

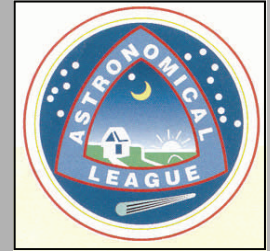


# ASSET NEWSLETTER *STARGAZER*

ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS

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## JULY 2010 ISSUE



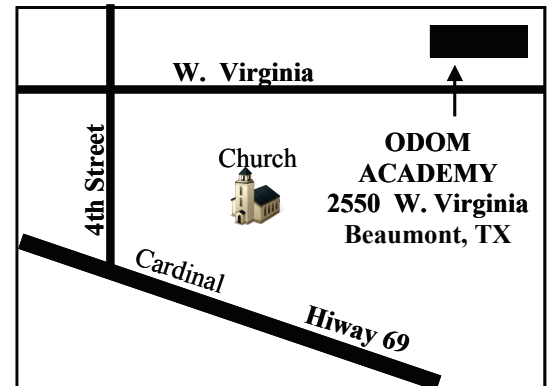
Hello everyone, Well, did you celebrate the first day of Summer, you know the longest day of the year. No, neither did I, and it's hard to believe it's already here.



There is a lot going on this time of year and we have had pretty decent weather with plenty of opportunities to get out and do some observing.. We had a great Ranch star party and I understand several people made it to Claiborne Park. I am really proud of our great club and all the enthusiastic members we have. Each of you make astronomy an enjoyable hobby.

I am looking forward to July's meeting so I can see all of you who missed the last one. We are scheduled to have a guest speaker and we have a jam packed meeting. And don't forget the wonderful desserts. Bring a friend, and I am sure they will enjoy themselves. *Continued on Page 3, (Lonnie)*

THE CLUB WEB SITE,  
**asset-astronomer.org**



**A BIG JULY WELCOME; THE 2ND HALF OF THE YEAR IS STARTING! COME AND JOIN TOGETHER AT OUR MEETING ON FRIDAY THE 9TH. 7 PM AT ODOM ACADEMY.**

## MINUTES FOR JUNE 2010



Even with eight "regulars" absent, there were 22 members/guests at our meeting. Newest member Wendy Wilson brought her husband, Guy, with her. Janie had family members with her. Gerald reported on our X Bar Ranch trip (Eldorado). I also had pictures and comments about the trip. Gerald and Becky Duhon, Howard and Jane Minor, and I met at X Bar during the week of June 6. Chris Mitchell gave a constellation report on Corvus (the crow). Lonnie demonstrated the *Virtual Moon Atlas* program that is available free by going to the ASSET website. Janie and Lonnie "outreached" in Marshall at the Waskom ISD Star Party (Janie's mom is a teacher in Waskom ISD.) Lonnie distributed periodic tables and talked about how the naturally-occurring elements on it make up all living/non-living things on the Earth and these elements were made in the stars. Comet McNaught (C/2009 R1) is visible in the sky. *(Continued on Page 3 - Minutes)*

## THE OBSERVING CORNER - BY OUR MEMBERS

Chris writes: **Hi Asset!**

I guess I'll take Lonnie's advice and write about our star party at "the Ranch". I think it was a great star party! Lonnie, myself, Terry, Will and his friend, Bubba and LeeAnn, Justin, Wendy and Guy, Gary and Alice and Elijah attended the star party. My friend from work, Keith Buckner, lives in Warren and has been waiting a long time to come to one of star parties. He wasn't disappointed! He had a great time looking at Omega Centauri, the Ring Nebula, M13 (Hercules Globular Cluster), Saturn and many galaxies too numerous to mention. Keith couldn't stop talking about Saturn! We all saw numerous meteorites and Keith really enjoyed viewing Sagittarius and the Milky Way through my binoculars. Terry brought his 20-inch scope and I had a good time viewing some of the Herschel 400 objects through Terry's scope. Thanks Terry! The star party wrapped up about 1 a.m. I think we all hated to leave! I can hardly wait for the next star party at "the Ranch"! Wishing everyone clear and dark skies,

*chris mitchell*

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### **Stargazer report from Lee Ann**

As ya'll know I'm not the astronomer in the family. But the Ranch Star Party was so awesome. When we started out there, I just knew it was going to be hot & full of mosquitoes. Then when we drove up and the grass was up to our behinds I knew we were in trouble. Thank you Terry for having a weed eater!! Bubba cleared me out a spot for my chair & a path to the car and I was set. Ya'll have to know I was freaked about snakes because we had a water moccasin earlier that day in our garage and when we left for the SP it was still on the loose.

We had a cool breeze and no mosquitoes. The sky was beautiful and everyone enjoyed viewing. I myself really enjoyed listening to Justin. He was full of information and it was very interesting. There were several of us out there and our new couple, Wendy & Guy, I do believe were blown away. When we loaded up and started out, I looked at the time and could not believe it was 1 am. The time just flew by.

Now Claiborne Park SP was different. It was hot and miserable and lots of mosquitoes. There was only Bubba & myself, Wendy & Guy, & Will came after he got off work. Bubba thoroughly enjoyed himself being able to help Wendy & Guy with their scope and show them some of the night sky. It was a pretty washed out sky. We left there around 11 pm.

*Lee Ann*

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### **Hey all; you need to read this one. It is a little lengthy, but the thrill and excitement of a 1st Star Party gets the adrenalin going and Wendy Wilson writes:**

June Star Party at *The Ranch* in Hillister was our first Star Party experience. And what a *memorable* experience it was! The beautiful setting that was awarded us at the ranch was stunning. Guy and I both were excited to attend our first observing gathering. Being that I don't own a scope nor have I ever looked through one before, I was especially eager to finally get the opportunity see the stars through some really good scopes. My nephew asked me to bring his AstroScan telescope to "get someone who knows what they're doing" to take a look at it if we had time. Shortly after setup, Lonnie came over to help us "see what was wrong" with my nephew's scope, which turned out to be nothing except the sight needed a new battery. Lonnie gave us excellent instructions on how to find, focus & view objects using different eyepieces as they appeared in the night's sky. With some excellent instruction and a loaned battery, we were suddenly seeing Venus & Saturn through my nephew's scope and were astounded when we viewed Saturn through the larger scopes. Everyone was so willing to help and seemed just as excited as I was. It's nice to be part of a group where people are eager to share the experience and to invite others to view through their scopes and binoculars. I was frequently using such exclamations as, "Amazing!" and "Wow!" It was better than I had imagined! That's all it took - I've been interested and excited, but now... I'm hooked! Lonnie was very good to take time out from his observations to coach me on which objects I could find for myself and once I was able to locate them, he would come back to check my work. *Continued top of page 3*

The night was full of rewarding experiences such as being able to view the aforementioned planets, summer constellations complete with some history, numerous satellites as they journeyed across the sky, individual noted stars, globular clusters and a few galaxies. Soon with the help of Lonnie, I was able to view and split double stars and view a double/double. We really enjoyed the evening and getting to visit with our fellow viewers. We're looking forward to many more spectacular parties such as this! Hopefully next time we'll be better prepared. Thanks ASSET for helping make our first Star Party a memorable one!

We were also able to attend the June CPSP and found Bubba & Lee Ann around 7 pm at the pavilion. This time we came a little better prepared with a free standing table for the AstroScan, a couple of tripods which didn't work without the adapter, extra batteries (one to repay the loan that was given to us in Hillister) and plenty of mosquito spray! The mosquito spray came in handy right from the start but we should have brought our portable fan to help us keep a little cooler. Bubba and Lee Ann gave us some good ideas on what kind of sky atlas and sky chart to look for. Around dusk we began to view the glorious 1/4 moon through the AstroScan and Bubba's 8" using several eyepiece filters and magnifications. Soon we saw Venus and then Saturn. As the sky got darker we were able to locate some of the constellations, the summer triangle, and M13. Bubba explained how to use my hand to measure degrees of distance between objects and

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### **Con't. from Page 1, Lonnie's Message**

(If they don't you can blame it on me).

Has anyone gotten up early to see Jupiter? What about the new comet, did you get a peek. Have you seen a sunspot lately. There have been several good ones over the last few weeks. Hopefully Bill will get us caught up on those. For some reason the moon is looking a little brighter these days; maybe I just noticed it more. It still is a great target for some quick observing and every time I observe the moon I see something new. Our closest neighbor and I probably observe it the least. Got to change that, so I guess an Astronomical League program on the moon is on my list of things to do.

**Hope to see you at the meeting, Lonnie**

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(Con't. from Page 1— Minutes)

Discoverer Rob McNaught has now found 54 comets. The comet will vanish into the glare of the sunrise in the last few weeks of June, but will reappear in July, progressively higher in the skies. Japan's Hayabusa unmanned spacecraft returned to Earth in June. Its mission was to collect samples from a near-Earth asteroid. Thanks, Chris, for the refreshments. Alice and Gary graciously agreed to provide the goodies for July. I will be out of town and will take their October slot.

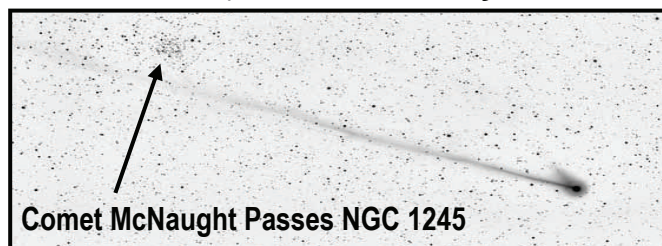
Brenda Tantzen ASSET Secretary

how to find objects using their distance from an object you can easily locate. We also discussed the rotation of the Earth and the seasons and how that relates to what we can see. Even though Will came to meet us about 10:30 pm and we really enjoyed viewing and visiting with our fellow observers, we decided to head home and get some rest. Yesterday, I was at my dental hygienist's office and was sharing our recent experiences with her. She told me her sons are really into astronomy but she had no idea there was a local club. Through my excitement, she began to get excited in helping her boys' interest in astronomy grow. I left her with our web address and my cell number, so hopefully, she will load up her husband and the boys and come visit our next meeting.

### **Wendy**

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### **Comet in the June Dawn (Did You See it)?**



Binoculars were needed to catch Comet C/2009 R1 (McNaught) low in the northeast, maybe naked eye?

The comet was lost to view by June's end — just before it reached perihelion on July 2nd, 0.405 astronomical unit from the Sun. It remains far from Earth throughout this apparition, never ventured closer than 1.135 a.u. (in mid-June). After perihelion it will fade rapidly as it heads to the far southern sky.

# Black Holes No Joke by Dr. Tony Phillips

*Kip Thorne: Why was the black hole hungry? Stephen Hawking: It had a light breakfast!*

Black hole humor—you gotta love it. Unless you're an astronomer, that is. Black holes are among the most mysterious and influential objects in the cosmos, yet astronomers cannot see into them, frustrating their attempts to make progress in fields ranging from extreme gravity to cosmic evolution.

How do you observe an object that eats light for breakfast? "Black holes are creatures of gravity," says physicist Marco Cavaglia of the University of Mississippi. "So we have to use gravitational waves to explore them."

Enter LIGO—the NSF-funded Laser Interferometer Gravitational-wave Observatory. According to Einstein's Theory of General Relativity, black holes and other massive objects can emit gravitational waves—ripples in the fabric of space-time that travel through the cosmos. LIGO was founded in the 1990s with stations in Washington state and Louisiana to detect these waves as they pass by Earth.



"The principle is simple," says Cavaglia, a member of the LIGO team. "Each LIGO detector is an L-shaped ultra-high vacuum system with arms four kilometers long. We use lasers to precisely measure changes in the length of the arms, which stretch or contract when a gravitational wave passes by."

Just one problem: Gravitational waves are so weak, they change the length of each detector by just 0.001 times the width of a proton! "It is a difficult measurement," allows Cavaglia. Seismic activity, thunderstorms, ocean waves, even a truck driving by the observatory can overwhelm the effect of a genuine gravitational wave.

Figuring out how to isolate LIGO from so much terrestrial noise has been a major undertaking, but after years of work the LIGO team has done it. Since 2006, LIGO has been ready to detect gravitational waves coming from spinning black holes, supernovas, and colliding neutron stars anywhere within about 30 million light years of Earth.

So far the results are ... nil. Researchers working at dozens of collaborating institutions have yet to report a definite detection.

Does this mean Einstein was wrong? Cavaglia doesn't think so. "Einstein was probably right, as usual," he says. "We just need more sensitivity. Right now LIGO can only detect events in our little corner of the Universe. To succeed, LIGO needs to expand its range."

So, later this year LIGO will be shut down so researchers can begin work on Advanced LIGO—a next generation detector 10 times more sensitive than its predecessor. "We'll be monitoring a volume of space a thousand times greater than before," says Cavaglia. "This will transform LIGO into a real observational tool."

When Advanced LIGO is completed in 2014 or so, the inner workings of black holes could finally be revealed. The punch line may yet make astronomers smile.

Find out more about LIGO at <http://www.ligo.caltech.edu/>. The Space Place has a LIGO explanation for kids (of all ages) at <http://spaceplace.nasa.gov/en/kids/ligo>, where you can "hear" a star and a black hole colliding!

*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*



More websites for KIDS. The *SciJinks* *WLaboratory* at <http://scijinks.gov> targets middle-schoolers. *NASA Climate Kids* at <http://climate.nasa.gov/kids> demystifies the "Big Questions" about global climate change.

## THE ELDORADO X BAR RANCH JUNE OUTING:

Brenda, Gerald & his wife, and Jane & I spent 5 days and nights camping, site seeing, birding and observing on the X Bar. What a great time. Each of us did our own thing each day, but got the telescopes going each evening. 3 nights out of the 5 were good and the whole thing was certainly relaxing. Brenda did her first tenting and went to the Caverns Of Sonora, as did Gerald & his wife. The temps were warn but there was a swimming pool and always a wind or breeze blowing and in the shade of the lodge porch, which was pleasant. Most of the time we had a 7,000 acre ranch to ourselves; unbelievable!

Anyway Brenda showed her talent writing an *Ode to the X Bar Ranch!* Here it is: Howard

Ode to X Bar  
X Bar, X Bar,  
You're so far.  
Dry and HOT  
Camper I'm NOT  
B U T . . .  
Patience  
Persistence  
Endurance  
. . . BROUGHT  
-calmness  
-learning  
-friendship  
-finding my starting  
FINALLY!  
Thanks,  
X Bar  
Brenda Tantzen

**THE HILLISTER RANCH \$ P was a great event. Jane & I didn't make it, but wish we did as the response from it was outstanding. Here is one more report from Terry Myer making it up there for the first time.**

Hi Howard, Just wanted to write about my first time to observe at the ranch. Before then I hadn't got anything done since I went to Bubba & Lee Ann's. I decided to tackle some of the most southerly objects on the Caldwell list. I picked a spot for the scope and when it got dark, I realized it was in the wrong place! Thank goodness Bubba had his 8" set up, cause that is what I used to get some of the objects, including Omega Centauri. One year, though, I WILL be in the right place at the right time to see it in the 20" with the binoviewers. The sky was best within 30 minutes after sundown. After that, the low lying clouds on the horizon and moisture really increased the light pollution. It felt good to take this challenge and catch a lot of the lowest ones on the Caldwell list. I managed to get 9 for the Caldwell program and 4 for Herschel 400, bringing my total to 25 for Caldwell and 24 for Herschel. One thing I learned that night was how different the tiny Globular Clusters can be. Most look like Galaxies in a smaller scope, but they have individuality in the 20 inch. I resolved a lot of stars within these clusters. Some would take magnification and some wouldn't. I used the 4.7mm Meade with 84 degree field on one. I'll figure out the magnification later. It just felt good to be around everybody and to be observing again. I really appreciate Bubba coming to the rescue with his scope (but I'm still not going to kiss him for that). I definitely like our new observing spot.

**Terry**

### Fort Griffin Star Party...

I would like to invite you to the Fort Griffin annual star party, Friday, August 6 thru Wednesday, August 11th. This is your personal invite . Got a question? Call or email me anytime.

This is one beautiful Texas State Historical Site, west of Fort Worth. This party has been quite small in numbers since it's beginnings in 1988, but this year we have decided to invite all of you. Bring your family or a friend. The skies are VERY dark. Observing the central star in a 14" telescope is a given.

We hope to see all of you there for several nights of great seeing. Let's go!

--

Clayton L. Jeter  
cell: 713-569-7529

## ADVANTAGE

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### Coulter" 10" f 4.5 Dobsonian Telescope For Sale

This is one of my favorites. It is a beautiful scope with great wide-field views. Very clean.

Clayton L. Jeter Call Me

# ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS MONTHLY CALENDAR

~ July 2010 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
The Delta Aquarids Meteor Shower can produce about 20 meteors per hour at their peak. The shower usually peaks on July 28 & 29th. The radiant point for this shower will be in the constellation Aquarius. Best viewing is usually to the east after midnight.				1 <b>Moon farthest from Earth, Apogee</b>	2	3
4  <b>FULL MOON</b>	5	6	7	8	9 <b>ASSET CLUB MEETING 7:00PM</b>	10
11 <b>LAST QUARTER</b>	12 <b>Mercury 4° North of Moon</b>	13 <b>Moon closest to Earth, Perigee</b>	14	15	16	17 <b>THE RANCH STAR PARTY</b>
18 <b>NEW MOON</b>	19	20	21	22	23	24 <b>CLAIBORNE PARK SP</b>
25 <b>FIRST QUARTER</b>	26	27 <b>Mercury 5° South of Regulus</b>	28 <b>Moon farthest from Earth, Apogee</b>	29	30	31

## The Solar System in JULY 2010 :

**Mercury** - A very difficult month to spot the elusive innermost planet, Mercury, which is embedded in bright dusk after sunset; look on July 27 with binoculars or a wide field telescope only 1/2 degree from REGULUS to see Mercury. And on July 30-31, when the plane will be just to the left of Regulus right on the western horizon about 45 minutes after sunset It will not be seen in dark skies, only in twilight shortly after sunset. - In LEO

**Venus** - Although fairly bright in western skies and somewhat high enough to be seen in dark skies, the planet Venus will begin slowly moving closer to the western horizon which each successive evening as July progresses; by July 9, near the end of twilight in the far western sky, a wonderful grouping of Venus and Regulus will be seen when the pair is only about ONE DEGREE apart! - in LEO.

**Mars** - Mars is teamed up with Saturn and Venus as bright naked eye planets this month and by mid-month, Mars will be a short distance to the left of Venus. Note the very red color of Mars as compared with the brilliant white of Venus. - in LEO

**Jupiter** - The mightiest of planets, and this month the most magnificent, JUPITER is found easily rising about midnight local time and will be high overhead at dawn. The apparent diameter of this large planet will be about 42 arc seconds in July, large enough to spot the Great Red Spot, storms and the many belts and zones of this gaseous world. - In PISCES

**Saturn** - Saturn is very low in western skies at the end of evening twilight; this will be one of three bright planets visible to the naked eye in the evening. Saturn's rings are still tilted toward Earth nearly edge-on; thus the planet is somewhat fainter in recent years than it can be. It is low in western skies at dark and this will be the last month of the year that it can be favorably viewed in evening skies. - in VIRGO

**Uranus** - Very close (just a degree or two due south) to the bright planet JUPITER, Uranus rises at about 11:30 local time early in July. It is far fainter than the bright Jupiter, shining at only 6th magnitude, but bright enough to spot in binoculars and small telescopes. 6th magnitude - in PISCES.

**Neptune** - This distant world rises slightly ahead of Uranus, about 11:15 p.m. local time, and will be south of overhead by dawn. At 8th magnitude a telescope and good finder chart will be required to find this bluish world.; - in CAPRICORNUS.

**Pluto** - Our most distant world, PLUTO will be high overhead at midnight, somewhat south of the zenith for northern observers. At 14th magnitude on July 3, the planet is about as bright as it can be seen from Earth. There is an excellent feature story and finder charts in the JULY issue of *Sky & Telescope* magazine, pages 60-61. - In SAGITTARIUS.