

Friends Of The Observatory Newsletter

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Phone 321-5186

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Website: <http://w3.one.net/~foto> Bill Cartwright, editor

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A Letter From President Huber

Dear "Friends",

I hope that your summer is going well. I also hope that you have had a chance to use your sundials. Sundials are nice, but until they are practical they can be perfect. (Be sure to thank Ron Diesslin at the next meeting. He donated all of the paper materials for the projects.) And for all of you who got to go out to Stonelick last month...I'm jealous as I heard the stories of all the splendors of the universe you got to see.

We have some grand events coming up here in the future. We are trying to plan a trip to Adler Planetarium in Chicago, FOTO is co-sponsoring "Scope Out '99" (the telescope fair that some of you have heard about), and Paul is still teaching the FOTO astronomy class on a periodic basis.

I hope that we can get everyone's input and help with all of the upcoming projects.

I'll see you at the picnic....Don't miss viewing the sun.

Renew your Membership

Yes, friends, it's that time of the year again. Please renew your membership again if you haven't already done so. Please check the front of your mailing label to see when your membership expires. It is important to the club that you renew so that you can continue to get your newsletter uninterrupted. Thanks!

Did You Know....

As recently as just half a century ago, there was no clear understanding as to why the sun shines. The discovery that it is due to nuclear fusion reactions was not made until the 1930s by Hans Bethe and Carl von Weizsacker.



THE FOTO SUMMER PICNIC!



This years Summer Family and Friends Picnic will be held on Thursday, July 1st. If you were unable to attend the June meeting, but would like to bring some goodies, please call, **Greg Huber**, at 894-7735.

The picnic has been traditionally BYOM ("M" means meat) a time when people get together and share. We'll have a grill there to heat up or cook what you bring.

The picnic will start at the "O" at 6 PM! There will also be solar observing in both H alpha and white light. So come on out bring the family and have a great time!!!

Did You Know....

Enough water molecules are being produced in a cloud of interstellar gas near the Orion nebula to fill 60 Earth oceans.....every day!

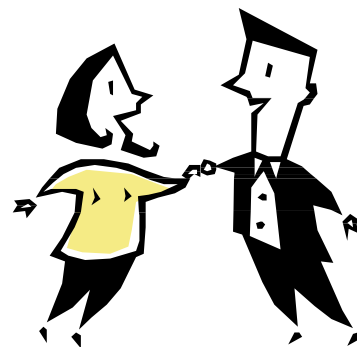
FOTOkids....

You are invited to our Summer Picnic at the Observatory, Thursday, July 1st at 6:00 PM. The picnic is BYOM (bring your own meat). The rest of the picnic is potluck. Don't forget to bring along your parents so they can meet the rest of the group. Hope to see you there.

The Planning Meeting

FOTO's June Planning Meeting will be held on Wednesday July 21stth at 6 PM at the Cooker Restaurant in the Hyde Park Plaza near Krogers.

Welcome New Members!



Debra Marksberry.

FOTO would also like to officially welcome the following to FOTOkids.

If your name doesn't appear here, please contact Chuck Strubbe at 886-7600.

Welcome!

Alexa Amendolagine, Matthew and Ryan Clark, Brittany Figgins, Brandie Grasser, Tiffany Groen, Allen Helfen, Ryan Iulg, Tyler Magnarini, Jacob Lyon, Jamie Marksberry, Lawrence Moorehead, Joey Powers, Ben Quinn, Justin Roberts and Heidi Scherz.

Looking Up Into July's Sky



- 1 The moon passes 0.4° north of Uranus.
- 6 Last quarter moon; Earth is at aphelion (94.5 million miles from the sun).
- 7 The moon passes 4° south of Jupiter.
- 8 The moon passes 3° south of Saturn.
- 10 The moon passes 1° north of Aldebaran.
- 11 The moon is at perigee (224,798 miles from Earth).
- 12 New moon.
- 13 Venus passes 1.5° south of Regulus.
- 14 The moon passes 3° north of Mercury; Venus is at greatest brilliancy (magnitude -4.5). (Full Venus and empty arms)
- 15 The moon passes 1° north of Regulus; The moon passes 3° north of Venus.
- 17 Jupiter collides with Mars.
- 20 First quarter moon; The moon passes 7° north of Mars.
- 23 The moon is at apogee (251,609 miles from Earth).
- 24 Asteroid Ceres is in conjunction with the sun.
- 26 Neptune is at opposition; Mercury is in inferior conjunction.
- 28 The moon passes 1° north of Neptune; Full moon, partial lunar eclipse.
- 29 Southern Delta Aquarid meteor shower peaks; The moon passes 1° north of Uranus.

Astronomy Word for July.....

“Praesepe”. Come to the picnic and find out what it means.

June's word of the month was “Libration”, which is the special motions of the moon that allow you to see more than only the light side of the moon. Actually 59% of the moon is visible instead of only 50%.

Photos Needed

By Chuck Strubbe

I've updated the picture gallery on the Observatory web page. Basically, I had a few complaints that there were too many images on each page. So, I broke them down to smaller pages.

I've also included some pictures that I took this past winter and last week. I do have plans to expand this section once we do the overhaul of the design (we're still waiting on the logo).

If you do have other images that would fit onto this section, please hold onto them until we start the overhaul. In particular we need some inside shots of the various rooms of the Observatory and pictures of some of our historic items.

Chuck Strubbe, 886-7600

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NRO Blames Human Error

The head of a secret U.S. military space organization told Congress Tuesday human error was at the heart of the recent rash of U.S. space launch failures.

FOTOKids

FOTOKids met on June 4th at the Wolff Planetarium in Burnet Woods. For those of you who aren't aware of the Wolff Planetarium, it is at 1950 Spitz A-1, set up for about 20 people at a time to view the show. Needless to say, the Spitz provides a rather low tech but enjoyable approach studying the stars.

Dean Regas, the naturalist presenter, gave a wonderful demonstration, providing the FOTOKids and their parents with a good foundation of the constellations. Dean also adds his own humor into the show along with music provided by a boom box. The entire presentation was well received by everyone.

FOTOKids meets on Friday July 2nd at 8:30 PM at the Observatory. Bring your telescope, if you have one, and we'll have an informal telescope clinic.

Remember, FOTOKids and their families are invited to the annual picnic on July 1st!

Hope to see you there!

Joyce Tepper passed away last month. Joyce was one of the original members of FOTO and had many well thought out suggestions for improving the club. We deeply regret her untimely passing and offer our sincere condolences to her friends and family.

Scott Naylor to Create Sculpture

by Chuck Strubbe



FOTO's own Scott Naylor won a commission to create several life-sized bronze statues for the Clermont County bicentennial. Among other installations, one of Scott's charges was to conceptualize the idea of "The Future."

Scott's answer was to propose a sculpture depicting a father and a daughter using a telescope to look out into space.

"I told [the commission panel] it's like somebody said 'the sky's no longer the limit' and they thought it was like the "go west young man" thing, they decided they want it" explained Scott. "I also wanted a daughter listening to her father to help fight the stereotype of women in the sciences."

Scott plans to make a few changes to his idea before final modeling, one of which is to render the telescope after a Tele Vue 101. "I need a real model to base the sculpture on, so I have to do some research on obtaining one."

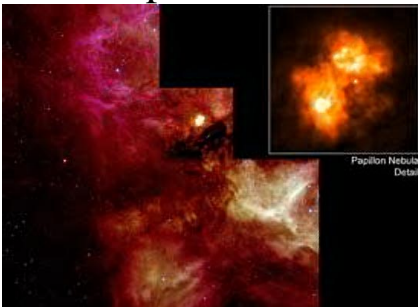
The project will take about 18 months before the sculptures are placed permanently in front of the Clermont County Courthouse.

Dark Skies at Stonelick Lake - July 10th



This is the next night we'll try to meet out at Stonelick Lake for a star party. Bring your telescope, bring your binoculars or just bring yourself. We've had some great luck the last few outings. The alternate night is July 17th. August's dates are August 7th and 14th respectively. For more information or to be included on the AstroNet (our unofficial dark sky observing title) contact **Scott Naylor** at 575-5556 or sns@choice.net.

Birth of a Massive Star Captured in a Butterfly Shaped Nebula



Newborn stars are difficult to observe because they are always hidden within dense clouds of dust. And if the star is really a massive one, say 10 times heavier than our sun, spotting the starbirth is almost impossible because such massive stars evolve so quickly.

The newly found massive newborn stars are in one of our satellite galaxies, the Large Magellanic Cloud (LMC), 170,000 light-years away. Fierce stellar winds from the hot newborn massive stars sculpt ridges, arcs and filaments in the vast cloud, which is over 150 light-years across.

Did You Know....

Asteroid XL1 missed Earth by a mere 52 minutes in 1994! It was spotted just 14 hours away from its closest approach which was just about one quarter the distance to the Moon!

Ganymede Cloaked in Impact-Generated Dust Clouds



Grains are kicked up from the moon's surface by impacts of interplanetary meteoroids. In these impacts the meteoroids hit the surface so fast that they evaporate and explode, causing puffs of debris to be ejected at such high speed that they can leave the satellite's gravitational field.

The "O" on Channel 9

Joe Webb of Channel 9 aired a three minute segment about the "O" including some footage of the camp, an interview with **John Ventre** last week. **Andy Bruggemann** taped the segment.

Did You Know....

The matter near the center of the Sun is so densely packed that energy carrying photons produced during nuclear reactions have trouble finding their way through. Their path is so slow that it can take over a million years for a photon to find its way out.

Jodrell Bank Plans 200 Klick SETI Search

Project Phoenix, a collaborative project between the SETI Institute, the Arecibo radio telescope in Puerto Rico, and the Jodrell Bank radio telescope in Manchester, England, is seeing the two telescopes undertake the most sensitive search ever of Sun-like stars



within 200 light years.

Giant Radio Telescope Array Planned for Chile



Astronomers will study the origins of galaxies, stars, and planets with an integrated array of up to (64) 12-meter diameter antennas distributed over an area 6.2 miles across. The antennas will have the light-collecting area larger than a football field and will provide images of unprecedented sensitivity and sharpness. Some astronomers call it a zoom lens on the cosmos.

New Astronomy Classes

New astronomy classes have started and will continue through the summer. The first classes featured popular Paul Nohr and focused on the sun. All will be held in the Mitchel Building at the "O" on Tuesday evenings at 7:00 PM on July 13, 27 and August 10 & 24. Classes are free for FOTO members.

More Chemical Clues to Hale-Bopp's Birth



Infrared observations of Comet Hale-Bopp allowed astronomers to gauge its production of carbon monoxide, and thus bolster an Oort Cloud origin.

Our solar system's comets are thought to come either from the Kuiper Belt, at distances only modestly beyond that of Neptune, or from the Oort Cloud, which may extend a light-year or more from the Sun. Ironically, the comets in the latter, far vaster reservoir first formed within the realm of the giant planets — closer than the birthplace of the Kuiper Belt denizens — before being tossed out by the giant planets' gravitational perturbations..

Hubble Image Captures Stellar Life Cycle Phases



Like a collage of photographs showing a human being from infancy to old age, a striking new picture unveiled today shows various stages in the life cycle of stars, all occurring at one time. The photograph clearly shows structures that will develop into stars, a starburst cluster featuring young massive stars, and a blue supergiant in its last stage before the death throes of becoming a supernova.

Did You Know....

Earth plays a stabilizing role in the inner solar system. If Earth weren't here both Venus' and Mercury's orbits would gyrate wildly....with the likely outcome being Mercury's ejection from our solar system, or the collision of the two planets!

Sun's Activity Predicted to Peak in Y2K

The Sun is known to exhibit a maximum of activity, including solar flares and an increased number of sunspots and coronal mass ejections, approximately every 11 years. The next solar maximum will occur between January and April 2000.

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Address Correction Requested

SETI/Berkeley Plan 1,000 Dish Array

Using mass produced satellite dishes, Berkeley, and the SETI Institute will build a 1,000 dish array!

Did You Know....

An asteroid ranging in size from 600 feet to one mile in diameter, striking the Earth, could blast a crater up to 10 miles wide, with devastation on a national scale. Worldwide environmental effects would result in large scale famine, collapse of the world's financial markets, and a serious economic depression. Chances of being hit are one every 10,000 to one million years.

Scientists Discover New 'Methane Dwarfs'



Scientists have revealed a new type of astronomical object, smaller than a star but larger than a planet.

The name "methane dwarf" has emerged, because of the dramatic presence of methane. Methane is characteristic of giant planets, like Jupiter, but it never appears in normal stars-they are much too hot-or even in most brown dwarfs."

Does ET Shine Bright

That's the hope of Harvard researchers involved in the search for extraterrestrial intelligence (SETI) who have unveiled a new experiment that involves scanning the heavens for flashes of laser light.

Do Galactic Explosions Inhibit Life?

SETI scientists are looking at the possibility the galaxy is periodically sterilized of life by massive bursts of gamma rays.

In Search of Ozone Signatures

A planned telescope called the Terrestrial Planet Finder and its successors will search planetary atmospheres for tell-tale signatures of life



-- and biologists and astronomers should collaborate in the hunt.

Did You Know....

Comets were formed before the planets. Those comets continually collided with each other and that debris formed the cores of the giant planets.

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