



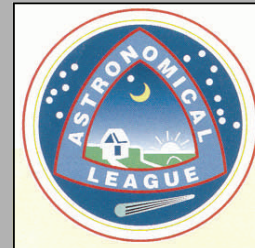
ASSET NEWSLETTER

# STARGAZER

ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS

P O BOX 7943

BEAUMONT, TEXAS 77726-7943



President - Lonnie Mosley  
president@asset-astronomer.org

Vice President - Eddie Treviño  
vice-president@asset-astronomer.org

Secretary - Brenda Tantzen  
secretary@asset-astronomer.org

Treasurer - Roger Dillon  
treasurer@asset-astronomer.org

Newsletter Editor - Howard Minor  
newslettered@asset-astronomer.org

MAY 2011

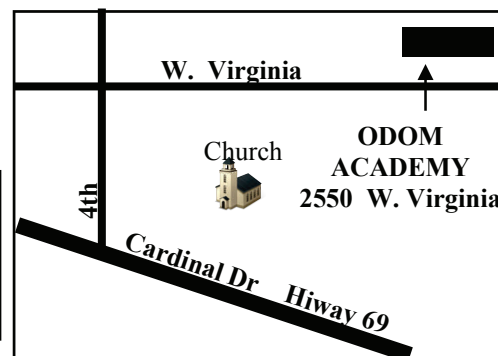
**FRIDAY THE 13TH  
ASSET CLUB MEETING  
7 PM AT ODOM ACADEMY**



MAY 8TH

Our pre-meeting meals have been scheduled for the next 3 months: **May - Outback Steak House**, **June - Johnny Carino's**, **July - Chili's Restaurant**. Everyone is welcome.

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



HI MEMBERS. THIS IS AN INVITATION TO YOU ALL THAT HAVEN'T MADE THE MEETINGS IN RECENT MONTHS. IT IS EASY TO SKIP A MEETING OR TWO, AND LET IT BECOME NOT ROUTINE TO SHOW UP. OUR MEETINGS HAVE BEEN WELL ATTENDED AND INTERESTING, BUT WE WOULD LOVE TO HAVE YOU FOLKS JOIN IN AGAIN WITH OUR ASTRONOMY CAMARADERIE. SEE YOU AT MAY'S MEETING.

### ASSET Minutes Friday, April 8<sup>th</sup>, 2011

Jane substituting for Brenda -



Bill announced that we still have several ASSET tee shirts left. Talk to Linda to get sizes available. Sharon Rigsby thanked everyone for coming to Dishman Elementary. Will Young received the Astronomical League award for the Lunar 100.

Great job, Will!!! Bill reported that there was a lot of solar activity during the month of March, and he reviewed the solar prominences and sunspots. Lonnie gave an interesting presentation on the temperature of stars. Howard showed pictures from the Hodges Gardens Star Party, which was March 31 through April 2,

*Continued on page 2*

### NEWS FROM WILL -

The website is up and running! There are minor defects, but we are working those out as we encounter them. Please email me if there is anything not working. Also send us your astronomy pictures!! We will post them up for everyone to enjoy. Email those to [cuticourt83@gmail.com](mailto:cuticourt83@gmail.com). I think Courtney did a great job. I hope you all do as well!

*Clear skies. Will*

Besides Mother's Day, May has Cinco De Mayo, Armed Forces Day, the Kentucky Derby, Memorial Day; & the Emerald is the bithdaystone.

## THE OBSERVING CORNER - BY OUR MEMBERS

### THE RANCH STAR PARTY - Friday the April 29th

All that showed up were Will, Bubba & Lea Ann, and Jane & I. Saturday night did not look good, so at the last minute the decision was made for Friday night, and we did get to view many interesting objects. The deep sky galaxies were the main interest and using my 17 1/2, the views of Markarian's Chain in the Virgo Cluster, drew the oh's and ah's of the night, counting the many galaxies. Markarian's Chain is anchored by M84 and M86, plus, 8 to 10 more galaxies associated with the chain. Will did M106, the Sunflower galaxy and more Messiers and Caldwell's.

Saturn turned in good views with 5 moons and Cassini's Division. We looked at a few planetaries and double stars. Bubba showed Jane how his Orion Intelliscope controls worked for locating objects. Will also took some star trail photos and Bubba had his camera out too, and he showed me some of his pictures of Saturn, similar to Will's here on the right. There were a lot of satellites, meteors and some points of lights that would light up for a second.

All in all the skies were decent and we had a great time till after 12 when we started putting our gear up.

*Let The Night Sky Light Up Your Life - Howard*

FROM THE "GROVES  
OBSERVATORY"  
LOOKS LIKE KELLY AND  
WILL MAKE A GOOD  
OBSERVING TEAM



Will was at Kelly's and took this picture with the 8 inch Refractor. Taken on an iPhone. Groves Observatory, 450x

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### THE FIRES THAT ARE BURNING AROUND MCDONALD

For the past two or so weeks, the McDonald Observatory's mountain top perch has been under siege, as a catastrophic inferno dubbed the *Rock House Fire* has decimated more than 300 square miles. National Forest Service reports that the fire is now 75% contained and, fortunately, the observatory is out of danger. Its visitor center reopened on Wednesday. Also in the clear is the historic Prude Ranch, which will host the 32nd annual Texas Star Party from May 29th to June 5th. No fires have been reported on the sprawling ranch, and in fact no burned land is visible in any direction from meeting site. "Of course, with the continued dry conditions this may change," notes TSP staffer Dave Clark. "But burned areas tend not to reburn so we may be relatively safe from any new large wildfire."

*sky & telescope*

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#### **Continued from page 1, (Minutes)**

and then he gave a report on how to observe the Horsehead Nebula in Orion. Lonnie showed pictures from a good website, [iphoneastronomy.com](http://iphoneastronomy.com). Due to Eddie's work schedule, Will and Courtney have volunteered to maintain the ASSET website. Will also gave a report on another of his favorite hobbies, music. He writes songs electronically and he played some that he had written. Thanks, Chris for bringing the refreshments! We decided on the following places to eat for our pre-meeting meals in the next few months: **May - Outback Steak House**; June - Johnny Carino's; July - Chili's Restaurant.

Attendance - 23.

*by Jane*

## UPDATE ON A LIGHT POLLUTION SENATE BILL 753 IN TEXAS

Date: Fri, 22 Apr 2011 14:46:12 -0500

Dear friends,

I have just received word this morning that SB 753 in the Texas Senate (in the Intergovernmental Relations committee) will be receiving a public hearing on April 27 in Austin, Texas. As a follow-up on this piece of legislation, SB 753 will enable counties in Texas to enact outdoor lighting controls within 2-miles of an "astronomical observation facility" as defined in the legislation. Note: this is not limited to just McDonald Observatory, but includes ANY observatory that "is established and maintained in part to conduct educational and recreational observations of astronomical phenomena." The text to it can be seen here:

<http://www.capitol.state.tx.us/tlodocs/82R/billtext/pdf/SB00753I.pdf#navpanes=0>

My plan today is to call the committee clerk, Tiffany White, to find out how those interested (including me) can write letters of support and/or speak in favor of this legislation. The senators on the committee include; Sen. Royce West, Sen. Robert Nichols, Sen. Mario Gallegos, Sen. Dan Patrick, and Sen. Jeff Wentworth. The clerk can be contacted at 512-463-2527.

This is a critical piece of legislation that deserves our attention and support as it will greatly expand the tools in our toolbox at the county level. Feel free to call me if you have any questions or want more information. If it is possible to speak at the hearing, I might be attending and would enjoy meeting up with others who would like to attend beforehand.

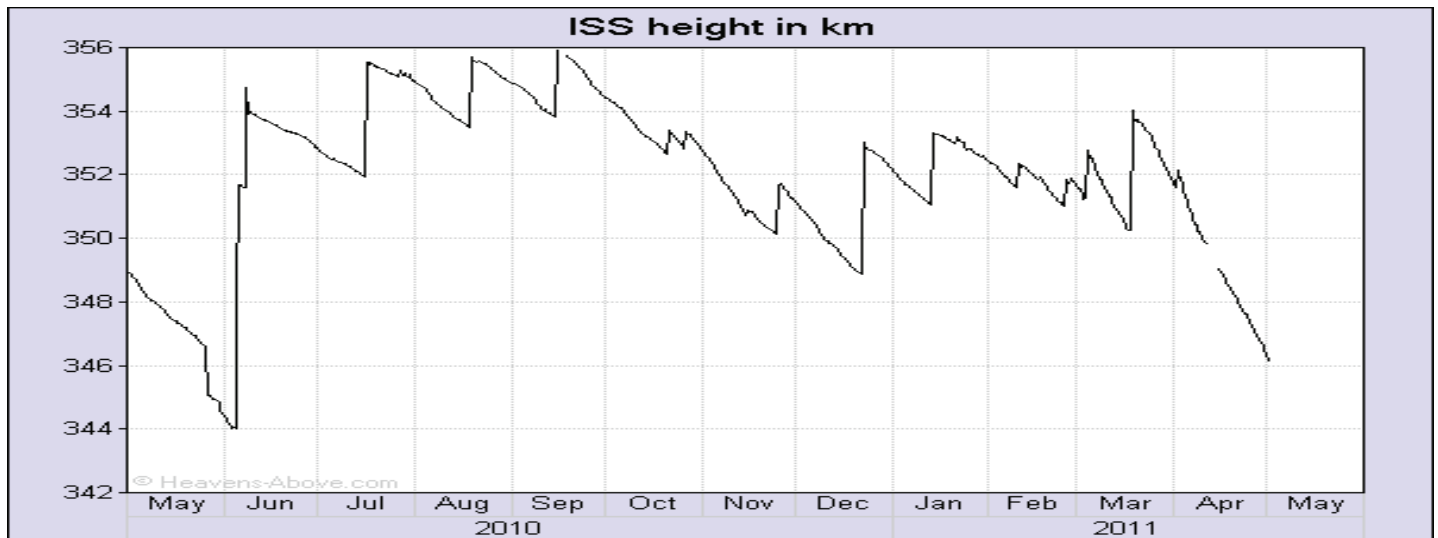
**Dark skies, Benjamin Jones 210-378-0835**

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## HEIGHT OF THE INTERNATIONAL SPACE STATION FOR THE LAST YEAR

This information is not usually seen and this plot shows the orbital height of the ISS over the last year. Clearly visible are the re-boosts which suddenly increase the height, and the gradual decay in between. The height is averaged over one orbit, and the gradual decrease is caused by atmospheric drag. As can be seen from the plot, the rate of descent is not constant and this variation is caused by changes in the density of the tenuous outer atmosphere due mainly to solar activity.

*THE FLUCUATION HERE ONLY VARIES ABOUT 12KM OVER THE WHOLE YEAR*



**SHUTTLE LAUNCH DELAYED AGAIN:** The space shuttle Endeavour will not launch this week, and the six shuttle astronauts have gone back to Houston for training, NASA said on Sunday. Space shuttle Endeavour will not launch on Monday, May 2nd. Ongoing work to repair the problem with heaters on a fuel line for the shuttle's auxiliary power unit will not be finished in time. NASA plans to attempt a new launch "no earlier than May 8th."

## Cosmic Recount by Dr. Tony Phillips

News flash: The Census Bureau has found a way to save time and money. Just count the biggest people. For every NBA star like Shaquille O'Neal or Yao Ming, there are about a million ordinary citizens far below the rim. So count the Shaqs, multiply by a million, and the census is done.

Could the Bureau really get away with a scheme like that? Not likely. Yet this is just what astronomers have been doing for decades.

Astronomers are census-takers, too. They often have to estimate the number and type of stars in a distant galaxy. The problem is, when you look into the distant reaches of the cosmos, the only stars you can see are the biggest and brightest. There's no alternative. To figure out the total population, you count the super-massive Shaqs and multiply by some correction factor to estimate the number of little guys.

The correction factor astronomers use comes from a function called the "IMF"—short for "initial mass function." The initial mass function tells us the relative number of stars of different masses. For example, for every 20-solar-mass giant born in an interstellar cloud, there ought to be about 100 ordinary sun-like stars. This kind of ratio allows astronomers to conduct a census of all stars even when they can see only the behemoths.

Now for the *real* news flash: The initial mass function astronomers have been using for years might be wrong.

NASA's Galaxy Evolution Explorer, an ultraviolet space telescope dedicated to the study of galaxies, has found proof that small stars are more numerous than previously believed.

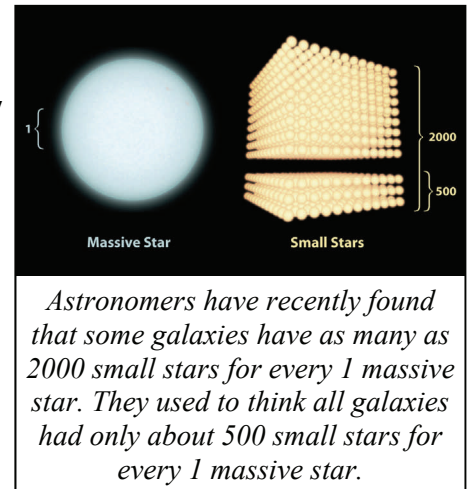
"Some of the standard assumptions that we've had—that the brightest stars tell you about the whole population—don't seem to work, at least not in a constant way," says Gerhard R. Meurer who led the study as a research scientist at Johns Hopkins University, Baltimore, Md. (Meurer is now at the University of Western Australia.)

Meurer says that the discrepancy could be as high as a factor of four. In other words, the total mass of small stars in some galaxies could be four times greater than astronomers thought. Take that, Shaq!

The study relied on data from Galaxy Evolution Explorer to sense UV radiation from the smaller stars in distant galaxies, and data from telescopes at the Cerro Tololo Inter-American Observatory to sense the "H-alpha" (red light) signature of larger stars. Results apply mainly to galaxies where stars are newly forming, cautions Meurer.

"I think this is one of the more important results to come out of the Galaxy Evolution Explorer mission," he says. Indeed, astronomers might never count stars the same way again.

Find out about some of the other important discoveries of the Galaxy Evolution Explorer at <http://www.galex.caltech.edu/>. For an easy-to-understand answer for kids to "How many solar systems are in our galaxy?" go to The Space Place at: <http://tiny.cc/I2KMa>



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



### SPOT THE THIN CRESCENT MOON?

A very fine waxing crescent moon can be followed easily in western evening skies at mid-month; watch early in very bright dusk skies about 40 minutes after sunset, looking WNW on May 14 and you may catch a glimpse of the tiny, tiny sliver of a moon on the very horizon! The bright star ALDEBARAN will be to the LEFT of this tiny crescent, or south of the moon.....binoculars will assist in locating both.

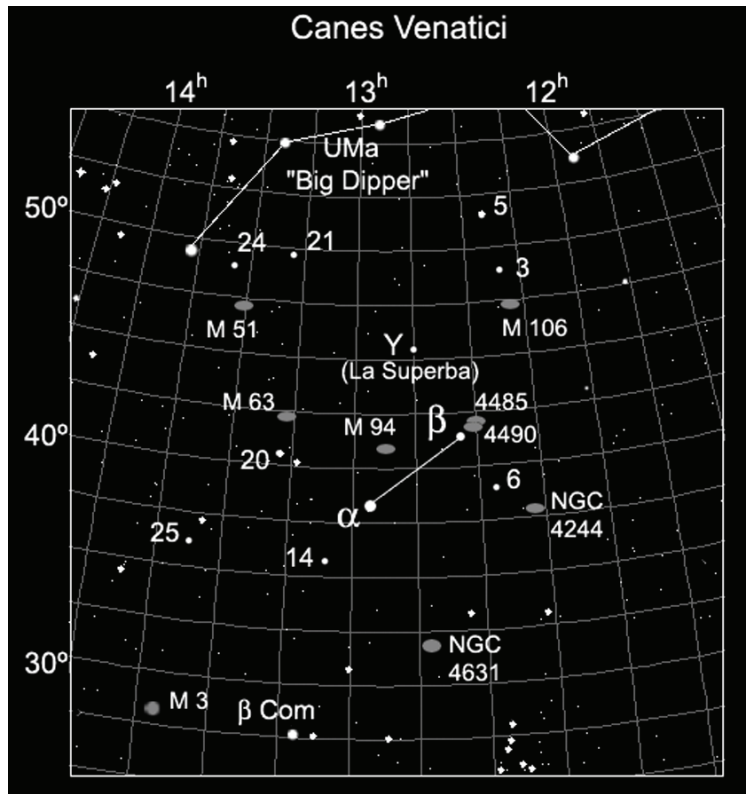
## THE CONSTELLATION OF THE MONTH IS "CANES VENATICI - The Hunting Dogs"

Canes Venatici is one of those obscure constellations tucked in under the handle of the Big Dipper. It has some great deep sky objects.

There are 5 Messiers, *M3* (NGC 5272) is a wonderful globular cluster found roughly halfway between Cor Caroli and Arcturus (in Bootes). *M51* (NGC 5194) or *The Whirlpool Galaxy* is the finest galaxy in Canes Venatici. *M63* is sometimes called the Sunflower Galaxy. *M94* is another spiral, seen practically face-on, and sometimes described as "comet-like". And *M106* (NGC 4258) is another bright spiral.

Other NGC's are *NGC 4244*: a large edge-on spiral, found eight degrees west of Cor Caroli. *NGC 4485* and *NGC 4490* are two splendid galaxies in the same field: 4485 is more compact (this one is sometimes called the Cocoon Galaxy), while 4490 is larger and brighter. Located less than one degree northwest of beta CVn. *NGC 4631*: very large and bright, seen edge-on. Found in a rather barren field, six degrees south of Cor Caroli and two degrees west. In the same field are two more galaxies, *NGC 4656* and *4657*, just southwest of 4631.

The Alpha star is *Alpha Canum Venaticorum* is popularly called Cor Caroli. The star has a visual magnitude of 2.9 (variable), a distance of 110 light years, and roughly the same size as our Sun. It is also a splendid double with, perhaps, a subtle colour contrast. The constellation's great double is, *Alpha*<sup>2</sup> and *alpha*<sup>1</sup>. While both stars are reported to be blue-white, some find them slightly different, perhaps soft blue and yellow, or two shades of white.



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### MORE ASTRONOMY FACTS FOR YOU!

1. The planet Saturn has a density lower than water. So, if placed in water it would float.
2. The speed of light - 299 million meters a second - would still take about 26 billion years to reach one end of the visible universe to the other.
3. Voyager 1 spacecraft is the farthest human-made object in the universe.
4. The star Alpha Herculis is so big that 25 of our entire solar systems would have to be placed end to end to equal the star's diameter.
5. Since Neptune's discovery in 1846, it has made just about three-quarters of one revolution around the Sun.

# ASTRONOMICAL SOCIETY OF SOUTH EAST TEXAS MONTHLY CALENDAR

◀ April		~ May 2011 ~					June ▶
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1	2	3 NEW MOON ●	4	5	6	7 CLAIBORNE PARK SP	
8	9	10 FIRST QUARTER ◐	11	12	13 ASSET CLUB MEETING 7:00PM	14	
15 Moon closest to Earth, Perigee	16	17 FULL MOON ○	18	19	20	21	
22	23	24 LAST QUARTER ◑	25	26	27 Moon farthest from Earth, Apogee	28 RANCH STAR PARTY	
29	30	31	Notes:				

## The Solar System in MAY 2011

*An OUTSTANDING month for planetary grouping! In the morning DAWN skies, MERCURY, VENUS, MARS and JUPITER to all be grouped together in a "tight bunch". On May 8, all of them will be very close together about 30 minutes before sunrise. In fact, even the distant planet URANUS is in the mix.*

**Mercury** - The tiny planet MERCURY will be the most difficult to see, it will be highest in the bright dawn glow early this month and easier to spot during that time - In PISCES.

**Venus** - Brilliant VENUS shines magnificently like a bright jewel above the eastern horizon, just to the upper left of tiny Mercury; and MARS, is to the lower left of bright white Venus - in PISCES

**Mars** - Look to the lower left of Jupiter on May 8, but by the 15th, Jupiter will be on the "other side" of Venus, and Mars will be found only by scanning down and to the left from VENUS from midmonth - In PISCES

**Jupiter** - The mightiest of planets, JUPITER now rises about 5 a.m. by month's end. The gas giant will be located VERY close to the four planets as described above, - In PISCES

**Saturn** - Our only EVENING planet! Now the dominant evening planet, with the warm nights of May, you should invite your neighbors over for a neighborhood star party and impress them with the views of the remarkable ringed planet through your telescope; Saturn is located close to Porrima, one of the brightest stars (although faint by comparison to the really bright stars of the sky) in Virgo. - in VIRGO

**Uranus** - A very good time to attempt to spot the two giant outer worlds, Uranus and Neptune; both rise well ahead of the sun in the southeastern sky and are fairly high in eastern skies at dawn. - in PISCES.

**Neptune** - Now a bit higher than Uranus in SE skies by dawn, - in CAPRICORNUS.

**Pluto** - Now rising high in the sky in the southern constellations of Serpens Cauda and Sagittarius, our most distant world, although no longer considered a "planet" will be favorably placed for telescopic discovery about 2-3 a.m. local time, Pluto is almost due south of overhead about the time that morning dawn breaks!

HEY ALL! DON'T FORGET TO CHECK THE ASSET CLUB WEB SITE DAILY. COURTNEY AND WILL HAVE VOLUNTEERED TO CONTINUE MAINTAINING IT FOR EDDIE. THANKS EDDIE FOR YOUR TIME DEVELOPING THE SITE. IT HAS MEANT SO MUCH TO ASSET.