

Friends of The Observatory

Newsletter

August 2002
Phone 513-321-5186

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A Letter From President Huber

Dear "Friends",
It's the Dog Days of summer and you usually won't find me wishing for cloudy skies....But we could really use the rain. Maybe we can arrange to have it rain during the daytime and have it clear in the evenings.

Thank you to all who attended the events that we had last month in and around the Observatory. Even though the weather at the Ault Park dance was mostly cloudy, a number of people were able to see the moon and lots of people got good information about the Observatory.

Next month the Observatory also has a number of ways that you can help volunteer if you missed out last month so read up on the newsletter and pick out something fun and we'll see you there!

Thanks to all who attended the annual FOTO Family Picnic last month.



The picnic was a big success with about 45 people attending. I hope that everyone had a great time enjoying the beautiful weather, stomp rockets, telescope views and good picnic food.

FOTOKids Meeting

FOTOKids will NOT be meeting on its normal night (August 2nd) this month. Instead, our annual campout will be Friday, August 9th at Chilo Lock #34 Park.

Come for a night of water pressure rockets, telescopes, hot dogs and sleeping in a yurt.

Anyone interested in attending please contact **Sheila Riley** at 513-724-3801.

Stonelick Lake Star Parties

The next Stonelick Star Party and Cloud Dates will be **Saturday, August 3rd**, with a rain date the following Saturday, August 10th. They will be setting up around dusk in the beach overflow parking lot.

They're held at Stonelick Lake State Park, which is open to the public all night year 'round.

For updates, directions or information phone **Scott Naylor** at 513-575-5556.

Did You Know....

Recent observations have suggested that the expansion of the universe is speeding up over cosmic time, under the influence of a "dark energy".....even more mysterious than dark matter.

August Meeting

We'll be meeting at the church on Thursday, August 1st at 7:30 PM. Call 513-321-5186 for directions.

Greg Huber will be our speaker. His program will be to show "Some Not so Famous Hubble Pictures".

Come join your friends for some supper before the meeting. We'll meet at 6 PM at the Cooker Restaurant in the Hyde Park Shopping Plaza.

Good news! Beginning in January, FOTO meetings will be permanently moved from the church to the West Wing of the newly refurbished Observatory.

Did You Know....

Even now 40 to 100 tons of small interplanetary debris and dust fall into Earth's atmosphere daily.

The Planning Meeting

The planning committee will meet at 6 PM on **Wednesday, August 21st** at Max & Erma's Restaurant in the Rookwood Pavillion.

FOTO Elections in October

Start thinking about nominees for the FOTO officer nominations to be held at the September meeting, with elections to be held in October.

Light Observed Fighting To Escape Black Hole's Pull

Scientists have found new evidence that light emanating from near a black hole loses energy climbing out of a gravitational well created by the black hole, a key prediction of Einstein's theory of general relativity.

<http://spaceflightnow.com/news/n0206/27blackhole>

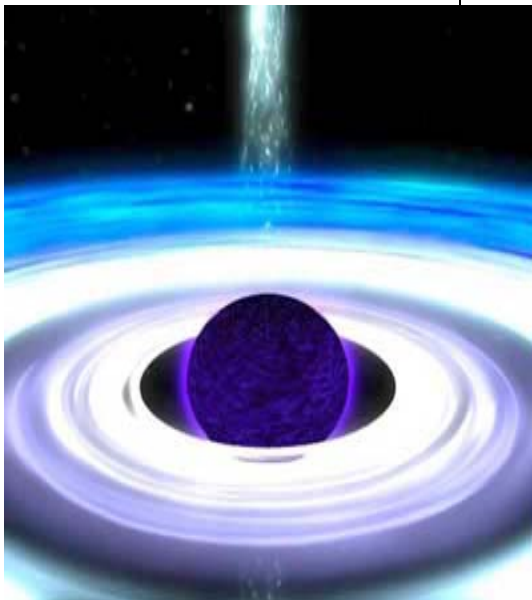


Illustration of a spinning black hole. The close-up view represents the immediate vicinity of the black hole, with the event horizon depicted as a black sphere. The surrounding disk of gas, represented by white and blue rings, whirls around the black hole at different speeds, with the material closest to the black hole approaching the speed of light. Because it moves at different speeds, atoms that comprise the gas rub against each other and become intensely hot, causing them to emit high-energy radiation, like X-rays. These X-rays reveal an otherwise invisible black hole.

ScopeOut'02

By Craig Niemi

ScopeOut 2002 has been set for Saturday, October 12th. ScopeOut '02 will follow much the same format as last year. There'll be more info as the big event draws nearer. So cross Columbus Day off your calendar, and write in ScopeOut!

DOG-dayz /dog days (noun plural)

By Greg Huber

*1: The hot sultry period of summer between early July and early September in the northern hemisphere

2 : A period of stagnation or inactivity.

Example sentence:

With the steamy dog days approaching, air-conditioning units are selling like hotcakes.

Did You Know....

Dogs aren't the only creatures uncomfortable in oppressive heat, so why does a dog get singled out in "dog days"?

The dog here is actually the Dog Star, which is also called "Sirius."

The star has long been associated with sultry weather in the northern hemisphere because its heliacal (i.e., early morning) rising coincides with the hottest days of summer.

In the ancient Greek constellation system, this star (called "Seirios" in Greek) was considered the hound of the hunter Orion and was given the epithet "Kyon," meaning "dog."

The Greek writer Plutarch referred to the hot days of summer as "hemera kynades," literally "dog days," and a Latin translation of this expression as "dies caniculares" is the source of our English phrase.

Did You Know....

Improbable as it may sound, Mercury might have water-ice trapped inside the craters near its pole. Scientists speculate that waster delivered by comet or asteroid impacts, might be a permanent fixture on Mercury.

Help Needed

FOTO and the COC are looking for people interested in setting up scopes and/or handing out literature at the third of three dances at Ault Park.

The last dance is August 15th, from 6:00 till around midnight. We're planning on setting up on the pavilion level, not on the top of the building. The Moon will be around first quarter each date so we'll have something to look at until dark.

If you'd like to help, contact **Chuck Strubbe** at jstrubbe@one.net, let him know what day you'd like to show up, if you're bringing a scope, how to contact you, etc.

Maury Childs

By Greg Huber

Our very dear friend Maury, lost his battle with cancer on Wednesday, July 17th. He passed away in peaceful sleep in the presence of his wife, children and eight close friends.

His passing will certainly result in a void that will match any black hole.

Colorful Fireworks Finale Caps Star's Life



The newest image release from the Hubble Space Telescope is of the shredded remnants of Cassiopeia A, a star that went supernova more than 10,000 years ago - the youngest known supernova in our galaxy. Debris has formed into thousands of cooling knots of gas and dust, and will eventually supply new star systems with heavier elements such as oxygen and sulphur. <http://opposite.stsci.edu/pubinfo/PR/2002/15/index.html>

Ault Park Dances with FOTO

By Chuck Strubbe

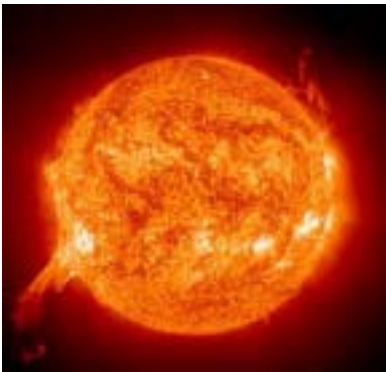
The Dance at Ault Park on July 18th was a success for the COC and FOTO in many ways. Even though it was pretty much clouded out, Wally Knesel and I did manage to set 2 -- 6" Dobs up and showed about 50+ people the moon. Too bad Wally couldn't set up his 25" diameter Obsession telescope. Additionally, several FOTO members showed up to dig the music and passed out COC information as well as NASA posters. It's not easy dancing with a NASA poster in your hands.

This month's dance is on August 15th.

Did You Know....

In far less than the blink of an eye, a speck much smaller than a proton would have swollen to the size of a grapefruit, and then resumed its more stately expansion with all of normal cosmic history before it, resulting in today's observable universe – a patch of sky and stars 14 billion light years across. All from about an ounce of primordial stuff!

Solar Satellite Sees Molten Curl Blowing From Sun



A beautiful loop of magnetic energy large enough to encompass 40 Earths, was spotted by NASA's Solar and Heliospheric Observatory (SOHO). Blasting off the Sun, the loop traps hot gas and typically reaches 107,000 degrees F.

<http://spaceflightnow.com/news/n0207/08suncurl/>

Ohio Bicentennial Historical Marker Dedication

By John E. Ventre

FOTO members are encouraged to attend the dedication of the Ohio Bicentennial Historical Marker at the Observatory. The celebration will be held on the Observatory grounds on Saturday, September 7, 3:00 to 6:00 PM with the actual dedication ceremony from 4:00 to 4:45 PM.

The President of the Ohio Senate, Richard Finan, will deliver the principal speech. A proclamation from Governor Taft will be read.

To add to the festivities, a 30-piece military band will play patriotic music, and period-costumed docents will join the activities. FOTO volunteers will offer solar viewing and historic tours of the Observatory.

The historical marker, which will be dedicated, highlights the history of the Cincinnati Observatory. The Ohio Historical Markers program, which is administered by the Ohio Historical Society, commemorates and celebrates local history. The historic markers are large cast-aluminum signs that tell stories about aspects of Ohio history.

The marker was jointly funded by a grant from the Longaberger Legacy Initiative of the Ohio Bicentennial Commission and the Cincinnati Observatory. The Legacy Initiative is designed to encourage placement of Ohio Historical Markers throughout the state in celebration of Ohio's Bicentennial in 2003.

Please bring your families and friends to this celebration. It will be an opportunity to see the recently restored Observatory building.

Word of the Month

Virial Theorem

Answer to July's Word of the Month:

Ulugh Beg was an astronomer who lived in Mongolia in the early 1400's. He is most famous for building a huge stone sextant for measuring the positions of the stars. How Big of a sextant??? About 200 feet in diameter!! That's Big!

August's Trivia Question

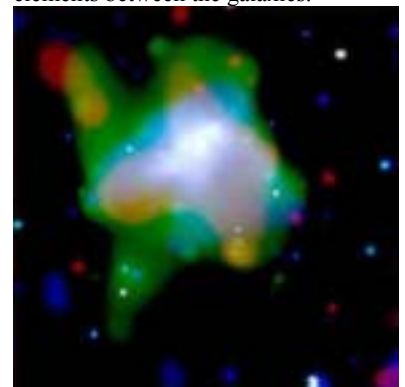
Who discovered the planet Uranus in 1781?

Here's the answer to last month's Trivia Question. "Can you name all three of Kepler's Laws?"

- 1) Law of ellipses
- 2) Law of equal areas
- 3) Harmonic Law

Dwarf Galaxies Give Universe A Breath Of Fresh Oxygen

Astronomers have discovered that a nearby dwarf galaxy is spewing oxygen and other "heavy" elements into intergalactic space. This observation supports the idea that dwarf galaxies may be responsible for most of the heavy elements between the galaxies.



The Chandra image of NGC 1569, a dwarf galaxy 7 million light years from Earth, shows large hot bubbles extending above and below a disk of gas along the equator of the galaxy. The observation allowed scientists to measure the concentration of oxygen, neon, magnesium, and silicon in the bubbles and the disk. They found that bubbles contain oxygen equal to the oxygen contained in 3 million suns.

<http://spaceflightnow.com/news/n0207/24chandra/>

Did You Know....

Where Earth clouds are made of water vapor, the intense heat of brown dwarfs gives rise to metallic gases which can then form clouds of, say, liquid iron.

Hubble Searches for More Plutos



The Hubble Space Telescope's latest task is to track down elusive Pluto-like objects that lurk at the very edge of our Solar System - many of which seem to travel in pairs like Pluto and its moon Charon. These objects are classified as Kuiper Belt Objects (KBO) and can be found in a vast belt past Neptune. So far, 1% of KBOs have been found to be binary systems, a fact which puzzles astronomers.

Did You Know....

The surface of the Moon rises and falls by as much as 4 inches every 27 days because of the Earth's gravitational pull.

Friends of the Observatory
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Cincinnati, OH 45208

Watch the Perseids

A Perseid Meteor Shower Watch will be held at Harsha Lake (East Fork) on Saturday, August 10th at 9 PM. If you would be interested in helping with this event please contact **Sheila Riley** at 513-724-3801.

FOTO-SETI Update

26 dedicated FOTO members have now completed 14,582 SETI studies, an increase of 570 studies since July, for a total of 38.5 years of computer time!

It's time to sign up to become part of the greatest search in history!
<http://www.space.com/searchforlife>

Help at Kids Expo

FOTO once again is hosting a booth at the All About Kids Expo at the Cincinnati Convention Center on August 17th and 18th. If you'd like to volunteer, please call **Greg Huber** at 513-894-7735 or come to the FOTO Meeting and sign up for an action packed couple of hours.

Did You Know....

Close encounters between Jupiter and Venus happen often enough, every year or so. Some, though, are better than others. For instance, on June 17, 2 B.C., the pair drew so near -- just 6 arcseconds (0.002 deg.) apart -- that they merged into a single dazzling point of light. Some scholars believe that was the Star of Bethlehem mentioned in the Bible.

Astronomy Classes This Fall

There will be an astronomy class for new members starting in September. That's what we know. What's possible is that the old Paul Nohr class may resume with or without Paul, and there could be a more advanced astronomy class.

We'll have more on these classes in the September Newsletter.

Did You Know....

Europa has a thin oxygen atmosphere.

