



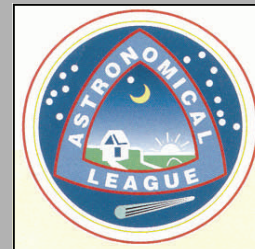
ASSET NEWSLETTER

# STARGAZER

ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS

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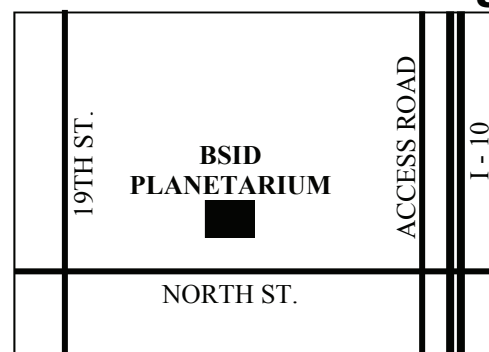
## OCTOBER 2011 ISSUE

**ASSET MEETING IS ON  
FRIDAY THE 14TH, 7:00 PM**

**The pre-meeting meal is at  
*Gino's Pizza and Pasta*  
See Roger's article on  
page 3 for directions**



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



### LONNIE'S WORDS



Hello All; I think the observing weather is turning in our favor. With the cooling weather come steadier skies, less humidity, and hopefully fewer mosquitoes. We should be having more star parties in Hillister, so be looking for those. Maybe we will get to observe together soon.

Houston's A-Day is coming up this weekend on Saturday October the 8<sup>th</sup> from 3:00 to 10:00. If you haven't signed up yet send Cynthia a note at [cynm31@att.net](mailto:cynm31@att.net) and check out [www.astronomyday.net](http://www.astronomyday.net). They could really use your help and you will be amazed at all the people who show up.

We have had eight families sign up for our astronomy class with the BISD. Everyone is excited about helping out, and as usual I am sure it will be a success. Classes start Tuesday, Oct. 4, 2011 - 7:00 pm to 9:00 pm and continue on the 11<sup>th</sup> and 18<sup>th</sup> and will finish on November the 1<sup>st</sup>. They are being held at the BISD Planetarium. Even if you are not teaching, you are welcome to attend to help out or learn some more about astronomy. We are planning an Astronomy Party at Dishman Elementary for the participants of the class. Also we are having a star party at Shangri La on November the 3<sup>rd</sup>, so as you can see we are really busy, and I am glad our club is so involved with bringing our great passion to the public. See you at the meeting.

*Lonnie*

## THE OBSERVING CORNER - BY OUR MEMBERS

Bill Christian has been updating us with emails from the Okie/Tex Star Party, up in the Panhandle of Oklahoma. The 1st few nights were not much good, but he has been observing, and now the last part of the week the skies are going to be better. He has been working on the new Binocular Double Star Program for the AL. I had asked him if the doubles are all *true doubles* or are some just *optical doubles*. This is his answer.

**Bill writes:** Well as best I can tell, there are both. I am not sure as I can tell that a lot are true doubles, but there is not a lot of info about each one, other than amount of separation and PA (position angle). Last night was the first really good night we have had. The sky was actually dark after midnight. But there is still a lot of dust and whatever in the air and seeing was so-so. I had to struggle with 15.1 planetary objects. Looks pretty good for tonight? OH and it's HOT !!, during the day here. About mid to lower 50s at night, not bad.

**Bill**

**Bill writes update:** Well here it is on Thursday night and we are getting in another "all nighter." Somewhat cooler tonight, mid 40s. It was cooler today at about 76 deg. in the sun as opposed to low 90s in the past few days. Some clouds at night and they come and go. Was rather windy today until about 10 pm then it dropped down a bunch. Explorer Scientific showed up today with a truck load of stuff; lots of eyepieces, except the 20mm 100 deg ones they forgot.....bummer! They also have the new 9mm 120 deg oculars with them and all have a 10% discount. *Well that's about it for now.....*

**Bill**

### Various Observing Reports -

The Ranch Star Party went well again this last month. The skies were good and clear up to past 11 pm. Jane worked on her Globular Cluster certificate and got some valuable observing practice star hopping to find the clusters. Gerald was chasing the Red Carbon Stars with his Celestron 8 and iOptron MiniTower GoTo Telescope Mount. Had great views, clear and sharp though the scope. We looked at the Double Double in it, and easily split them, with refractor quality, Terry Myer is closing in on his Herschell 400. He was getting some that he couldn't get out on the South China road because of the light pollution. And Bubba had his 8 inch and working with Will found Comet Garrard again this month. It was a little challenging as it was not near any bright stars. Then we looked at it in Terry's 20 inch, and it was a super view showing a fan tail. More of you would really enjoy the observing and visiting if you could make it up at the ranch.

*LET THE NIGHT SKY LIGHT UP YOUR LIFE .....HOWARD*

### UPDATE ON THE WISE MISSION

Hello Everyone; It looks like the NASA WISE mission during its extended mission NEOWISE, for the Near Earth Objects has discovered that there are half as many dangerous asteroids than previously mentioned. The original number for NEO objects went from 36,000 to only 20,500! That is half of what was estimated originally and that is for asteroids more than 3,300 feet in size, but there are still thousands more yet to be discovered. There is a graph in this article from Space.com that shows original estimations before WISE, estimations during the WISE mission, and the new estimations from data analysis from the post-WISE mission! It would seem that as the solar system ages over time that there would eventually be fewer and fewer asteroids and NEOs, and the terrestrial planets and the Earth's Moon would get more massive over successive eons due to an increasing collection of impacts from coming in contact with those bigger bodies! It is now a 50% decrease in overall readjusted estimates for the total NEOs in the entire inner solar system and out to the orbit of Jupiter. Read the link here: <http://www.space.com/13132-potentially-killer-asteroids-earth-nasa.html>

**"Prof. Comet" Justin**

## Roger's Stargazer Report – October 2011



We have had less than half a dozen orders for the Astronomy Magazine 2012 calendar so we will take orders at one more meeting. But the October meeting will be your last chance to order. The calendars normally sell for \$12.95 but you can get one at half price if ordered early. If you want to place an order bring your payment of \$6.50 per calendar (cash or check) to the October ASSET meeting. These are really nice calendars with some striking photographs of various deep sky objects.

The next big star party is the Eldorado Star Party at the X-Bar Ranch near Eldorado, Texas. It will be from October 24 to October 30. Dark skies and a dry west Texas should make for several good nights of observing. Registration deadline is October 12, 2011 and can be done online at [http://texasstarparty.org/esp\\_reg.html](http://texasstarparty.org/esp_reg.html).

We have two meetings for the remainder of the year for which we will meet for dinner before the meeting. Of course in December we will have our Christmas party at a local restaurant. For our next two meetings we will meet for dinner at these restaurants:

**October 14 at Gino's Pizza and Pasta**  
**November 11 at El Potrillo**

So for the October 14 meeting we will have our pre-meeting dinner at **Gino's Pizza and Pasta, 4318 Dowlen Road**. The restaurant is located across from Parkdale Mall at Westridge Lane. There is a light on Dowlen Road at Westridge and you turn south at the light (that will be left if you are coming from Eastex Freeway – Highway 69). The restaurant will then be on the right. Meet us there about 5:15 PM. Hope to see you there or at the meeting.

*Clear Skies! Roger*

## ASSET Minutes - September 9, 2011



Welcome to new member, Steve Fletcher. Sharon discussed the final details of time/place for the BISD Community Ed beginning astronomy class. She also recommended Dava Sobel's books, Longitude, Galileo's Daughter, and The Planets. There is a new AL binocular program for double stars. Terry has an observation sheet that he created for this program. He'll send it to you if you are interested. Terry was presented with a Sunspotter certificate. There will be a Star Party at Shangri-La in November. The date is not yet set because of a conflict with the final Community Ed class. Will and Justin presented solar and comet reports, respectively. Howard gave a constellation report on Aquarius. Lonnie had some really fascinating pictures of the Moon taken by the LRO. If you weren't at the meeting, you might check these images out on the NASA website. ATTENDANCE: 25.

*Brenda Tantzen, ASSET Secretary*

## YERKES OBSERVATORY IS IN USE

The 40" Refractor at Yerkes has a new life as an education tool for high school science teachers and astronomy students as a 2nd career for the 21st century. I found this short article from the stardate website run and maintained by the McDonald Observatory. The web site is <http://stardate.org/radio/program/yerkes-telescope>. It is no longer a research scope and has not been for quite awhile, but better for it, it has become an excellent tool for science education for public education and getting more young people into the STEM professions. This country could sure use a whole lot more of them!

*"Prof. Comet" Justin*

# Dark Clues to the Universe

By Dr. Marc Rayman

Urban astronomers are always wishing for darker skies. But that complaint is due to light from Earth. What about the light coming from the night sky itself? When you think about it, why is the sky dark at all?

Of course, space appears dark at night because that is when our side of Earth faces away from the Sun. But what about all those other suns? Our own Milky Way galaxy contains over 200 billion stars, and the entire universe probably contains over 100 billion galaxies. You might suppose that that many stars would light up the night like daytime!

Until the 20th century, astronomers didn't think it was even possible to count all the stars in the universe. They thought the universe was infinite and unchanging.

Besides being very hard to imagine, the trouble with an infinite universe is that no matter where you look in the night sky, you should see a star. Stars should overlap each other in the sky like tree trunks in the middle of a very thick forest. But, if this were the case, the sky would be blazing with light. This problem greatly troubled astronomers and became known as "Olbers' Paradox" after the 19<sup>th</sup> century astronomer Heinrich Olbers who wrote about it, although he was not the first to raise this astronomical mystery.

To try to explain the paradox, some 19th century scientists thought that dust clouds between the stars must be absorbing a lot of the starlight so it wouldn't shine through to us. But later scientists realized that the dust itself would absorb so much energy from the starlight that eventually it would glow as hot and bright as the stars themselves.

Astronomers now realize that the universe is not infinite. A finite universe—that is, a universe of limited size—even one with trillions of stars, just wouldn't have enough stars to light up all of space.

Although the idea of a finite universe explains why Earth's sky is dark at night, other factors work to make it even darker.

The universe is expanding. As a result, the light that leaves a distant galaxy today will have much farther to travel to our eyes than the light that left it a million years ago or even one year ago. That means the amount of light energy reaching us from distant stars dwindles all the time. And the farther away the star, the less bright it will look to us.

Also, because space is expanding, the wavelengths of the light passing through it are expanding. Thus, the farther the light has traveled, the more red-shifted (and lower in energy) it becomes, perhaps red-shifting right out of the visible range. So, even darker skies prevail.

The universe, both finite in size and finite in age, is full of wonderful sights. See some bright, beautiful images of faraway galaxies against the blackness of space at the Space Place image galleries.

**Visit <http://spaceplace.nasa.gov/search/?q=gallery>.**

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



## **STILL VISIBLE -Comet Garrard**

Comet C/2009 P1 Garrard - in western skies at dark is moving into the constellation of HERCULES. This comet has been watched and provided a beautiful show throughout mid-year and continues to do so. Look for the comet to be visible in binoculars and telescope with a large concentrated coma and broad fan-shaped tail. The comet will still be visible on the western horizon to shortly after midnight. See the observing article on p.2.

**METEOR SHOWERS FOR OCTOBER** - Watch every night of the month and check the internet for data on each Meteor Shower. No Kidding! October is great!!

## **NEWS NOTES:**

It seems like Robert has been flying a bunch for the last few years. He told me the only observing he has done is from 38,000 feet. Anyway Robert has a book and binoculars he is recommending.

**News notes from Robert M.** Greetings everyone! Came upon these two items for binocular stargazing: A book at Books-A-Million, a Firefly Book, *Stargazing with Binoculars*, 2nd Edition by Robin Scagell & David Frydman, best all-around bino book, I've ever seen, for \$19.95!!! It seems like and a new binocular by Leupold 8x50 (rouge series) at Cabela's, for \$119.95 is Super sharp!!!

***Happy Observing! R.M.***

## **THE ALL CLUBS MEETING AND ASTRONOMY DAY, FRIDAY AND SATURDAY OCTOBER 7 AND 8TH - This next weekend**

The All Clubs Meeting is at the Houston Museum of Natural Science and Astronomy Day is at Brazos Bend State Park at the George Observatory. Please check the volunteer spreadsheet on [www.astronomyday.net](http://www.astronomyday.net). There maybe some positions still needed to be filled. If you are a volunteer you get free admission and a snack and drink during the A-Day period. On Saturday *A-Day Setup* – we'll start at Noon with putting signs in the ground, setting up tables, chairs, tents, food, etc. If you can help, we need you! Usually there are 2,500 to 3,500 people show up to take benefit of the activities. Even if you are not a volunteer make it Friday night to the All Clubs Meeting where they have Dr. Scott Parazynski with his topic, "To Infinity and Beyond" - Scott will give a personal account of his five missions into space, and his post-astronaut adventure climbing Mount Everest in 2008. Again check the web site and schedule you weekend for all the activities.

## **A HEADS UP FROM WILL**

Well it is too late this time. Will was on the radio last Monday on the talk show called Discovering the Outdoors. Will said, "for those of you who don't know I was on the radio again on AM 1300 KSET, to talk about astronomy". Dr. Richard Bothel, does the radio program about the outdoors and outdoor events on Monday evenings at 6 pm. I have been on before, so watch the club web site to see the next time. ***Will***

## **A QUESTION FROM ROBERT MCALISTER -**

Bob actually wrote me the end of last month and missed the StarGazer. Here is his question.

Howard, I have a new iMac and thinking about a new sky program. I have an older version of The Sky 6 on my Dell PC. Is there any new programs that are improved with ease of use? Maybe StarGazer could stir up some observations on this?

So let Bob or myself know what is the latest version of the "The Sky" or other, for the iMac. Bob's email address is [rmcalister@gt.rr.com](mailto:rmcalister@gt.rr.com)

***Bob***

## **Dark Skies Rangers Program of the IDA**

Everyone is a citizen of the world. At some level we should all be its stewards with accountability toward preserving its environment. One component of that is the preservation of dark skies or the prevention of light pollution. The preservation of dark skies is important for many reasons including astronomy, energy conservation, cost, wildlife and even human health. Through the Dark Skies Ranger Program, students learn about the importance of dark skies and experience activities that illustrate proper lighting, light pollution's effects on wildlife and how to measure the darkness of your skies. A highlight of the program is the citizen science project, GLOBE at Night, which enlists the help of students to collect data on the night sky conditions in their community and contribute to a worldwide database on light pollution.

# ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS MONTHLY CALENDAR

◀ September		~ October 2011 ~					November ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
						1 CLAIBORNE PARK SP	
2	3 FIRST QUARTER	4	5	6	7 HOUSTON ALL CLUBS MEETING	8 <u>A-DAY</u> GEORGE OBSERVATORY	
9	10 Columbus Day	11 FULL MOON	12 Moon farthest from Earth, Apogee	13	14 ASSET CLUB MEETING 7:00PM	15	
← EARTH SCIENCE WEEK →							
16	17	18	19 LAST QUARTER	20	21	22 RANCH STAR PARTY	
23	24	25	26 NEW MOON	27 Moon closest to Earth, Perigee	28	29 CLAIBORNE PARK SP	
30	31 	Notes:					

## The Solar System in OCTOBER 2011

**Mercury** - Mercury is in the glare of the sun pretty much all month and difficult to see. - In SCORPIUS

**Venus** - Now setting during evening dusk, . Telescopically this most brilliant of all planets will appear as a roundish orb about 95% illuminated and very large telescopically. I would recommend that those with GO TO telescopes to attempt to find Venus in the daylight hours, just before sunset, being VERY careful to avoid accidentally aiming your telescope at or near the sun's damaging rays. - in SCORPIUS

**Mars** - The Red Planet during the first week of the month rises about 2 a.m. local time due east as a bright star west of brighter REGULUS. From October 20-23, watch as the waning crescent moon thins and moves toward reddish Mars. Telescopically Mars is a very disappointing and tiny orb. - in CANCER

**Jupiter** - The Solar System's king of planets is the only planet that will provide satisfying telescopic views this month; it is at opposition on October 28. Its brilliant yellow is reflecting sunlight from the cloud tops of this gaseous world. This will be the most favorable month for observing this gas giant for changes in the Great Red Spot and the many belts and zone cloud tops that the planet showcases - In ARIES

**Saturn** - Saturn is now in conjunction with the sun, and is not visible this month. - in VIRGO

**Uranus** - This very dim object can actually be seen in binoculars if one knows exactly where to look as a very blue-green star like object of magnitude 5.7. The planet is highest in southern skies at about MIDNIGHT local time. This is an ideal time to spot this planet since it will be only a few degrees east of the nearly full moon on Oct. 10. - in PISCES

**Neptune** - At a faint magnitude 7.9 the distant Neptune is found in the south of overhead about 10 a.m. local time.; note that Neptune is "well ahead" brighter nearby Uranus this month. - in CAPRICORNUS.

**Pluto** - Now in the high evening skies, this 14th magnitude distant planet is fairly placed for telescopic examination, almost directly overhead at 7 p.m. local time; the planet is still located high enough for observations. At least an 8- or 10-inch telescope will be required, as will good star charts. - In SAGITTARIUS