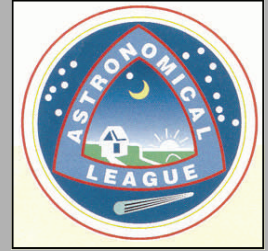




ASSET NEWSLETTER STARGAZER



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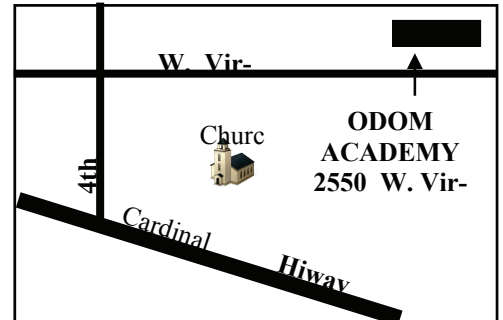
NOVEMBER 2010 ISSUE

ASSET Meeting - Friday Nov. 12th
At Odom Academy Library, 7:00 PM

See Shangri La article on page 3 and check
Roger's article for the pre-meeting dinner!



THE CLUB WEB SITE
asset-astronomer.org



Club Info for November -

Greetings fellow observers. This is a fun time of the year for observing. Cooler weather, lower humidity, daylight savings time ends and NO mosquitoes (One can hope). We have a lot going on in November: Eldorado Star Party Nov 1-7, possible star party at Hillister Nov 6th (Eddie, Howard and I won't be able to attend so if someone wants to head this up, let me know). *Continued on page 3, Lonnie Info*



Minutes of ASSET - October 8, 2010

Great meeting. Eddie did a great job filling in for Lonnie. (CM said, "Lonnie who?") Will brought the solar report. Will is making quantum leaps in his astronomical knowledge/understanding. Great job, Will! **Welcome** Michelle, Spencer, Jamie, Bonnie, and Paydon. **Welcome Back** Dan Harriman. Dan is back at Lamar and ASSET. Yeah! The Houston All Clubs events of Oct. 15/16 were discussed. The Eldorado Star Party is Nov. 1-7. The Shangri-La Star Party is Nov. 9 (back-up 11/11). Times: 5pm-setup, 6pm-eat, 7-9pm public. Our Christmas party is December 3, 6:30 pm at Sanderson's. Eddie had a constellation report on Aquarius. We watched a video on the Milky Way. There was also a video on Halloween images found in space, as seen through NASA's Spitzer Space Telescope called, Hidden Universe: The Trilogy of Terror. A question was asked about the 2 comets that are visible right now and Justin gave a short impromptu report on them. After *Tonight's Sky*, we dismissed. Attendance: 18.

Brenda Tantzen, ASSET Secretary

THE OBSERVING CORNER - BY OUR MEMBERS

I guess you all saw my E-Mail, as the Houston Astronomy Day was another success, with a final count of guests at 2950 for 2010. Those who didn't come missed one of the best years. The All Clubs meeting program was not as boring as some of you perceived in the past. Much lighter and entertaining. Next year plan to participate and join the socializing and fun.

Our observing session after dark was neat with clear skies. We could do deep sky, like the Ring Nebula, and the other show objects of the night sky. Jupiter was a standout, with one moon going behind Jupiter. So thanks to all who were able to come and help out. It was another great year.

Lonnie

COMET HARTLEY 2; STILL GREAT -

Here is a picture of the comet taken by Todd Hargis, our old club member. Comet, "Hartley 2" will not be visible to the naked eye, but close. We observed it at the Okie/Tex SP most every night, and watched its rapid movement across Cassiopeia. Easily seen in binocs and you could watch it move in your eyepiece in just a few minutes. We don't get the chance to watch objects actually move very often in the sky because of their distance. Hartley 2 has passed the brilliant star Capella and now is in the constellation Auriga, making the comet somewhat easy to track down. But it keeps moving every day.



V. P. Eddie has his observing report - Saturday night a group of us went to Claiborne to observe under a clear, stable sky and were joined by some new faces! We welcomed Michelle, Spencer, and Cody, who came to observe with us for the first time, and Dan who we all have missed!

I viewed six planets that night, starting with Venus in a waning crescent phase. As the sun set, Mars made a brief, but bright appearance just above the horizon. Jupiter had three moons visible until Io came out of Jupiter's shadow to make it four. I got to observe Uranus and then Neptune in Spencer's telescope. For those of you counting, I looked down under my feet to make an official sixth planet observation!

We all took time to find and observe comet Hartley 2. It was dim, oblong and nebulous, with maybe a hint of a core. This will be worth keeping an eye on! I spent some time searching for the Saturn Nebula, and Will finally found it after some meticulous star hopping. I stayed out extra late, and was rewarded with a view of the Great Red Spot in transit. It was clearly defined with no cloud belt to obscure it, and topping off the view, Calisto was just skirting the bottom of the planet! Claiborne may not be the darkest sky we visit, but it is convenient! *Until next time, Eddie.*

Subject: Will's rant.. :) October has been really nice for observing! The skies have been clear and primed for comet hunting. Comet 103p/Hartley has been getting very nice the past few days. Kelly Taylor and myself have been hot on its trail and are almost ready to start taking pictures. It's been an interesting challenge finding it night by night as it passes us by. When I observe it, all I can really make out is a faint oblong fuzzy smear. Almost what I would account to be a galaxy or nebula, except it moves night to night. If you get a chance get out and look. You won't get that chance till 2016!! Getting friends involved always makes for a better night of observing.

Claiborne Park was a good time as always. A very nice turnout and semi-nice skies. Eddie and I spent a great deal of time searching for things. Found a few, and failed on some others but that's part of the game! The moral of the story? Get out and look up. You'll see something new every time. That part never gets old.

Will

Continued from Club Info, page 1

Shangri-La Star Party Nov 9th. Remember this counts toward your Outreach Award Our monthly ASSET meeting Nov 12th. Claiborne Star Party Nov 13th. Our club is going great and we are having a lot of interest from possible new members. Most of this is due to our great web site, so when you see Eddie give him an Atta-boy. Howard is doing a great job on this news letter and you can really help out. Every time you get out and observe at home or a star party send Howard an observing report and he will include it in our observer's corner. Also if you have interests that aren't astronomy related send him a report on that and he will include that. We really want to know what our members are up to. See you at the meeting.

Lonnie

AS YOU KNOW THE SHANGRI LA STAR PARTY IS COMING UP FAST!

Michael Hoke at *Shangri La* has again asked us to co-sponsor another star party on Tuesday, Nov. 9th, with the rain out day being Thursday Nov. 11th. ***The itinerary: 5:00 p.m.- Astronomers arrive and set up telescopes; 6:00 p.m.- Supper will provided for astronomers and their families; 7:00 p.m.- Star Party Starts; 9:00 p.m.- Start breaking up.***

We need a good turnout of telescopes, as we know there will be hundreds showing up to learn about what they can see. This is before our next meeting, and Lonnie will send out an E-mail as a reminder. This is a week from Tuesday, so be sure and schedule it in. ASSET needs to have 10 or 12 telescopes, so as you can see, it requires a great show of members. It would be great if you would let Lonnie know you can make it. Be sure to wear club Tee-Shirts!

Howard

Stargazer – November 2010

Well October has been pretty much true to form with clear skies and not much rain for most of the month. Hope you got to do some observing. We went all the way to Okie-Tex for observing and skies may have been almost as good here at home.

But speaking of Okie-Tex, this was the first star party I have been to that you could observe all night for just about every night of the star party. We don't count the last night since we don't observe then because we are packed to leave the next day. Okie-Tex was pretty cloudy the last night. And the first night, when you don't usually stay up all night since it is the first day, it wasn't very good after about midnight. But I didn't go in until 6:30 or 7:00 in the morning all the other days.

We will be at the Eldorado Star Party (ESP) the first week of November so hopefully we will have similar clear sky conditions there. The advance forecast looks good so far. I need about 9 more observations to complete the Caldwell List so hopefully I can do that at ESP. Unfortunately everything I need comes up no earlier than 2:00 A.M. and most are up after 3:00 or 4:00 A.M. It may be another long night star party!

The Astronomy magazine calendars are on order and may arrive before our November ASSET meeting. If not we will have them at the Christmas party.

Let's meet for dinner before our November 12 meeting at the ***Cattle Company at 5:15 P.M.*** The address is 5055 Eastex Freeway in Beaumont. We look forward to seeing you there and at the meeting.

Clear Skies! Roger

WEAR YOUR CLUB TEE-SHIRTS AT THE NOVEMBER CLUB MEETING; WE ARE GOING TO TAKE GROUP PICTURES. ALSO, WEAR YOUR CLUB TEE-SHIRTS TO THE SHANGRI LA STAR PARTY. WE NEED TO ADVERTISE THE ASSET CLUB.

Close Encounters with Jupiter by Dr. Tony Phillips

Jupiter and Earth just had a close encounter—and it was a good one. In late September 2010, the two worlds were 31 million km (about 19 million miles) closer than at any time in the past 11 years. Soaring high in the midnight sky, Jupiter shone six times brighter than Sirius and looked absolutely dynamite through a backyard telescope.

Planetary scientist Scott Bolton of the Southwest Research Institute isn't satisfied. "I'd like to get even closer," he says.

Bolton will get his wish in July 2016. That's when a NASA spacecraft named "Juno" arrives at Jupiter for a truly close-up look at the giant planet. Swooping as low as 5,000 km (about 3,000 miles) above the cloud tops, Juno will spend a full year orbiting nearer to Jupiter than any previous spacecraft.

The goal of the mission is to learn what lies inside the planet.

Astronomers have been studying Jupiter since the invention of the telescope 400 years ago, but in all that time the planet's vast interior has remained hidden from view. Even the Galileo probe, which dived into the clouds in 1995, penetrated no more than about 0.1% of Jupiter's radius.

"Our knowledge of Jupiter is truly skin deep," says Bolton, Juno's principal investigator. "There are many basic things we just don't know—like how far down does the Great Red Spot go? And does Jupiter have a heavy core?"

Juno will improve the situation without actually diving into the clouds. Bolton explains how. "Juno will spend a full year in close polar orbit around Jupiter, flying over all latitudes and longitudes. We will thus be able to fully map Jupiter's gravitational field and figure out how the interior is structured."

But that's not all. Researchers have good reason to believe that much of Jupiter's interior is filled with liquid metallic hydrogen, an exotic metal that could form only in the high-pressure, hydrogen-rich core of a giant planet. Jupiter's powerful magnetic field almost certainly springs from dynamo action inside this vast realm of electrically conducting metal.

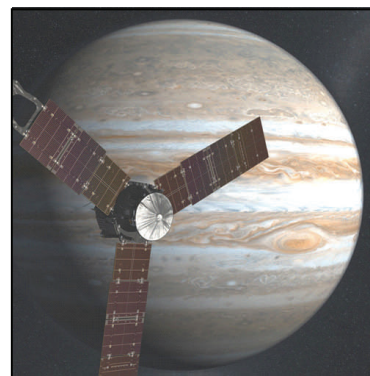
"Juno's magnetometers will precisely map Jupiter's magnetic field," says Bolton. "This map will tell us a great deal about planet's inner magnetic dynamo—what it's made of and how it works."

Finally, Juno will probe Jupiter's atmosphere using a set of microwave radiometers. "Our sensors can measure the temperature 50 times deeper than ever before," says Bolton. Researchers will use that information to figure out how much water is underneath Jupiter's clouds. "Microwave measurements of Jupiter's water content are particularly exciting because they will help discriminate among competing theories of the planet's origin."

Now *that's* a close encounter. Stay tuned for Juno.

Find out more about the Juno mission at http://www.nasa.gov/mission_pages/juno. Play the new Solar System Explorer super game, which includes the Juno Recall mini-game at <http://spaceplace.nasa.gov/en/kids/solar-system>. It's not just for kids!

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



The Juno mission, arriving at Jupiter in July 2016, will help to solve the mystery of what's inside the giant planet's core.

Solar Update

Solar activity has returned to very low levels with only B-Class flares taking place. Flare-Happy Sunspot 1112 has rotated onto the western limb and out of direct earth view. The sun currently has three visible sunspot regions in direct earth view (1113, 1115, 1117). These 3 are all larger than the diameter of the Earth. Most of us kind of relate to that! All of the above was a few days back now 1117 has really developed. The bits and pieces of sunspot group 1117 have gathered themselves into a triple group of planet-sized cores. 1117 is moving off the edge so get out and look if you have the proper Sun filters, as soon as you get the StarGazer.

THE METEORS ARE COMING, BE READY!

November 5 - TAURID meteors - Perfect Year for this Shower!! A very long duration (November 5 -12) meteor shower, that now is defined as having TWO peaks, both seemingly coming from the same radiant very close to the Pleiades star cluster; this double clumping is perhaps due to two distinct breakups of the famous Comet Encke at two different times and thus one cloud of debris trails the other by a week. The new moon will not interfere with sighting of even the faintest of these meteors (about 10 per hour and increasing slightly after midnight).

November 17-18 - LEONID meteors - Not a particularly good year for the normally dependable Leonids: the moon will be at strong gibbous phase and troublesome all night, and although the Earth is somewhat posed out of the main clumps of cometary material from Comet 55P/Tuttle, the parent object of this debris, there is always a chance of an encounter with a secondary pocket of debris during any year. Meteor forecasters are calling for somewhat of a "strong year" in 2010 with perhaps hundreds per hour being seen in dark skies.

DARK; WHAT IS A DARK SKY?

The fact that the sky is not completely dark at night can be easily observed. Were the sky (in the absence of moon and city lights) absolutely dark, one would not be able to see the silhouette of an object against the sky.

The intensity of the sky varies greatly over the day and the primary cause differs as well. During daytime when the sun is above the horizon direct scattering of sunlight (Rayleigh scattering) is the overwhelmingly dominant source of light. In twilight, the period of time between sunset and sunrise, the situation is more complicated and a further differentiation is required. Twilight is divided in three segments according to how far the sun is below the horizon in segments of 6°.

After sunset the civil twilight sets in, and ends when the sun drops more than 6° below the horizon. This is followed by the nautical twilight, when the sun reaches heights of -6° and -12°, after which comes the astronomical twilight defined as the period from -12° to -18°. When the sun drops more than 18° below the horizon the sky generally attains its minimum brightness.

Several sources can be identified as the source of the intrinsic brightness of the sky, namely airglow, indirect scattering of sunlight, scattering of starlight, *and artificial light pollution*.

A LITTLE LOOK AT PLUTO FACTS!

Pluto's average distance from the Sun is about 5.0 billion miles, but its orbit is elliptical. When its orbit approached its nearest point to the Sun, Pluto is closer than Neptune. At its farthest Pluto is 4.6 billion miles.

The "Kuiper Belt" is a band of rocky objects that circles the Sun beyond the orbit of Neptune. Pluto is one of the largest objects in the Kuiper Belt.

It takes Pluto 248 years to go around the Sun. One day on Pluto is 153 hours. Pluto is 715 miles in diameter and that is about 2/3 of the diameter of our Moon.

Pluto has 3 moons, Charon, Hydra, and Nix. Charon is the largest and only a little smaller than Pluto itself and discovered in 1978. Hydra and Nix were discovered in 2005.

In 2006 Pluto was reclassified as a "dwarf planet" by the International Astronomical Union. Similar worlds beyond Neptune are referred to as "plutoids".

NASA's New Horizons space probe was launched in 2006 and is scheduled to reach Pluto in 2015. Even with our modern-day telescopes we still know very little about the "dwarf planet."

Pluto was discovered in 1930 and was one of the original 9 planets.



ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS MONTHLY CALENDAR

~ November 2010 ~

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3 Moon closest to Earth, Perigee	4 TAURID METEORS 3 NIGHTS	5 NEW MOON THE 6TH	6 DARK SKY STAR PARTY, THE RANCH
7	8	9 SHANGRI LA STAR PARTY, Check Article		11	12 ASSET CLUB MEETING 7:00PM	13 CLAIBORNE PARK SP
14	15 Moon farthest from Earth, Apogee	16 LEONID METEORS	17 LEONID METEORS	18 LEONID METEORS	19 FIRST QUARTER THE 13TH	20
21 FULL MOON	22	23	24	25 	26	27
28 LAST QUARTER	29	30 Moon closest to Earth, Perigee	Notes: HEY GUYS, SOMEONE NEEDS TO GET IN TOUCH WITH LONNIE TO HEAD UP THE DARK SKY S P. LONNIE WILL MAKE THE RANCH ARRANGEMENTS FOR YOU! THANKS			

The Solar System in NOVEMBER 2010 :

Mercury - Mercury will be very close to the sun. - In LIBRA

Venus - The brightest of the planets Venus is now emerging in the east to become our "morning star" after spending most of 2010 low in western evening skies. Look for the crescent shaped Venus to be paired up beautifully with the bright star SPICA in the constellation of VIRGO from Nov. 14-16. - In SAGITTARIUS

Mars - Now disappearing from our skies for many months. - In Scorpius

Jupiter - Our largest of planets now is positioned directly overhead during dusk hours and is in western skies by dark....the brilliant yellow planet is still teamed up with nearby Uranus which is slightly above and to the left (east) of Jupiter. - in PISCES

Saturn - The ringed planet rises about 5 a.m. early in November but is bolting upwards to rise around 3 a.m. by the end of the month. By the end of November, note that Saturn will be higher in the eastern sky by dawn and much more "observable" telescopically. If you can locate Saturn with a telescope BE SURE to view it now and into early December for a sight that you will likely never forget: Saturn has regained its famous rings! - in VIRGO

Uranus - Watch this very distant world this month as it reaches high overhead by around 10 p.m. This dim object can be seen in binoculars or better still, small telescope and is easy to locate this month since it is only a few degrees NE of very bright JUPITER. Uranus appears as a very blue-green starlike object of magnitude 5.7; - in PISCES

Neptune - This distant planet is high overhead at about 8 p.m. local time. At a faint magnitude 7.9, the tiny planet looks like very little more than a grey-blue dot in even the largest of telescopes. - in CAPRICORNUS

Pluto - Very, very low in the southwest, but not setting until about 9:30 p.m. local time but still difficult to see this month. By the end of November, the planet is emersed in the glow of twilight. - In OPHIUCHUS

ASSET CHRISTMAS DINNER MEETING IN DECEMBER IS JUST AROUND THE CORNER! IT IS A GREAT TIME EVERY YEAR TO GET TOGETHER. MAKE YOUR PLANS TO ATTEND!