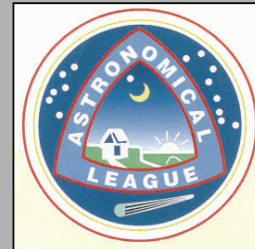




ASSET NEWSLETTER

STARGAZER

ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS
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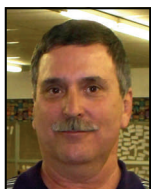
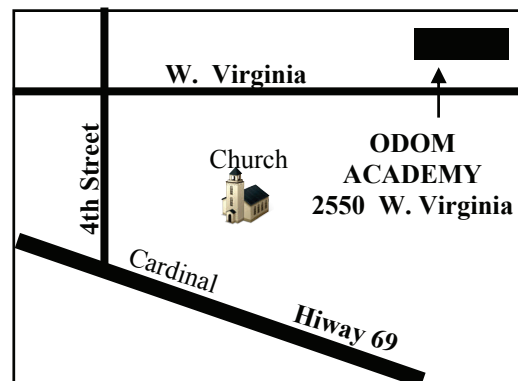
JUNE 2010 ISSUE

ASSET MEETING BACK
AT ODOM,
SEE MAP ON THE RIGHT.



THE CLUB WEB SITE,
asset-astronomer.org

**ASSET JUNE MEETING IS
FRIDAY THE 11TH, 7:00 PM,
JOIN US FOR OUR EATING "GET TOGETHER"
AT 5:15, CHILI'S, JUST OFF I-10**



FROM OUR PRESIDENT, *Hello ASSET members*

The heat is on, so everyone be wary when your outside working. Drink plenty of fluids and take plenty of breaks. Don't forget to bring the scopes out in the cooler evenings. The planets are putting on a good show and the moon is always a great target. I keep waiting for the Sun to get exciting, but I guess it's not quite ready. Our club is really growing as people are finding us on the web. Make sure you welcome our new members and make them feel like they are an important part of our club. Hopefully with the warmer weather we will have more opportunities to go star gazing at the ranch. We had a good group at Claiborne Park and had some scouts come look through our scopes. I talked with the scout master about having a star party for them, so that may happen in the future. *(Continued on Page 2 - Lonnie)*



ASSET Minutes - May 14, 2010

Our meeting was at BISD's Murry J. Frank Planetarium. Twenty-eight people were in attendance. Welcome to visitors Mary Kay Manning and Wendy Wilson. Wendy became our newest member at the meeting. They learned about ASSET from the website. Eddie, Janie, and Lonnie received a certificate and pin for the outreach program. Donna and Roger were also included, but were at TSP. Lonnie showed a picture taken by NASA's Solar Dynamics Observatory, launched in February. *(Continued on Page 3 - Minutes)*

THE OBSERVING CORNER - BY OUR MEMBERS



FROM OUR VICE PRESIDENT - May 20th

Hello All,

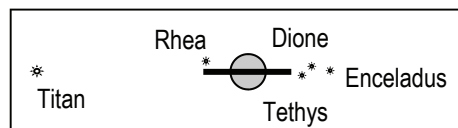
It seems that with all the dry weather we have had lately, I might have logged a lot more time at my eyepiece than I actually have. This time of year can be especially busy, and the fact that it gets dark so late in the evening means that the weekend is the only time I get to stargaze. I enjoy getting together with my astronomy friends at our monthly Star Parties, and I encourage everyone to come out and join the fun. We have such a wealth of knowledge and experience in our club and I have learned much from fellow members.

I hope to see you at our next Star Party!

Eddie

MY REPORT ON SATURN - May 20, 9 to 11 PM

Hi Team, I am very excited about having my tracking platform working again. Bill helped build it for me in the beginning, and the electric motor went out a few months back, and now Lonnie got me fixed up again. Anyway I got out to see how it was working, and after a while turned my scope on Saturn. I was surprised to see how clear and sharp the image was on Saturn. I quickly saw a few moons and then noticed a few fainter ones. With Titan and others it counted up to 5 moons. I made this drawing of what I saw, and if you can watch for a while you can tell the moons are moving in their orbits. There was some faint grey bands on Saturn's surface and a very distinct shadow line on the top of the rings in my Newtonian. Saturn was much more interesting this year with the rings starting to open up, as I could see dark area between the rings and the planet periodically.



LET THE NIGHT SKY LIGHT UP YOUR LIFE HOWARD

BILL'S VIEW OF THE TEXAS STAR PARTY - May 8th to the 15th



TSP had 3 very good nights to observe. Sunday we set up and in the late afternoon about dinner time we had a little rain, and of course my scope was all uncovered. The next three nights were very good as you can see from the pix enclosed. Then Thursday the night was windy, and I went with a few friends up to the 48" dob to view stuff, and after about 30 minutes the wind laid down enough where we could use the 48" scope. But after a couple hours the humidity came in and got up to the high 90% range, and we had to quit. McDonald Obs. had already closed up for the night. And a light fog set in on us. We had a pretty good wind every day during the day time and even a few scopes blew over. But at night the winds usually laid down ok. Friday night was lousy for seeing and we had some clouds, and Saturday was about the same way. So all the observing was done M-W and that was about it.. There were 457 people to make the TSP this year, and the prizes were a bit low as compared to the past. But all in all it was a pretty good TSP. You all need to start planning for next year!



The Milky Way & Bill on the ladder

BILL

(Con't. from Page 1 - Lonnie)

Gerald came through again and donated a go to mount and I have a 5" Mak scope, so when I get it working correctly we will have a nice "go-to" club scope to loan out to members. Make sure you make the June meeting and bring a friend. we will have a lot of information and don't forget those great refreshments! Also if you get a chance, join us at the pre-meeting meal. **See you there!! LONNIE**



WILL'S WORDS

Well it's another month and observing hasn't been the greatest. A few clear nights here and there but overall not too great. However that hasn't stopped me from breaking out the scope and hitting a few targets between the clouds. Saturn has been really great recently. The rings are opening up and the moons are shining bright. Also I've been checking out some globular clusters over in Hercules and in Scorpio. Very interesting objects. I'm slowly building my eyepiece collection as I have added a Zhumel 2 inch 2x barlow lens and an Astro-tech Paradigm 8mm. More to come I have a feeling!! I hope everyone is making time to get out and observe. Some very nice objects are coming up so keep those scopes out!



Will's Saturn Pic

Clear Skies! Will



TREASURER'S TIDBITS

TSP 2010 has come and gone. We had about 3½ nights of good viewing and another 1½ of fair. The forecast was such that by Saturday the observing fields had been emptied of almost all scopes and that forecast proved to be pretty accurate. But the amount of viewing time was similar to most week long star parties since it is often hard to get seven good viewing nights in a row. We have seen better and worse TSP's so this one was fairly average for TSP as far as viewing was concerned.

It was interesting that the attendance was the same as one of our favorite open clusters, NGC 457, E.T. (457 attendees). We again enjoyed a "private" tour of McDonald Observatory with special emphasis on the Hobby-Eberley scope. The "private" tour is for TSP attendees and they really give you a behind the scenes tour which is much better than the public tour. You will see areas on the private tour that the public never sees. Unfortunately the original telescope at McDonald, the 82" Struve scope, is no longer on the private tour. They have concluded that emergency exits are not sufficient so

for now it is only open to astronomers who are using it.

By the way, did you know that you can get a lot of interesting information on all of the McDonald telescopes and the observatory at their web site, <http://www.as.utexas.edu/mcdonald/mcdonald.html>? You can even download the user manuals for the 82" and 107" telescopes.

We'll miss the June meeting so we have not included a restaurant at which to meet for dinner before the meeting. Hopefully someone will circulate an email with a place to meet for dinner. See you at one of our star parties or at the July meeting.

Clear Skies! Roger

(Con't. from Page 1 - Minutes)

Eddie gave a report on nebulae. Lonnie reported on a good website to check out: www.galaxyzoo.org. There were pictures from the recent Shangri-La Star Party. We also looked at pictures from Jupiter showing that the southern equatorial band/belt is obscured by clouds. Sharon Rigsby, ASSET member and planetarium teacher, gave us a tour of the sky and demonstrated what she uses to teach students astronomy/earth science. She also gave us a spectroscopy demonstration. Thanks, Sharon. Refreshments were great; thanks Jane and Howard.

Brenda Tantzen - ASSET Secretary

A QUESTION FROM MARY KAY -

Mary Kay Manning, our newest member, sent me a email asking about what the club is doing about **Light Pollution**. Well, nothing! Light Pollution? What? I had to tell myself!

Most people think that light pollution is merely a cosmetic effect that has no real bearing on the quality of human life. Turning the night into day is only a minor setback for the safety all those lights provide, right? Heck no. The domes of light over our cities and towns, come with many terrible side effects.

(Continued on Page 5 - Mary Kay)

Ancient Supernova Riddle, Solved - By Dr. Tony Phillips

Australopithecus squinted at the blue African sky. He had never seen a star in broad daylight before, but he could see one today. Was it dangerous? He stared for a long time, puzzled, but nothing happened, and after a while he strode across the savanna unconcerned.

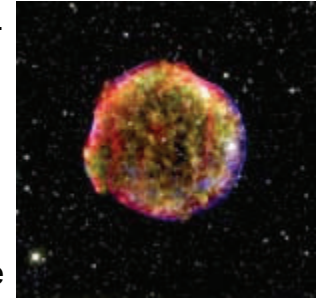
Millions of years later, we know better. That star was a supernova, one of many that exploded in our corner of the Milky Way around the Pliocene era of pre-humans.

Australopithecus left no records; we know the explosions happened because their debris is still around. The solar system and everything else within about 300 light-years is surrounded by supernova exhaust—a haze of million-degree gas that permeates all of local space. Supernovas are dangerous things, and when one appears in the daytime sky, it *is* cause for alarm.

How did Earth survive? Modern astronomers believe the blasts were too far away (albeit not by much) to zap our planet with lethal amounts of radiation. Also, the Sun's magnetic field has done a good job holding the hot gas at bay.

In other words, we lucked out. The debris from those old explosions has the compelling power of a train wreck; astronomers have trouble tearing their eyes away.

Over the years, they've thoroughly surveyed the wreckage and therein found a mystery—clouds of hydrogen and helium apparently too fragile to have survived the blasts. One of them, whimsically called “the Local Fluff,” is on the doorstep of the solar system. “The observed temperature and density of the Fluff do not provide enough pressure to resist the crushing action of the hot supernova gas around it,” says astronomer Merav Opher of George Mason University. “It makes us wonder, how can such a cloud exist? ”NASA's Voyager spacecraft may have found the answer.



NASA's two Voyager probes have been racing out of the solar system for more than 30 years. They are now beyond the orbit of Pluto and on the verge of entering interstellar space. “The Voyagers are not actually inside the Local Fluff,” explains Opher. “But they are getting close and can sense what the cloud is like as they approach it.” And the answer is ... “Magnetism,” says Opher. “Voyager data show that the Fluff is strongly magnetized with a field strength between 4 and 5 microgauss.

This magnetic field can provide the pressure required to resist destruction. “If fluffy clouds of hydrogen can survive a supernova blast, maybe it's not so surprising that we did, too. “Indeed, this is helping us understand how supernovas interact with their environment—and how destructive the blasts actually are,” says Opher. Maybe *Australopithecus* was on to something after all.

Opher's original research describing Voyager's discovery of the magnetic field in the Local Fluff may be found in *Nature*, **462**, 1036-1038 (24 December 2009). The Space Place has a new Amazing Fact page about the Voyagers' Golden Records, with sample images and sounds of Earth. Just in case one of the Voyager's ever meets up with ET, we will want to introduce ourselves. Visit <http://spaceplace.nasa.gov/en/kids/voyager>.

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



NEWS NOTE: Science Daily (June 1, 2010) — On June 3, 2010, six 'astronauts' will commence a virtual trip to Mars. Sealed into a cramped container at the Moscow Institute of Biomedical Problems (IBMP) for 520 days, they will experience the rigours and isolation of long-duration spaceflight.

(Con't. from Page 3 - Mary Kay)

With Mary Kay's "Question" I decided to start an article on *Light Pollution* each month. It is a subject the club should already be addressing. So, let's start and this will kick off the topic.

Outdoor night lighting IS important for the safety of humans at night, but more lighting does not always equal better security. Society is so excited about human safety that we've installed bright lights everywhere. Much of the light goes where it's not needed, like into the sky, into places void of people, and into your bedroom window while you're trying to cash in in some Z's. Outdoor lights should be properly spaced apart, should be fully shielded, and should use energy efficient lamps. If every United States community did this, we would still be safe and save over 10 billion of our hard earned dollars a year that we are currently spending on wasted energy. Plus, the pollution of light will not make you lose that *much* needed sleep.

The wasted energy from light pollution translates into the use of approximately 38 million tons of carbon dioxide released into the atmosphere every year. Light pollution also wastes precious resources such as coal, natural gas, and petroleum, which still account for more than 70% of America's power sources. Burning this amount of coal, natural gas, and petroleum also contributes significantly to air and water pollution, and depletion of Earth's natural resources.

I don't want the article to be boring, so it will probably be short, and to the point. I would love to get the club thinking about what we can do, and so does Mary Kay. The info here was taken from the International Dark Sky Assoc.

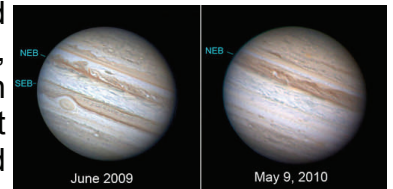
Howard

Jupiter's Disappearing Cloud Stripe Mystifies Scientists

The disappearance of a giant cloud belt around the southern half of Jupiter has transformed the appearance of our solar system's largest planet and left scientists scratching their heads over the huge brown stripe that vanished.

Photos taken May 9 by Australian amateur astronomer Anthony Wesley revealed that

the huge rusty-hued band of clouds, known as the South Equatorial Belt (SEB), has faded from view. The trick



for scientists is explaining how it happened.

"This is a big event," said Glenn Orton, a planetary scientist at NASA's Jet Propulsion Laboratory, in a statement. "We're monitoring the situation closely and do not yet fully understand what's going on."

Jupiter is wrapped in cloudy yellow, brown and white stripes, created by winds that blow at various latitudes and in different directions. The colors of the cloud bands reflect slight differences in chemical composition.

The SEB itself is also massive in size – the cloudy band is twice as wide as Earth and more than 20 times as long. In fact, the loss of such an enormous "stripe" is seen with ease across the solar system with telescopes.

Wesley is a veteran Jupiter-watcher who discovered a dark blemish on the gas giant in July 2009 that turned out to be an impact on Jupiter, most likely from a comet. Wesley also spotted a giant blizzard on Saturn this year that is currently still going strong.

Like other astronomers, Wesley noticed Jupiter's cloud belt fading late last year, "but I certainly didn't expect to see it completely disappear," he said. Scientists can, however, look forward to the SEB's return, which can be a dramatic experience.

Be sure and look on the SPACE.com web site where this info is located; There's wealth of good stuff other than the Jupiter belt situation .

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~ June 2010 ~

ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS MONTHLY CALENDAR

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3 Moon farthest from Earth, Apogee	4 LAST QUARTER ☾	5
6	7	8	9	10	11 NEW MOON	12 ● THE RANCH STAR PARTY
13	14	15 Moon closest to Earth, Perigee	16	17 FIRST QUARTER	18	19 ☽ CLAIBORNE PARK SP
20 FATHER'S DAY	21 FIRST DAY OF SUMMER 7:28 AM, LONGEST DAY	22	23	24	25	26 FULL MOON ○ Partial Lunar Eclipse
27	28	29	30	Notes:		

The Solar System in JUNE 2010



Mercury - The planet MERCURY lingers too close to the sun for viewing for this June. - In ARIES

Venus - A very fine month for viewing the most striking naked eye planet in the skies; brilliant Venus dominates the evening western skies and will be as high this month as you will see it in 2010. - in GEMINI.

Mars - Mars is far from Earth and quite small telescopically, but still an interesting target in June. Naked eye observers will be enjoying a pair of this very red planet with the bright star REGULUS in LEO on June 5-6, when the two will be less than ONE DEGREE apart in the skies; . - In LEO.

Jupiter - The mightiest of planets, JUPITER rises about 2:30 local time at the beginning of the month and will be rising about midnight by month's end. Jupiter is on its way to a splendid opposition this fall, with the giant planet very high in southern skies. This bright yellow planet will dominate the morning eastern skies throughout June. See Jupiter article on page 5. - In PISCES.

Saturn - Saturn is low in western skies by midnight early this month and will SET nearly due west at midnight by month's end. The rings are still aligned almost edgewise to our line of sight, but opening slightly with a ring shadow across the surface. Mars rapidly closes in on Saturn throughout this month. - in VIRGO

Uranus - Uranus is visible easily in a good 5-6 inch telescope; look for this bluish world very, very close to JUPITER all month. However, they appear close from Earth, but in reality are vast distances apart! In fact, Uranus is a whopping 1.5 billion miles FARTHER than Jupiter from Earth. 6th magnitude - in PISCES.

Neptune - Even more distant than Uranus. Neptune rises more than one hour ahead of Uranus (about midnight on June 10) but is more difficult to see; it appears starlike in all but the largest telescopes. High in the southern sky at dawn - in CAPRICORNUS.

Pluto - Now located in the heart of the dense summer star clouds of the Milky Way, our distant planet (still by ASO standards) will be very difficult to locate even with good star programs or star charts. At magnitude 14, Pluto is overhead about 1 am. local time. NOTE that Pluto reaches opposition to the Earth/Sun on June 25 this year and is "closest" to the Earth the day before, June 24! - In SAGITTARIUS.