

The FBAC Observer

Volume 18, Issue 11

November, 2004

Astronomy Day 2004



Photo Courtesy Randy Brewer

Was It Really This Bad?

Discover The Truth On Page 2

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Astronomy Day 2004

Success Or Failure?

The traffic detail volunteers huddled under umbrellas, staring down the gravel road behind the observatory. We had been there since 12 o'clock and traffic to unload telescopes had been light all afternoon. It didn't look like there was going to be much more on this day.

October is usually the best month of the year in Texas but a high pressure system had camped over this part of the world holding off the typical cool fronts for weeks. The result was clouds, rain, and crummy weather that threatened to destroy our Astronomy Day festivities.

The rain slacked a little. I furlled my umbrella and walked back up the path to the deck above the visitor center. By this time, a dozen or more telescopes should be set up but I saw only three. The sky was socked in and it looked like people who volunteered to bring deck scopes were staying away in droves. What should

have been a good time for all was turning out to be a big bust.

Or was it? Texas weather is nothing if not fickle. There's an old saying that only a fool or a newcomer predicts the weather in this state. Stick around a while and it'll change. Well, it seems like it didn't have to change much to get the public interested.

By 3:00 p.m. people were starting to trickle into the observatory visitor center. By 5:00 o'clock it was a flood. The public parking lot overflowed and we were parking them on the grass. Long, yellow school buses trundled in and disgorged squirming, squealing kids by the dozen. Parents and teachers struggled to keep up and to keep mayhem to a minimum. A combination of the internet, television, and word of mouth promotion was working. Even bad weather couldn't keep the public away from the George Observatory.

People came to see outstanding lectures on everything from how to use a telescope to deep space. Kids could get their face painted or they could make strange and unusual devices. NASA was there with moon rock samples and every astronomy club in the Houston area was represented. By dark, the place was crawling with people.

The weather finally cooperated to a degree. The few deck scope observers on site were able to show off the Moon and a few stars. M31 sometimes made an appearance between clouds. According to Barbara Wilson, director of the George Observatory, it was one of the best Astronomy Days she has seen. Organization and execution was, for the most part, perfect. She sends her thanks and congratulations to everyone who participated with kudos to Cynthia Gustava for handling things so smoothly.

Success or failure? Many people who may never have come to the park were able to see the George. Lots of kids got their first look through a telescope...and maybe even grownups, too. The weather was bad but everyone agrees it was a good day for astronomy.

—Wes Whiddon

**After Years**

Today, from a distance, I saw you walking away, and without a sound the glittering face of a glacier slid into the sea. An ancient oak fell in the Cumberland, holding only a handful of leaves, and an old woman scattering corn to her chickens looked up for an instant. At the other side of the galaxy, a star thirty-five times the size of our own sun exploded and vanished, leaving a small green spot on the astronomer's retina as he stood on the great open dome of my heart with no one to tell.

A poem by the poet laureate of the United States—Ted Kooser

Part-time Instructor of Astronomy (Spring 2005)

Montgomery College

The Woodlands, TX

MS in Physics/Astronomy or MS with 18 graduate hours in Physics/Astronomy/Astrophysics required. Teaching experience a plus. Contact: maria.anderson@nhmccd.edu.

Want to be trained on the 36" Research scope? Paul Garossino has completely revamped the training manual and is offering classes on November 14 and 21. If you are interested, call Barbara Wilson at (281) 242-3055.

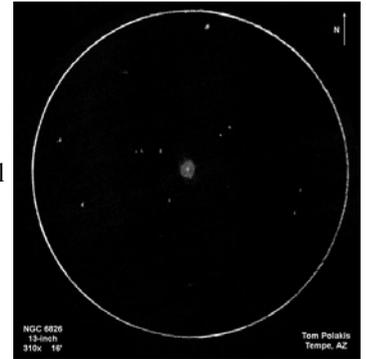
November 2004 Astro Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<i>1 Venus and Jupiter stand in the eastern sky before dawn, pulling within 3 degrees of each other tomorrow morning</i>	<i>2 Mars and Spica 16 degrees below Venus. Your our sundial and clock are out of sync by 16 minutes today.</i>	<i>3 Venus and Jupiter reach maximum separation.</i>	<i>4 Last quarter moon at 11:53 p.m. CST. Regulus shines 14 degrees to the Moon's lower left.</i>	<i>5 Old Sol is moving south, reaching it's farthest point in a month and a half.</i>	<i>6 Check out the Milky Way...if you can find it in the light pollution.</i>
<i>7 Saturn breaks the horizon 5 hours after sunset and begins retrograde motion tomorrow.</i>	<i>8 An apparition of the crescent moon, Jupiter, and Venus will grace the sky tomorrow morning.</i>	<i>9 You already know what's happening today.</i>	<i>10 Catch the waning moon crescent moon.</i>	<i>11 Capella low in the northeast as darkness falls.</i>	<i>12 New Moon at 8:27 a.m. CST.</i>	<i>13 Find the young Moon thirty minutes before sunset. It's not easy. Good luck.</i>
<i>14 Tonight's crescent Moon is easier to spot. Look 5 degrees above the SW horizon 45 minutes before sunset.</i>	<i>15 Find Uranus and Neptune near the meridian. You should be able to find both with binoculars.</i>	<i>16 Leonid meteor shower tomorrow morning. Don't expect much for the next 20 years.</i>	<i>17 Spooky star Formalhaut low in the south this evening.¹</i>	<i>18 Find Formalhaut by following the west side of the square of Pegasus to the horizon.</i>	19 FBAC Club Meeting, 7:30 p.m., First Colony Conference Center, 3232 Austin Parkway, Sugarland, TX	<i>20 First quarter moon was yesterday. You missed it! Mercury at greatest elongation today.</i>
<i>21 Orion, the hunter, can now be seen in the evening sky.</i>	<i>22 Sol in Scorpius today. But don't tell the astrologers.</i>	<i>23 Not much happening today.</i>	<i>24 Don't mistake Aldebaran for Capella tonight. Orion will follow closely behind both.</i>	25 	<i>26 Full Moon at 2:09 p.m. CST. Tonight's apparition is sometimes call the Frosty Moon.</i>	<i>27 Look for Saturn 4 hours after sunset. See if you can spot the Cassini spacecraft.</i>
<i>28 Venus edges closer to Mars, coming within 4 degrees tomorrow morning.</i>	<i>29 Find the Big Dipper...or not. It's almost below the horizon.</i>	<i>30 Waning Moon, Saturn, Castor & Pollux. A beautiful sky tonight 3 hours after sunset.</i>	<i>¹Formalhaut is hotter than our Sun and 16 times as luminous.</i>			<i>Calendar information courtesy University of Michigan's Abrams Planetarium.</i>

Deep Sky Challenges in November

This month we will look at two different constellations along the Milky Way, Cygnus and Cassiopeia. High overhead embedded among a rich star field is the constellation Cygnus, also known as the Northern Cross, followed by Cassiopeia toward the east. Cassiopeia resembles the letter “W” in the night sky.

The first object to hunt is known as the “Blinking Planetary” or NGC 6826. Lying just 4° northwest of the bright star *Delta “δ” Cygni*, this star is the tip of one of the wing stars in Cygnus. The planetary gets its name from the bright yellow central star (10.4 mag) associated with this nebula. If you stare at the central star of the planetary it will fade out, but if you just look at the outside planetary itself you can see the whole object. Also, using averted vision will produce the same effect. The “blinking” effect is more prominent in smaller scopes, but one can achieve the same effect in larger scopes by using lower power. It is blue-green in color with a circular shape and easily picked out from the background. Tom Polakis from Arizona drew the picture to the right which has north up and is viewed in a 13 inch telescope.



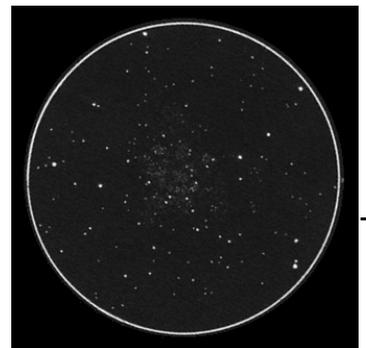
The next object in Cygnus is a proto-planetary known as “The Box Nebula”, NGC 7027. I know what you’re thinking. This object will be too small to see in any scope. Wrong! Located 3° away from the star *Deneb* and 1° away from the *North American Nebula*, you might as well take a look at it while you’re in the field and in route from *Deneb*. Use lower power and a UHC filter to view the North American Nebula, without the filter it is almost impossible to see.

Astronomers used to think that NGC 7027 was an emission nebula until the Hubble Space Telescope took an image of it (on the left) and discovered that it was in the beginning stages of a planetary nebula. Burnham’s *Celestial Handbook* reports this planetary as having one of the richest spectrums. The planetary nebula is blue in color and rectangular in shape. It can be viewed with small telescopes (8 inch) at low power (80 magnification), but most astronomers report it being green or blue-green in color with smaller scopes. With larger scopes and higher power it appears quite elongated with a false central star on the west edge of the nebula.



So finding planetary nebulae that are not Messier objects is not that hard and not all of them are difficult to view. These two happen to be a fine example of deep sky planetary objects that are interesting to observe and unique in appearance.

Cassiopeia is a circumpolar constellation with nearly 600 square degrees of sky and will become higher in the night sky as autumn progresses. This is where we find our next objects. We will start with NGC 7789, a beautiful open cluster off the end of Beta “β” Cassiopeia. It is located between the stars Rho and Sigma Cass., originally discovered by Caroline Herschel in the 18th century. The whole group covers nearly a half degree and the stars range in magnitude from 11 to 18. This open cluster is a cross between a true galactic cluster and the less condensed globular clusters. It is older than most galactic clusters (1.5 billion years old), but not as ancient as globular clusters. A large beautiful rich star cluster circular in shape, with lines of stars streaming out from the center, the object can be seen with small and large scopes.



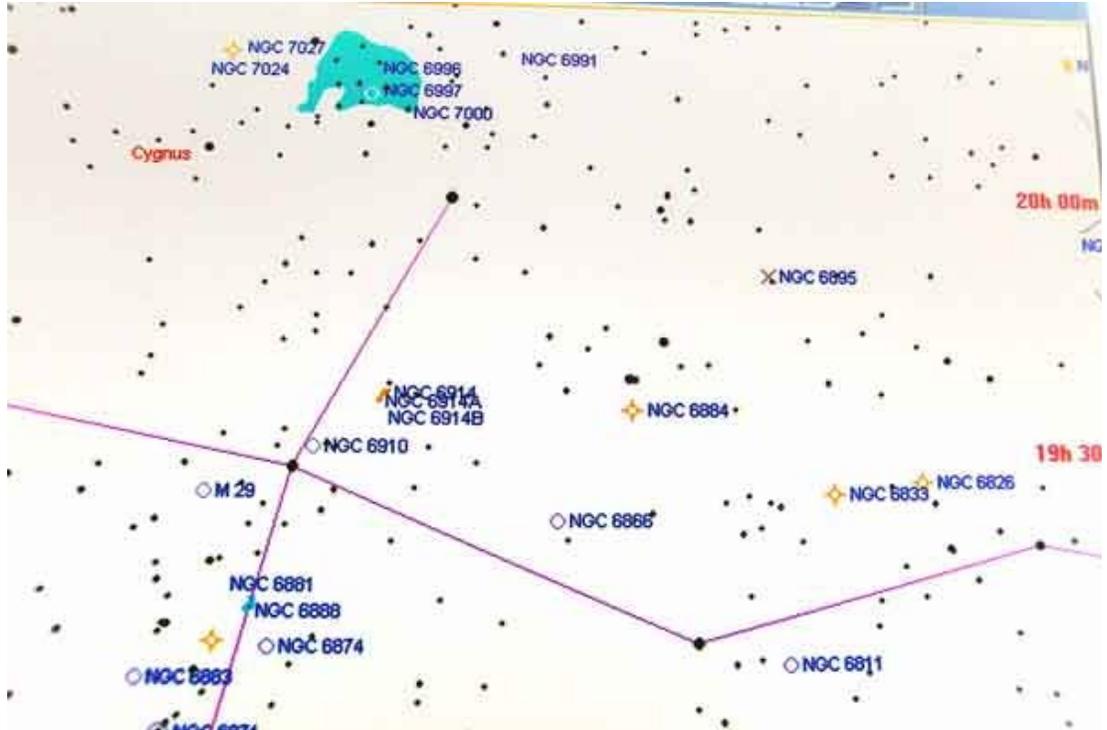
Our last object is more of a challenge. It is the “Pac-Man Nebula” located close to Alpha “α” Cassiopeia. The open star cluster IC 1590, which formed in the last few million years, can be seen embedded within the nebula providing the energy to help ionize NGC 281. Astronomers believe that the dark lanes of dust within the nebula are likely areas of future star formation. The emission nebula is at a distance of 10,000 light years away. Viewed with scopes from twenty to four inches, one must use a UHC filter in order to catch a glimpse of this object. It is some 28’ across and crescent in shape with a dozen stars in a central concentration. The image was taken by Randy Brewer on October 17th in Ft. Davis in Texas.



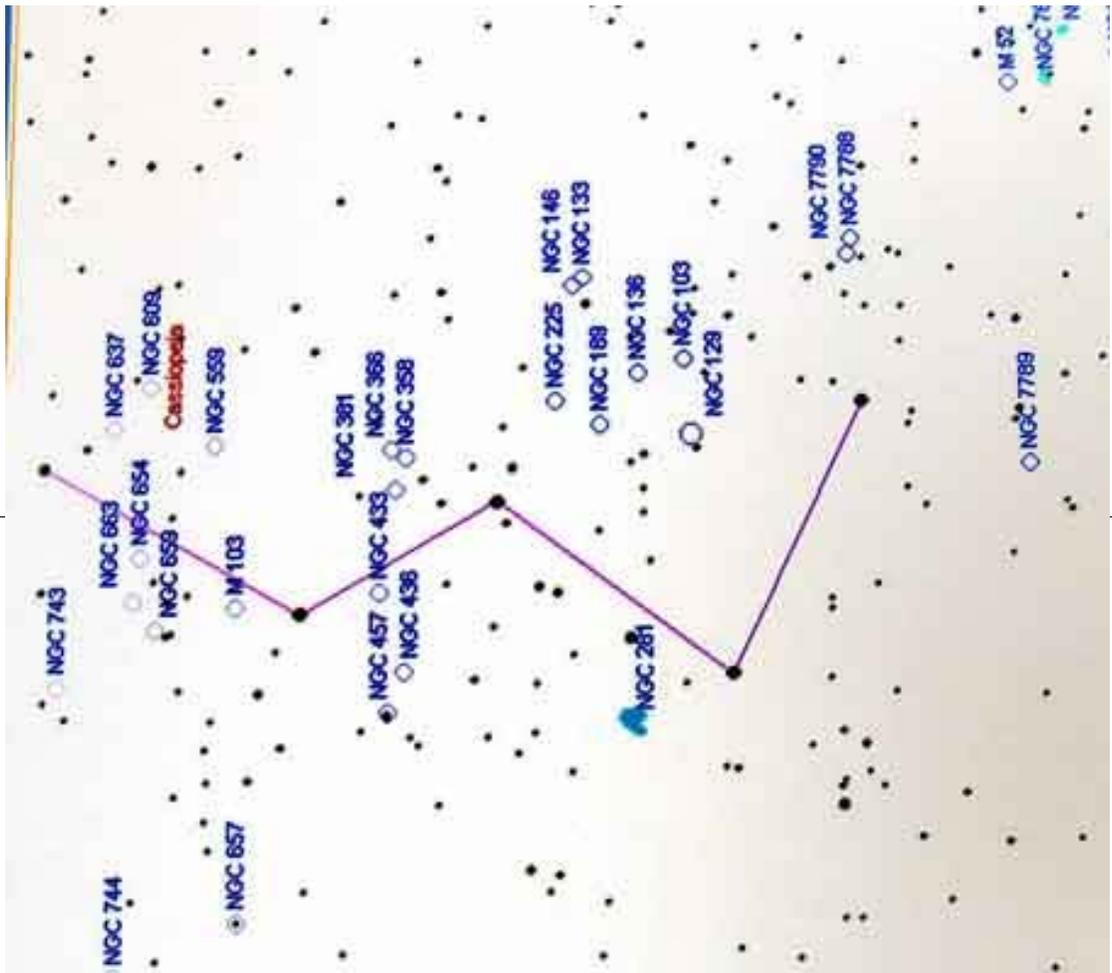
Dig the dust off your scopes and go hunt for the wonders of the night sky in Cygnus and Cassiopeia...

—Tracy Knauss

Finder Chart for NGC 6826 and 7027
In Cygnus



Finder Chart for NGC 281 and 7789
In Cassiopeia



Meeting Minutes—Joint Meeting of Houston/Beaumont Astronomy Clubs

Meeting Date: October 22, 2004

Agenda Items are in **BOLD** type

Introductory Video

A brief video was shown that featured Stephen Hawking and astronomy in general.

Welcome—Bill Leach, North Houston Astronomy Club

Topics featured in the welcome statement included:

Introductions were made—Jay McNeil and wife (featured speaker)

Recognition of the Astronomy Day Committee members including FBAC's Cynthia Gustava (If I missed anyone, let me know.)

Recognition of Volunteers and Sponsors

Recognition of Bob Rogers for the Astronomy Day website

An Announcement was made that copies of the light pollution control ordinance for Fort Bend County are available for those who are interested.

A plaque and a meteorite was presented by Joe Dellinger, FBAC Treasurer, to Phil Inderweisen and his wife Pat Tovsen naming asteroid 51415 (2001 ER13) Tovinder in honor of their hard work and dedication to the passage of the light pollution ordinance for Fort Bend County.

The citation sent to the Minor Planet Center reads as follows:

Tovinder 51415 Philip Inderwiesen and Pat Tovsen, Citizens

(51415) Tovinder = 2001 ER13

Discovered 2001 March 15 by Joe Dellinger and William G. Dillon at the George Observatory, Brazos Bend State Park, Needville, Texas.

Dr. Philip Inderwiesen (b. 1953) and his wife Pat Tovsen (b. 1951) are proud citizens of rural Ft. Bend county, Texas. As the area has become increasingly suburban, they have been tireless advocates for the local regulation of light pollution. All who love the George Observatory are in their debt.

Logo Ceremony/Club Introductions

Barbara Wilson, director of the George Observatory, introduced the presidents of the five clubs involved in the joint meeting. Each president then introduced their clubs.

Astronomy Society of Southeast Texas—Bill Christian, president, introduced the club.

Fort Bend Astronomy Club—David Jenkins, president, introduced the club and made mention that this was

FBAC's 20th anniversary year.

Houston Astronomical Society—Steve Sartor, president, introduced the club and their two oldest members.

Johnson Space Center Astronomical Society—Bob Taylor, president, introduced the club and Barbara Wilson mention JSCAS' roots in the Manned Space Center club. They are also working on an agreement with the Boy Scouts regarding an observatory/observing site near Camp Karankawa.

North Houston Astronomy Club—Bill Leach, president, introduced the club and made mention that it was the youngest of the clubs. He also introduced the new George Observatory Logo in a presentation to George Observatory Director Barbara Wilson.

What's Up Doc?

Aaron Clevenson, AL-Cor, North Houston Astronomy Club presented a handout on what's up in the sky for the month of November. The handout was derived from a spreadsheet that Aaron created entitled "What's Up Tonight, Doc?" which is available by e-mailing Aaron at aaron@clevenson.org .

Astronomy Day Announcements

Cynthia Gustava of FBAC announced the rules regarding parking and procedures for Astronomy Day.

Door Prizes

A variety of door prizes that included Randy Brewer CCD images, a Sunspotter solar viewing scope and an Astrovid 2000 were given out. Highlights include the pupil gauge that Cynthia Gustava won and the Randy Brewer CCD image that was won by Dolly Brewer! (Dolly traded the image for a book on meteorites.)

Break

There was a short break.

Call to Order

Bill Christian of ASSET called the meeting back to order and introduced Larry Mitchell who in turn introduced the evening's speaker, Jay McNeil.

Introduce Speaker

Larry Mitchell introduced Jay McNeil with a few personal anecdotes about Jay's development as an astronomer.

Main Presentation—Jay McNeil

Jay's presentation, entitled "Backyard Science and Serendipity" included an introduction of nebula types and where his nebula falls in the classification of nebulae. A gif of McNeil's nebula is available at www.rc-astro.com.

David Jenkins thanked Jay for his talk and presented him with an Astronomy Day t-shirt and the book Star Clusters.

Adjournment

—Jim Ellis

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Dedicated to the acquisition and dissemination of information pertaining to the science of astronomy

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 281-468-8491

We're On The Web
<http://www.fbac.org>



You are invited to submit your opinions for inclusion on this page. Please be thoughtful and respectful of others in your comments. Rants will not be published. All articles should be 450 words or less and are subject to editing for clarity and length before publication. Please submit in Word format to:
stargazer411@earthlink.net

The Fort Bend Astronomy Club meets on the third Friday of every month except for those months when special meetings are called. The next regular meeting will be at 7:30 PM on November 19, 2004 at the First Colony Conference Center, 3232 Austin Parkway, Sugar Land, TX. Dues are \$30/year for the first member, \$5 per additional household member. Student dues are \$15/year.

The **Houston Astronomical Society** meets the first Friday of the month in room 117 of the University of Houston Research Building. The novice program begins at 7:00 PM and main meeting at 8:00 PM.

For the **Johnson Space Center Club**, refer to the JSCAS web site for meeting times and sites. There is a link on the FBAC web site.

North Houston Astronomy Club meets on the 4th Friday of the month at Kingwood College. The meeting starts at 6:45 PM, main meeting at 7:30 PM.

My email address was hacked last week. No, not hacked - stolen. I paid for the service, it was my email address - my own little piece of the vast internet, and it was stolen. The thief was after an unknown address - one that the spam filters didn't recognize. He then proceeded to send spam to countless people under my name. I only found out when the spam filters on other servers adapted and started bouncing emails back to - you guessed it - ME. After what seemed like 16 hours on the phone with my ISP, (turned out it was only 41.8 minutes) there was basically nothing that could be done but wait for it to stop (which it may or may not) or shut down the account. I opted for the second, which of course also resulted in the need to format and completely reload my computer, which took another three evenings.

I hope the thief's parents are proud.

So what does this have to do with astronomy? For starters, go back to last month's newsletter and re-read Wes' article on the revival of AOW. Go ahead - right now. I'll wait here.

Pay particular attention to the three primary attributes of our club. These are the qualities that bind our organization together - but are also to be presented outward to the community. In fact, the first two of these, Teaching and Sharing, imply direct interaction with the public. In the context of an astronomy club the third - Observing - serves as a foundation for the first two. When we get involved in club activities - whether it be at the George, an AOW star party, Telescopes for Telethon outing, you name it - it is first and foremost a service to the community. Many star parties we hardly get more than a glance through our own equipment, but many of the folks who show up have never even seen a 'real' telescope before - much less looked through one. They appreciate it. They appreciate us sharing our equipment, our knowledge, and our time. We in turn get to share our hobby with others. Most folks are dazzled by the pretty 'showcase' objects in the eyepiece - but every so often, someone takes a look through a telescope and is truly awestruck, and a genuine passion for the night sky is ignited.

Had he been instilled with this passion for astronomy, my email adversary might have been out under the stars with a telescope instead of helping himself to my personal property.

So get involved - it's good for the community, and its good for us - both as individuals and as an organization. Your email could depend on it.

—Leonard Ferguson

**FORT BEND ASTRONOMY CLUB
P.O. BOX 942
STAFFORD, TX 77497-0942**



**A NON-PROFIT
ORGANIZATION
DEDICATED TO ASTRONOMY
BY TEACHING, SHARING,
AND OBSERVING**