since 1989. Greg will discuss the settlement and development of the Hyde Park and Mount Lookout areas and the story of how the Observatory came to be located there. Details of this story can be found in his new book of the same name - *Cincinnati’s Hyde Park: A Queen City Gem*.

Don’t forget, we also have an informal dinner before the meeting around 6pm at Panera Bread in Hyde Park Plaza.

Upcoming FOTO Programs

May: Greg Rogers will present “History of the Observatory and Its Neighborhood-Hyde Park”

June 2 - Human Spaceflight to Near Earth Asteroids by FOTO member Jerry Black

July 7 - Annual FOTO Picnic on the Grounds. Loaner telescopes will be on display.

April FOTO Meeting Highlights

By Dale Zoller

Dr. Mike Sitko presented *The Red Rectangle: Bizarro Star or Rosetta Stone*. This object, discovered in 1975, has been the subject of much research. It appears to be a binary star surrounded by a rectangular shaped nebula. The shape of the nebula can be explained by the dynamics of the binary star system. The spectral emission lines are unusual and indicate the presence of an as-yet unidentified organic molecule (thought to be some kind of polycyclic aromatic hydrocarbon) in the nebula.

COC Director: Craig Niemi:

- There will be an event on 4/14/11 celebrating the First Light for the Mitchel Telescope, which saw first light on 4/14/1885.
- Craig encouraged everyone to participate in the CAS 100 year celebration on 4/23/11.

COC Representative: Scott Gainey:

The COC Board meeting will be in May. FOTO needs to present a recommendation to the Board on how to handle the issue of COC/FOTO volunteers who are not members. COC was previously insured by University of Cincinnati, now will be self-insured. This led to the recommendation that all volunteers who will have contact with the public should be members of COC/FOTO. John put forth a motion that FOTO make the following recommendation to the Board: “All COC volunteers who have contact with the Observatory’s patrons, be it the public, school groups or others, at events on-site

or off-site, shall be members of COC/FOTO.

New Business:

- **Steve Rismiller** announced that the Sun is getting into an active phase, with lots of sunspots, prominences and other activity and encouraged everyone to look at photos on line, or use a solar scope if they have access to one.
- **Dave Bosse** will resume the A2Zastronomy lectures on Sunday, April 10 at 7 PM. There will also be a lecture on May 8, no lectures in June or July.

Next FOTO Meeting: Thursday May 5, 7:30pm: The speaker will be **Greg Rogers: *The History of the Observatory and its Neighborhood, Hyde Park.***

Enjoy Springtime at Stonelick State Park May 7th & 28th

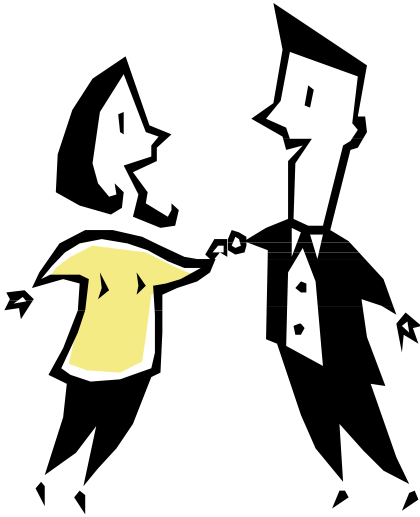
By Craig Niemi

The stargazes are free and open to Observatory members, teachers, scouts, and the general public wanting to learn the night sky, learn how to use their telescopes, or research which scope is best for them all the while enjoying the company of Observatory members. Stargazes are held “clear skies” only. Check the website’s Public Events/ Free Stargazes or Calendar Pages for any updates.

Did You Know....

You can watch **Dean Regas** online on Stargazer anytime! Just go to: <http://www.jackstargazer.com/>

Welcome
New & Renewing
Members!



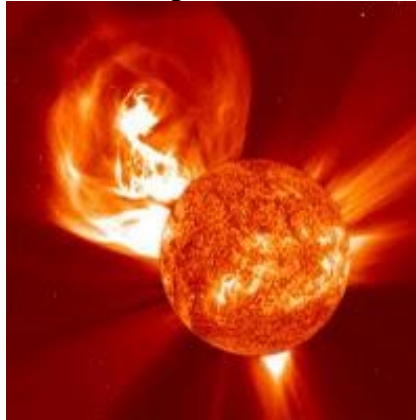
Lina Alkawahwi
Kristine Bebel
Dave and Peggy Bosse
Sarah Boyer
Kelly Dobos
John & Judy Eilers
Yasmeen Fowler
Lola and Jim Gabel
Ralph and Marzetta Goldsmith
Kimberly & Loy Gregory
Roger Guffey
Mary Lou Hoffar
Bill and Mary Hopple
Erin Knecht
Judith Larsen
Kristin Maly and Joe Vitucci
Vicky Mary
Art and Carol McCardle
Sarah & Larry Merck
Marsie and Tom Newbold
Lori Pieper
Soheil Pourshahian
Kevin & Jamyann Rollinger
Valerie Scott
Peggy Selonick
Grant and Mary Stewart
Bob Stiens
Leonard & Linda Troy
Jason Voegele
Tess Wulsin
Everett and Margie Yowell
Gregory Yudovich
Wade & Heather Yuellig

Sun-Day Sunday
Sundae

Sunday May 15 and 22,
1-4pm

Astronomy and ICE CREAM!!
What could be better?

The Sun is the star attraction on these two Sundays. You can learn all about our nearest stellar neighbor. Sun-day Sunday Sundae includes hourly programs about the Sun, tours of the historic buildings, and safe solar viewing of sunspots and solar flares out of our 1845 telescope (weather permitting). Great for all ages!



As a special treat we will also have **free ice cream sundaes** for those in attendance. Cost just \$6 per person. Advance reservations are required - space is limited. Call 513-321-5186 to register.

FOTO Planning Meeting

By Dale Zoller

The next FOTO Planning Meeting is scheduled for **Thursday, May 19, 2011** 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.

**FOTOKids &
FOTOTEENS Meeting**

By Dean Regas

FOTOKids will meet on Friday, May 6, 8:30pm (**notice the later time due to daylight saving time**). We will continue having two groups – FOTOKids for members aged 6-9 and FOTOTEENS for members aged 10-15. Leo Sack will lead FOTOKids again while FOTOKids creator Chuck Strubbe will present a program for the FOTOTEENS.

We're hoping for good weather to try out our brand new batch of telescopes. We want each student to be comfortable using telescopes and finding objects. Saturn will still be in great shape to view.

If you have any questions please contact Leo Sack at leo@cincinnatiobservatory.org

**More Free Stargazing
Keener Park &
Caesars Creek Stargazes**

By Craig Niemi

Free public stargaze hosted by astronomers from the Miami Valley Astronomical Society, the Cincinnati Astronomical Society and the Cincinnati Observatory. The stargazes begin at dusk. Come on out and join the fun!

Keener Park, Barrett Road in West Chester.

Saturday, May 14th
(rain date May 21)

Saturday, September 10th
(rain date September 17)

Caesars Creek Stargazes.

Saturday, June 11th

Saturday, July 9th

Saturday, August 13th

Craig's Corner

By Craig Niemi

Craig's Corner
May 2011

If April showers bring May flowers we're going to be up to our proverbial eyepiece soon.

Speaking of flowers, how many astronomical flowers can you name? Sun Flower, Venus Flytrap - too easy. How about Moonbeam Coreopsis or Heliotrope? Stop by the Observatory this month and compare your list to the one we've compiled. And email us photos of your "astronomical garden" when it blooms.

Spring also means it time for the Observatory's Annual Meeting. Our thanks to trustees **Jim Steiner and Denny Young** who are leaving us this month. We appreciate all your years of dedication and service to the Observatory. With your insight and efforts we've made great progress forward!

At last month's 1st Thursday FOTO meeting it came to our attention that while the Observatory is becoming well known in the community, some of the education organizations that we collaborate with, may not be as yet. What follows is a short listing of a few of the many terrific centers that are doing great work in the Greater Cincinnati region.

The Cincinnati Astronomical Society. Celebrating 100 years of sharing the night sky.
www.cinastro.org

The Miami Valley Astronomical Society. Serving the Greater Dayton area as well as Butler and Warren counties.
www.mvas.org

iSpace. Check out their 7th annual Space Day on May 21st.
www.ispace-science.org

Drake Planetarium. Located in the Norwood High School, **Pam Bowers** and her staff offer planetarium shows, classroom and family programs.
www.drakeplanetarium.org

The Haile Digital Planetarium NKU offers K-12 and public programs in their state-of-the-art facility.
<http://pget.nku.edu/planetarium/index.php>

Wolff Planetarium. Both **Dean & Leo** started their careers at the Wolff.
www.cincinnati-oh.gov/cityparks/pages/-4330/

Cincinnati Nature Center. Inspiring a passion for nature and now offering an astronomy club for its members.
www.cincynature.org

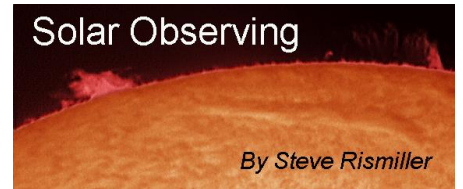
Greater Cincinnati Environmental Educators. The popular Great Outdoor Weekend is just one of the programs offered by GCEE members.
www.gcenvironmentaleducators.org

Museums and Historic Sites of Greater Cincinnati. Each site offers unique perspectives on local history and culture through public programs, exhibits, lectures, and tours.

Nearby Asteroid Flyby

A 50-meter asteroid flew past the Earth-Moon system on April 15th. There was no danger of a collision, but the 50-meter space rock is remarkable. It is elongated and spinning, which causes the asteroid to flash like a strobe light in amateur telescopes. <http://spaceweather.com>

Solar Observing



April is the month that brings spring to the Cincinnati area. If you are an astronomer or telescope nut, then April brings the North East Astronomy Forum (NEAF) in Suffern, NY. This year Lou Freese and I made the trip along with 5 others from the CAS. While there, we met up with JoAnn and Poul Pedersen in the field house of the Rockland Community College. Well over a hundred dealers and manufacturers were there showing their telescopes, cameras, and observing accessories.



Out in the courtyard a group of solar astronomers were set up and showing a very active solar disk. Barlow Bob, pictured above, proudly displays his telescope fitted with a 90mm H-alpha filter and binocular viewer. Stephen Ramsden had 4 tripod mounts with as many as two filtered scopes on each mount. There were big prominences, filaments, and sunspots to observe with these fine instruments. What a day for solar observers.

UC Communiiversity May Classes

By Craig Niemi

Classes for life-long learners taught by Observatory's talented staff and volunteers. The courses have been very popular with members since they offer a more in-depth presentation than our usual Astro Thursday or Friday programs.

Monday, May 16th – "Looking for Another Earth". Cost per course \$18. To register or for information on future classes call UC at 513-556-6932.

Saturdays At the Observatory

Saturday, May 14, 9-11pm

By Dean Regas

After a year in hibernation the rings are back – and in prime time!

The magnificent planet, most breathtaking object in the universe, Saturn, takes center stage at the Observatory for Saturdays. And this month you can see it for yourself.

There will be classes about Saturn, tours of the buildings, and viewing through the historic 1845 and 1904 telescopes (weather permitting). The Moon will also be observed.

Reservations required for the classes at 9pm and 10pm.

No reservations are needed for just viewing. Drop-ins welcome.

Cost: \$6 per person.

Great for all ages.

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

For more information visit: www.cincinnatiobservatory.org for all ages. Cost: \$6 per person.

More A2Z+ Astronomy in May

Back to Basics: *The Sky*

By Dave Bosse

At last month's kickoff A2Z+ Astronomy gathering, we opened with a few topics of Optics. *Clearly* a deep subject, we did, at least, *scratch the surface* with an introductory *reflection* on this material.

In the upcoming May installment, we're going to get back to basics with the sky. Basil Rowe will be handling the reins this time, and he'll be giving us the answers to all sorts of questions. What's up there? What can you see? Where is it? How do you find things? What is it? Heck, why is the sky blue? Just to name a few. If you have a telescope (or don't have a telescope), this class is the one for you.

We're also going to take a look at the planisphere, so if you've got one, bring it along. If you don't have one, don't let that keep you away, we'll have plenty of loaners on hand. This should be fun!

The A2Z+ classes are held on the second Sunday of each month at 7:00 P.M. in the west wing of the Herget Building. So **May 8th** finds us at the Observatory for a sky-widening experience. The A2Z+ classes are free to all members of the Observatory and all are welcome. Please, come join us.

Due to conflicts with scheduled events at the Observatory, the A2Z+ classes will not meet in June and July.

Did You Know....

The maximum size of forming stars will get smaller and smaller in the future.

Word of the Month

By Greg Huber

"Yohkoh" (no connection to the Beatles)

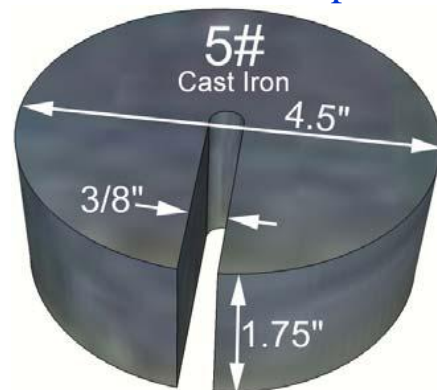
Word for April: "Whistler" (in Radio Astronomy)"

A *whistler* is a Radio Astronomy phenomenon where audible signals of falling pitch are observed. Whistlers are caused by distant lighting reflected by the ionosphere back to the ground.

Did You Know....

Galileo discovered craters on the Moon, that the Milky Way is made up of a large number of stars, sunspots, the major moons of Jupiter; and the phases of Venus.

Weights Needed! Can You Help?



The 1845 Merz & Mahler Telescope's weight driven, governor-controlled clock drive has been restored, but 65 pounds of weights that power the drive are missing.

We need 13 five-pound weights with the dimensions per the above sketch. If you know where we can obtain any of these please let **John Ventre**, the Observatory's Historian know, jeventre@ix.netcom.com. Thanks to Lee Hite for the artwork!

Dean with Rollergirls and Marsie

The Cincinnati Rollergirls rolled into the circle in front of the Observatory this past Easter Sunday for a demonstration of their sport and skills. Outreach Astronomer **Dean Regas** suited up and skated along with them. A great time was had by the 200 plus people who attended the free event which included an Easter egg hunt and tours of the buildings. This was just one more example of the Observatory's excellent Outreach programs!



Here's a photo of Marsie Hall Newbold, our volunteer publicist and Dean Regas with the Cincinnati Rollergirls. Marsie is the one wearing the Easter bonnet and Dean is the one with the great big smile on his face! (We always knew he could teach, who knew that he could skate? The things he won't do to spread the word about astronomy!)

A Stripy Supernova Explosion

New observations of the well-studied Tycho supernova remnant by the Chandra X-ray Observatory have revealed a pattern of stripes never before seen in a supernova explosion, which could be responsible for Earth-bound cosmic rays.

<http://www.astronomynow.com/news/n1103/25tycho/>

FOTO Bylaws Modification Proposal

By Dale Zoller

At the April 21, 2011 meeting of the FOTO Planning Committee, the following modifications to the FOTO Bylaws were proposed:

1. Move the FOTO president's "annual report" from the March issue to the month of the COC Annual Report issue.
2. Add an annual Treasurer's report to the membership.
3. Eliminate the restriction on the FOTO-COC representative serving as a COC officer.

We will discuss these modifications at the May and June FOTO meetings. However, due to time constraints, these issues will probably not be brought to the membership for a vote until the August 2011 FOTO meeting.

Did You Know....

Dark spots on the Sun are about 1,000 degrees cooler than the surrounding area.

Whirlpool Galaxy



A Whirlpool Galaxy image showcases the spiral galaxy's classic features, from its curving arms, where newborn stars reside, to its central core where older stars live.

Solar Sail Flares

The first-ever solar sail to orbit Earth, NASA's NanoSail-D, is making a series of passes over North America this week. Sky watchers should be alert for bright flares caused by sunlight glinting off the sail's reflective fabric. Times it and other satellites will pass overhead:

<http://www.spaceweather.com/flybys/flybys.php>

Trivia Question

By Greg Huber

The conspiracy crowd has the internet a-buzz with what comet that "will" "soon" "destroy" the Earth?

Last month's question

"The features of Venus have a special naming convention. Name what is special about this labeling system."

Answer: All the features on Venus are named for famous women, or female legends.

The Moon Smells – and Not Like Green Cheese

Neil Armstrong and Buzz Aldrin were covered with dust after collecting two boxes of rocks during their moon walk.

Back inside the Lunar Module, they took off their helmets and noticed a strange odor. Armstrong likened it to "wet ashes in a fireplace." Aldrin described it as "metallic."

Several astronauts on later moon missions said moon dust smelled like burnt gunpowder.

How does it taste?

"Not half bad," according to Apollo 16 commander John Young.

Stargazer Update

Is **Dean Regas** going to become the permanent host of Star Gazer? It's still too early to tell.



Dean filmed 5 more weeks of Star Gazer, the iconic observational astronomy program that airs nightly on channel 16 and 48 locally, and on over 90 stations around the world.

Look for him at 8:55 or 9:55pm on channel 16 and 12:55am on channel 48. The PBS station that films Star Gazer, WPBT, located in Miami, Florida has searched far and wide to fill the void left by astronomer Jack Horkheimer after his sudden passing.

Dean has been called back three times and has filmed 18 weeks of shows. If selected Dean wouldn't quit his day (and night) job at the Cincinnati Observatory but would fly down to Miami once a month to film the episodes.

If you can't catch Dean this month on TV, the shows are available online at: <http://www.jackstargazer.com/> If you don't get Star Gazer on your PBS station, be sure to call them and request it - It is a free program to air.

Good luck to Dean and keep looking up!

Star Gazing Eases Anxiety at Dayton Hospice

By Kathleen Emerson, LPN,
CHPLN

Submitted by John Ventre

Imagine lying back in your recliner on a warm summer evening looking up at a beautiful night sky filled with stars and soft puffy clouds. The galaxy with its pinpoints of brilliance is immense before you. Imagine the peacefulness and comfort this brings to you. This is what The Hospice of Dayton is providing patients with our laser star projectors.

Several months ago, we started with one projector. The response from patients and families was so positive the use of the star projector caught on quickly. Soon we had patients and family members requesting the projector for their room. We had one patient, who was experiencing extreme terminal agitation. No amount of medication, soft lights, quiet music and a peaceful room helped this patient experience peace and relaxation. We took the projector into his room, turned the lights down and the star projector on. Immediately, the patient was entranced by the scene playing out on his ceiling. He laid there quietly watching the stars and clouds, until he dozed off to sleep. This became a daily ritual for this patient, affording him the peace and rest he needed. After he slipped into a non-responsive state, his wife

would frequently request the star machine, stating it helped her to relax while she sat with her husband. After his passing, his family donated five star machines to the unit.

Shortly thereafter, another family donated two more star machines. We now have a total of eight machines, seven of which are mounted on moveable bedside tables. They are available at both the Dayton and the Butler Warren Counties Comfort Care Centers. The machines are constantly in demand. Frequently as you walk down the halls, you will see a darkened room, with the night sky moving about on the ceiling, as the patient rests quietly.

The laser star projectors are part of the ongoing expansion of complementary medical approaches provided by The Hospice of Dayton used as adjuncts to conventional medicine. Like expanded pet therapy, massage and aroma therapy programs, the laser star projectors are made possible through donor support. The laser star projectors are part of the ongoing expansion of complementary medical approaches provided by The Hospice of Dayton, used as adjuncts to conventional medicine. Use of the equipment is being expanded to address the needs of our patients in home care and extended living facilities. We look forward to watching the use of the star projectors grow as we continue to see the impact they have in relieving the symptoms of anxiety, pain and restlessness.

Solar Activity Heats Up

April 14, 2011: If you've ever stood in front of a hot stove, watching a pot of water and waiting impatiently for it to boil, you know what it feels like to be a solar physicist.



NASA's Solar Dynamics Observatory recorded this X1.5-class solar flare on March 9, 2011.

Back in 2008, the solar cycle plunged into the deepest minimum in nearly a century. Sunspots all but vanished, solar flares subsided, and the sun was eerily quiet.

"Ever since, we've been waiting for solar activity to pick up," says Richard Fisher, head of the Heliophysics Division at NASA Headquarters in Washington DC. "It's been three long years."

Quiet spells on the sun are nothing new. They come along every 11 years or so—it's a natural part of the solar cycle. This particular solar minimum, however, was lasting longer than usual, prompting some researchers to wonder if it would ever end.

News flash: The pot is starting to boil. "Finally," says Fisher, "we are beginning to see some action." http://science.nasa.gov/science-news/science-at-nasa/2011/14apr_thewatchedpot

Did You Know....

Mercury and Earth are the only planets in the inner solar system that have magnetic fields, though Earth's is much stronger.

Bring Your Scouts to the Observatory

By Craig Niemi

Looking for a unique place to visit with your scout troop? Looking for a program that fulfills your badge requirements? Looking to, well... LOOK through a giant telescope? The Observatory has you covered. Outreach Educator **Leo Sack** has expanded the Observatory's offering of Scout programs with 1 and 2 hours' programs designed to fulfill Scout's insatiable curiosity. Check the website's Education Programs/ Scout programs for more information.

Japanese Earth Observing Satellite Feared Lost

Japan's Advanced Land Observing Satellite, one of the world's foremost remote sensing platforms, inexplicably lost power Friday, likely ending its mission mapping Earth and monitoring natural disasters, according to the Japan Aerospace Exploration Agency.

<http://spaceflightnow.com/news/n1104/22alos/>

Free Stargaze!

Idlewild Park, City Park Dr.,
in Florence.

Saturday, May 7th
Begins at 7:45pm

By Craig Niemi

The focus will be on Saturn, which is very bright in the sky at this time. Bring your kids and look up!! Don't forget to bring blankets to sit on and to keep you warm. You're welcome to bring a picnic. Presented by the Cincinnati Observatory & Boone County Parks. (Rain date: 5/21)

www.boonecountyky.org

My Experiences At NASA

Tuesday, May 10th, 7-9pm



By Craig Niemi

David Rutishauser is a Cincinnati native, a graduate of Purcell Marian High School, and former student of COC Board president Dr. Michael Flick.

David has had many roles at NASA and is currently a Flight Software Engineer for the Space Shuttle Program at NASA Johnson Space Center and will share his experiences on working at NASA. David is a great example of how an early introduction into the STEM (Science, Technology, Engineering and Mathematics) disciplines can lead to a career in the sciences.

Reservations required - seating is limited.

Free for Observatory members. \$6/ person for the general public.

For more information or to make reservations please call 513-321-5186.

Large Galaxies Stopped Growing Seven Billion Years Ago

Galaxies are thought to develop by the gravitational attraction between and merger of smaller 'sub-galaxies', a process that standard cosmological ideas suggest should be ongoing. But new data directly challenges this idea, suggesting that the growth of some of the most massive objects stopped 7 billion years ago when the Universe was half its present age. <http://www.sciencedaily.com/releases/2011/04/110418084005.htm>