

Newsletter of the Baton Rouge Astronomical Society



March, 2014

Next Meeting March 10th 7PM at the HRPO



10 second capture of M42 using the 16" OGS at the HRPO

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President's Message

As the saying goes, March comes in like a lion and goes out like a lamb. If the late February weather continues, it looks like that will be true this year.

That is good news for the Hodges Garden Star Party, March 26 – 30. Mark it on your calendars and start preparing. I saw pictures of the Gardens yesterday and some flowering bushes are already blossoming. That is a good sign we should have pleasant temperatures for the event.

That weekend also coincides with the March dates for the Globe at Night program. Globe at Night (GAN) is a voluntary world-wide effort to record the effects of light pollution in different geographical areas. You simply count the number of stars visible in the Orion constellation and compare what you see to the charts on the GAN website. After making the observations over time, an observer should be able to determine whether their skies are diminishing because of light pollution or improving.

We have not yet purchased the solar telescope for our next big raffle prize. We are in the process of switching over our bank account and credit/debit card to the new treasurer. As soon as that is done we will make the purchase. We are leaning more toward the Lunt 35mm < <http://www.optcorp.com/ls-35tha-35mm-h-alpha-solar-telescope.html> >, as it is about the same price and most people who have looked through one think it produces better views than the Coronado PST < http://www.bhphotovideo.com/c/product/324412-REG/Coronado_PST_PST_H_Alpha_Personal.html >. However, we will probably go with whichever one offers the best deal at the time of purchase.

On a sad note, we lost another astronomical celebrity this month. Jean Texereau was a master telescope maker and designer. His book, How to Make a Telescope has been a standard for several decades. He worked on many large and well-known telescopes, including refiguring the 82 inch at McDonald Observatory.

Well, the Winter constellations are still high after sunset, Jupiter as well. Saturn is near meridian as sunrise for you early risers.

Be sure to come to our next BRAS meeting. Usual time, 7 PM at the Observatory. That is, if we don't have another "ice storm" that night.

Clear skies,

Merrill Hess
President

Vice-President's Message

Hello Everyone,

Last month's meeting turned out real well. It was very interesting to see the really large mirror being made and such. The amount of time and effort that goes into building one of those mirrors is incredible.

This month's guest speaker is one of our own BRAS members Brad Schaefer. The topic of this month's meeting is "Nova discovery rate and its evolution in the last 130 years". I really look forward to the talk.

We have some very interesting events / talks planned around the April meeting, more information is forthcoming in the next newsletter.

If you have not paid member dues, it is definitely overdue at this point. I am sure that Trey can take care of that in the March meeting. This is also the last month you will receive the newsletter if your dues are not current. I look forward to seeing you all there.

Regards,
Murali Chakravarthi
BRAS VP



Outreach Report

First and foremost, Sidewalk Astronomy for March has been changed due to Mardi Gras, which causes the libraries to be closed for one reason or another. We have moved it to Thursday, March 6th, at 7PM. This will be a one and done event; if it rains, we won't make it up the following week. The reason is that the time change happens that weekend, and the next week will find sunset too late for us.

Next, we have a request to help out at Bluebonnet Swamp's annual Rockin' at the Swamp event. For several years now, we have brought solar telescopes to this event, and this year will be no different. This is an all day event, and I need as many volunteers as possible to work in shifts. Even if you can only come to relieve someone for a lunch break, that would be appreciated. You don't need to own a solar scope to help out, as just having people there is always a good thing. The date for this event is Saturday, March 8th from 8AM to 4PM.

We have received another request from the Louisiana Earth Day committee to have a presence again this year. Last year, we had two solar scopes as well as a display concerning light pollution; I plan on having a similar setup this year. This is a well attended event, so two solar telescopes would be nice, and three would be better. We will have a tent and a table for shade and to set up information about light pollution. The event is April 27th from noon to 4PM. Parking is a nightmare at this event, so it behooves any volunteers to arrive early. More information will be available on this event as it draws nearer.

Finally, we have received our annual request from Dr. Mary Legoria at Westdale Heights elementary school to help out with their star party. They typically have parents helping their children assemble a Galileoscope, and then we take them outside to view the moon. This year we have the special treat of observing Jupiter. Volunteers are mostly asked to assist the families with their Galileoscopes or personal telescopes, although we have supplied a telescope or two in past years. This event will be March 20th at a time that is TBD, but probably around 6:30. They typically provide food of some kind for the volunteers. This event is rain or shine, if it is rainy, we set up astronomical pictures in the gymnasium, and if it is just cloudy, we do the same thing, but outside.

As always, if you are interested in helping out with any of these, please let me know. Additionally, I will be sending out information and reminders to the volunteer listserv, so if you want to be added to that, let me or Fred Barnett know.

Secretary's Summary

- Hodges Gardens Star Party is coming up on March 26th – March 30th. There is information about this on the website at www.braastro.org.
- Chris announced that BREC is about to finalize the Environmental Sustainability Policy. It was suggested in this document that there should be a review of the Lighting Policy Proposal as drafted by the Highland Road Park Observatory and that this should be formally incorporated into the park planning and operations as appropriate.
- There was a discussion about the road to the dark sky site being closed due to road construction since back in September. There are probably a couple of months more to go on this before it opens back up. Check around with members who might have been out there more recently to get information on a temporary alternate route if you are interested in going. Poppa Chris mentioned that he was looking to find us another dark sky site near Convent at Manresa.
- Ben gave an update on outreach on behalf of Trevor who could not attend. Sidewalk astronomy at the Jones Creek Library was postponed from the 4th and would probably not happen on the alternate date of the 11th due to the weather. The date for March has been moved from the 4th to the 6th due to Mardi Gras. Also Rockin' at the Swamp (Bluebonnet Swamp) is a daytime event coming up on the 8th; they are looking for volunteers to help out with demos and information. If you are interested, please let Trevor or someone know.
- Craig was asking about T-shirts for BRAS members for International Astronomy Day. Also suggested were BRAS badges the club members could make for distribution to the public.
- Chris discussed the upcoming event at the Observatory on April 14th and 15th which is Mars' Closest Approach/Total Eclipse of the Moon. There was talk of starting the BRAS meeting (which will be the same night) an hour early or starting it at the regular time and getting done by 8:00 in order to engage the public. There may be possibly two speeches from the presenter for the evening (a speech for the BRAS meeting and a repeat of that speech later for the public) as well as one from Brad Schaefer.
- Merrill introduced the speaker for the evening, Bill Buck, who had recently returned from a trip to Arizona. He had a slide presentation and videos about his time out there visiting observatories and a mirror lab.
- Merrill noted the passing of John Dobson within the past week who was an ambassador for sidewalk astronomy.
- The Coronado PST has been selected as a future "big ticket" raffle prize. The club is still looking for any and all good ideas regarding future raffle prizes.
- A raffle was held, and the meeting adjourned.

Member Profiles

This is a brand new idea I had to help in getting to know some of our members a little better. For the first edition, I decided to profile two people. One of our youngest members and one of our founding members. I hope to keep this going on at least a bi-monthly basis and I hope you enjoy getting to know some of our members. (Come on out to some meetings and get to know them even more!)

Member Profile: Jacob DesRoches- 13 years old.

Jacob has been an amateur astronomer for almost 7 years now. He credits his Mother (BRAS member Karen DesRoches) with igniting his interest. "I just find it amazing to see God's Word written in the stars," says Jacob.

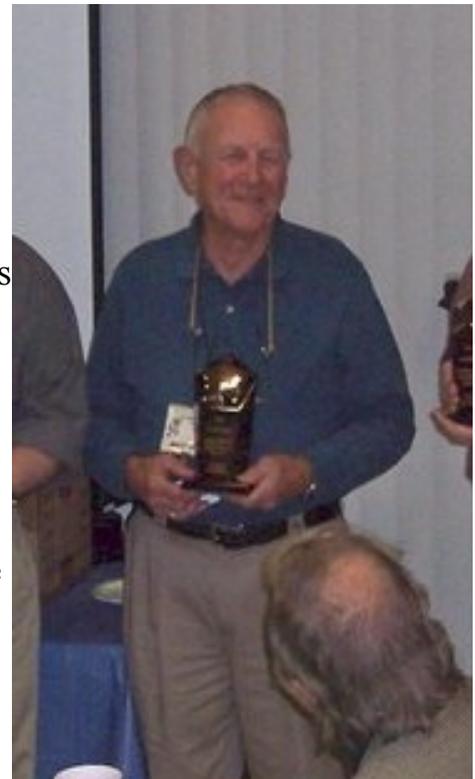
His favorite objects to observe are the Beehive Cluster and the Orion Nebula, but especially the Orion Nebula. He says you can never get tired of looking at the amazing sight of those stars among the glowing gases.

Jacob's favorite astronomy moment was when he recognized his first constellation on his own. As the state of Louisiana's only recipient so far of the Astronomical League's Sky Puppy observing club award, he is well on his way to a lifetime of learning about our universe.



Member Profile: Wallace (Wally) Pursell- 85 years old.

Wally has been into amateur astronomy for almost 77 years. His interest started one evening when his Dad handed him his Zeiss binocular and instructed him to look at the very bright “star” in the sky. He was amazed to recognize Jupiter and its Galilean moons. The interest was cemented for life when soon after he had the opportunity to visit the Lick Observatory. It was easy to be awestruck at the sight of the Great Lick Refractor. (A 36” refracting telescope that was the Earth's second largest refractor at the time, and is still the third largest to this day.)



Wally's favorite object to observe is Saturn due to the ease at which one can see definition and detail. The Moon is a close second for the same reasons.

There are two moments that stand out for Wally in his amateur astronomy career. The first was his successful image of Jupiter through his homemade 10” Dobsonian telescope. Coming up with his image, which was even published in Astronomy Magazine, was not easy since it was before the days of digital cameras and computer processing. Another moment, for which we can all feel grateful, was the successful founding of the Baton Rouge Astronomical Society with Craig Brenden. A lot of time and effort went into not only founding the club, but acquiring its 501(c)3 status. Because of their efforts, we all have this club to be a part of to share our love for astronomy with others in our community.



GREEN LASER LIGHTS

by
Marvin Owen

In recent years, we have been enamored with the use of green laser lights to point out stars, planets and constellations. If we try to point out any of the objects with a pointing finger, the people around us cannot understand what we are pointing to but with the green laser, they can see exactly what we are looking at. Even when the seeing is not good with the light pollution, we can point out a faint object and it becomes visible to the public. Used properly, the green laser has added a lot of benefit to amateur astronomers.

Notwithstanding the good words above, don't be misled to think that the green laser is a toy or something to be used lightly. It can be a killer used in an improper manner. While on the viewing pad, the green laser could put out a person's eye with just a short blast. Even more serious, pointing it at an airplane or helicopter could temporarily blind the pilot forcing him to crash or lose his control of the aircraft.

In February, the FBI announced a program aimed at deterring people from pointing lasers at aircraft—a felony punishable by five years in jail—and rewarding those who come forward with information. A key part of the program is reward money and the FBI will offer up to \$10,000 for information leading to the arrest of any individual who intentionally aims a laser at an aircraft. As the FBI program shows, green laser pointers are legal and certainly have a legitimate use. However, used in the wrong environment, they can be very dangerous.

As to specifics, when aimed at an aircraft from the ground, the powerful beam of light from a handheld green laser can travel more than a mile (over 5,000 feet) and illuminate an entire cockpit, disorienting and temporarily blinding pilots. It has been described as the equivalent of a camera flash going off in a pitch black car at night. Although the small beam may only be 1/8 inch when it leaves the laser, it could expand to be as much as 2 feet wide and completely fill a cockpit at 2,000 feet altitude.

Last year alone, the FBI reported almost 4,000 laser strikes—that is almost 11 per day. And that is only the reported strikes. In December, 2013, the FAA documented at least 35 incidents where the pilots required medical attention after a laser strike.

I think that amateur astronomers should continue to use the green laser as a teaching tool but, by like token, they should be extremely careful about how it is used, what the target in the sky is and should surely not allow small children to play with it like a toy.

HRPO

FRIDAY NIGHT LECTURE SERIES

all start at 7:30pm

7 March: “Extremophiles!”

14 March: “Synchrotron Radiation”

21 March: “NASA Spinoff Technology”

CALL FOR VOLUNTEERS

*Saturday, 15 March from 6pm to 10pm. *Two volunteers in addition to regular BRAS compliment.* **20OGS Upgrading Party.** Marshmallow roast, demonstration tables; small telescope; setup and takedown. Easy; training provided. (Effectively, this is Evening Sky Viewing Plus with food.)

*8pm on Monday, 14 April to 4am on Tuesday, 15 April. *Six volunteers needed for two- to three-hour shifts.* **Mars’ Closest Approach/Total Lunar Eclipse.** That’s right—HRPO will be open all night long! We need BRAS to assist not only with a couple of telescopes, but also with enforcing the on-site policies to keep all patrons safe.

*Saturday, 10 May from 3pm to 11pm. *Eleven to fourteen volunteers; two- to four-hour shifts.* **International Astronomy Day.** Staffing of front desk, children’s rides, raffle ticket “booth”; operating telescopes. All needed training given.

SOLAR VIEWING

8 March and 15 March from 12pm to 2pm

HRPO personnel have been astonished at the incredible views through the facility’s Coronado SolarMax II. Merrill took a look on 15 February and seemed extremely impressed. Flares, prominences, sunspots, plages...BRAS members are encouraged to come see the action within the next few weeks, before it begins to taper off in the summer.

CLOSING, 26 MARCH TO 29 MARCH

HRPO will be closed on these dates for the Hodges Gardens Star Party.

GLOBE At Night

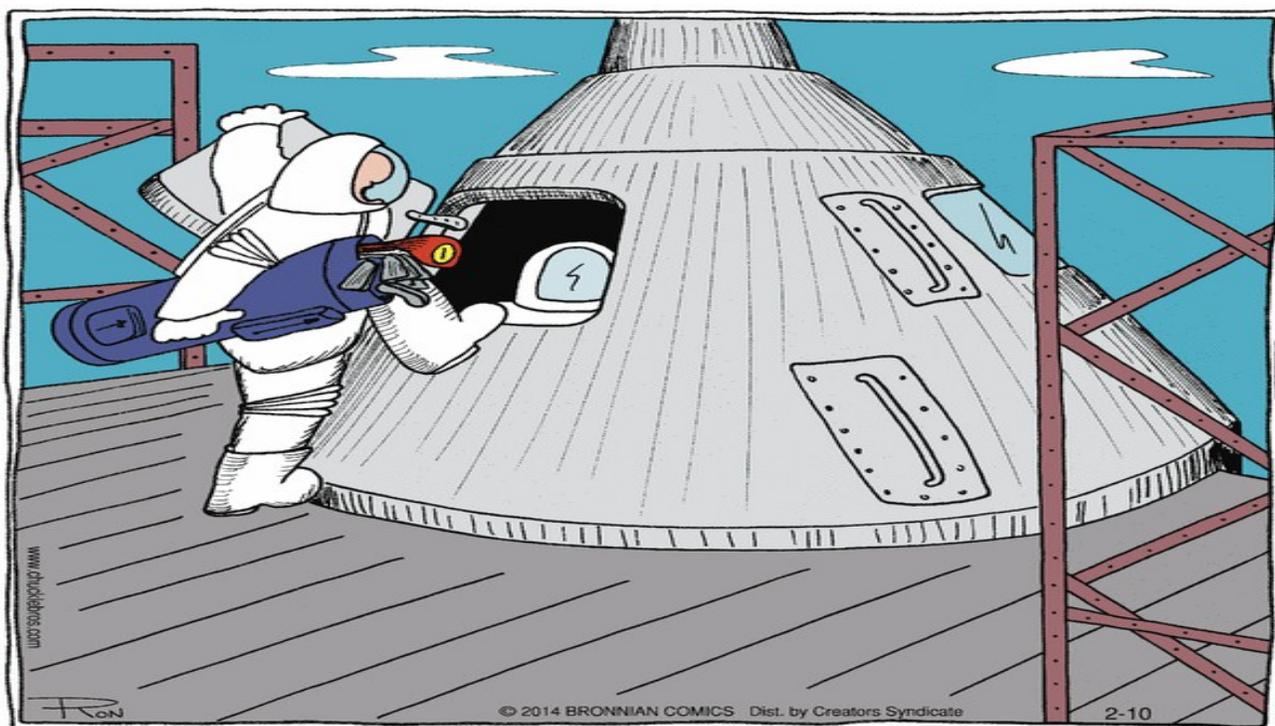
*now through 28 February and
21 March to 30 March*

Everyone's favorite winter light pollution exercise is back...except it's no longer just for winter. During 2014 the GLOBE at Night staff will collect observations during *all twelve* New Moon periods!

This is an excellent time to start compiling a good historical record of sky glow in Baton Rouge. Each BRAS member should take at least one measurement per season during 2014. The GLOBE at Night website makes it as easy as possible, with step-by-step instructions and an downloadable instruction manual. (In February and March, participants use the constellation Orion.)

The heading on this page hyperlinks to the BRAS Forum thread devoted to GLOBE at Night. Visit there regularly for updates and answered questions.

One will notice that the March session includes the time span of the [Hodges Gardens Star Party](#).



“Well, you better **MAKE room, Pal, because I never go **ANYWHERE** without my clubs!”**

20/20 Vision Campaign

Deadline: November 2017

SQM Goal: 20.0 (back viewing pad at HRPO)

THE FOLLOWING TASKS WILL BE ACCOMPLISHED BEFORE THE RELEASE OF THE APRIL NIGHT VISIONS.

- * “before” readings taken near traffic light intersections
- * request to the EBRP Public Works Department to shield street lamps at those same intersections

THE FOLLOWING TASK IS ONGOING AND NEEDS TO BE PERFORMED BY MULTIPLE B.R.A.S. MEMBERS

- (1) looking for new construction in East Baton Rouge and adjacent parishes
- (2) contacting contractor/owner or government entity and requesting that any outside lights installed be dark-sky friendly
- (3) introducing the campaign to BRAS members’ homeowners associations

Assistance greatly appreciated.

Remember—the first measurement is in May!

IMY © IRMA ERIKSSON

<http://www.imycomic.com>

#506 - 'PROPER USE'



Imagine Your Parks 2: Better Parks, Better Living

As we all know, an astronomical observatory needs a certain type of environment to function properly. One of the most pressing concerns at this time is the re-darkening of the sky above HRPO's domes. This would be incredible and thrilling to accomplish step-by-step over the next few years, especially since both large professional telescopes have new motors, new computers and new operating programs. Capping/shielding of lights in the local area would also contribute to the re-darkening of skies above most BRAS members' residences.

Thanks so much to Wally, Thomas and Susan. These are the BRAS members known to have each attended at least one meeting to show support for dark skies over HRPO.

Anyone else interested in the most successful future for HRPO (and the darkest skies for local amateur astronomers and schoolkids) should attend the meeting most convenient for him or her. If one's residence is too far away to show up for a gathering in-person, by all means call BREC directly at (225) 272-9200, email planning@brec.org or use the powerful [Mind Mixer](#) interactive tool.

Several meetings occur simultaneously. All of the community meetings below will run from 6pm to 7pm.

Tuesday, 25 February = [Highland Road Community Park](#) / [River Center Branch Library](#) / [Greenwood Community Park](#)

Tuesday, 11 March = [Howell Community Park](#) / [Santa Maria Golf Course](#) / Jefferson Methodist Church

Thursday, 13 March = [Bluebonnet Regional Branch Library](#) / [Cedar Ridge Avenue Park](#) / [Church Street Park](#)

Tuesday, 18 March = [Monte Sano Park](#) / [Lovett Road Park](#)

Thursday, 20 March = [Independence Community Park](#)

PARISH-WIDE MEETING on Thursday, 1 May from 6pm to 8:30pm = [Independence Park Theatre](#)

Monthly Observing Notes

Constellation of the Month- Lynx

RA 8 Hours, Dec. +45

Helvetius named the constellation (in 1690 AD); located between Gemini Aurignac, and Urea Major, Lynx mainly because it is so dark that one needs the superb eyesight of the nocturnal European lynx to see objects in it. Lynceus of Greece was said to have the ability to see in the dark of night and underground, and through trees, walls, and earth. He used this ability to help his brother, Idas and himself through many adventures, including the Calydonian Boar Hunt, and the Argonaut quest for the Golden Fleece. His last act was to use his sight to save the life of his brother who was about to be ambushed.

Another Lynceus in another Greek tragedy was the son of Aegyptus and the sole survivor of the Aegyptides, who were killed by their cousins, the Danaides. In a time when quantity of children ensured and signified power in Egypt, King Belas of Egypt, son of Poseidon, had two sons (of many children), who in their turn had fifty children each. King Danaus fathered fifty daughters, the Danaides, while his twin, King Aegyptus, fathered fifty sons, the Aegyptiids. When these in turn were old enough to marry, Aegyptus compelled Danaus to marry off his daughters to Aegyptus's sons. Danaus daughters, on Danaus's order, avenged this disgrace by killing their husbands on their wedding night. However, Lynceus escaped, being spared by his wife, Amymone (Hypermetra), because he had spared her virginity. Lynceus took refuge on the high plains of Lyrcea near Argos, where the Nymph Io, ancestor of Belus, was born and where the town of Lyrcea or Lyrceia was erected. Amymone hid in Larissa, the citadel of Argos. Until Danaus died, they lived apart and signaled each other by waving torches. So they became known as the Lychnobioi, the ones who live by lamplight.

There finally came a time when Danaus died and Aegyptus left to rule Egypt after his son's murders. Lynceus and Amymone left their sanctuaries, reunited, and came to rule Argos. The Danaides, except for Amymone, were punished for the murder of their husbands by spending eternity filling colanders with water in Tartarus.

Named Stars

Alsciaukat (31 Lyncis), "as-sawkat", "Thorn", also sometimes called Mabsuthat, "al-mabsutah", "The Outstretched Paw", mag.4.25, 08 22 50.13 +43 11 18.1.

Deep Sky

NGC 2683, "The UFO Galaxy", (Herschel 200-1), mag.9.8, 08 52.7 +33 25, 9.3' x 2.5' in size. A very bright, large, elongated, unbarred spiral galaxy nearly edge on.

NGC 2419, "The Intergalactic Wanderer", (Caldwell 25), mag. 10.3, 07 38 08.51 +38 52 54, 4.7' in size. Located about 7° north of Castor (in Gemini).

NGC 2537, “The Bear Paw Galaxy”, (Arp 6), mag. 11.7, 08 13.3 +45 59, 3.1’ in size. Paired with NGC 2537A, a pretty bright, large, roundish blue compact dwarf galaxy. NGC 2770, “The Supernova Factory”, mag.12.2, 09 09.6 +33 07, 3.6’ x 1.1’. A very small, bright nucleus. Three supernovas found within the last 20 years. IC 2233, “The Needle”, mag. 12.6, 08 14.0 +45 45, 4.6’ x 0.5’ in size. Located about 20’ south of NGC 2537. There are 23 more objects, all fainter.

Other Stars

Alpha Lyn, mag. 3.14, 09 21 03.46 +34 23 33.1. Sometimes called “Elvashak”, it is the only star in Lynx that has a Bayer designation.

38 Lyn. mag. 3.82, 09 18 50.67 +36 48 10.4. A visual binary star with the primary being a spectroscopic binary. 38 LynA mag. 3.8, 38 LynB mag. 3.9, 38 LynC mag. 6.6. Separation A-C is 2.7’. There is an 11th mag. fourth component at 88’ distance.

12 Lyn, mag. 4.86, 06 46 14.15 +59 26 30.1. A triple star system, B is 1.7” separation from primary and orbits it with a period of 699 years. C is separated from A by 8.7”.

A mag. 5.4, B mag. 6.0, C mag. 7.3.

19 Lyn, a binary, primary is a spectroscopic binary. 19 LynA mag. 5.80, 07 22 523.06 +55 16 53.3. 19 LynC mag. 5.80, 07 24 57.08 +51 53 14.4. Separation of A-C is 14.8”.

6Lyn, mag.2.08, 06 30 47.14 +58 09 48.4. Has one exo-planet, orbital period of 899 days.

HD 75898, mag. 8.04, 08 53 50.8 +33 03 24.5. Has one exo-planet, orbital period of 418.2 days.

Sky Happenings

March 1st New Moon occurs at 2:00 AM CST. Asteroid Ceres is stationary at 2:00PM CST. Mars is stationary at 3:00PM CST.

March 2nd Saturn is stationary at 10:00PM CST.

March 3rd The Moon passes 2° north of Uranus at 5:00 AM CST.

March 5th Asteroid Vesta is stationary at 3:00AM CST.

March 6th Jupiter is stationary at 4:00AM CST.

March 7th The waxing crescent Moon is 2° above Alderbaran in the evening sky.

March 8th First Quarter Moon occurs at 7:27AM CST.

March 9th Daylight Savings Time starts at 2:00AM LST for most of the US and Canada. Evening: Jupiter shines 5° above the Moon, and Algol is at minimum brightness for roughly two hours centered on 10:30PM CDT.

March 10th The Moon passes 5° south of Jupiter at 6:00AM CDT.

March 11th The Moon is at apogee (251,881 miles from Earth) at 2:47PM CDT.

March 14th Mercury is at greatest western elongation (28°) at 2:00AM CDT.

March 16th Full Moon occurs at 12:08PM CDT.

March 17th, 18th Spica and a much brighter Mars form a changing triangle (5° wide) with the Moon.

March 18th The Moon passes 3° south of Mars at 10:00PM CDT.

March 20th Very early morning: The Asteroid Erigone hides bright Regulus for up to 14 seconds a little after 1:00PM CDT in a narrow path from NYC area to eastern Ontario and points north.

Dawn: Binoculars show Alpha Librae just left of the Moon, with Saturn well to their left. Vernal equinox occurs at 11:57AM CDT. The Moon passes 0.2° south of Saturn at 10:00PM CDT.

March 22nd Mercury passes 1.2° south of Neptune at 7:00AM CDT. Venus appears 47° west of the Sun at 3:00PM CDT, which marks the peak of its current morning apparition.

March 23rd Last Quarter Moon occurs at 8:46PM CDT. The shadows of Io and Ganymede fall on Jupiter simultaneously from 9:08 to 9:32 PM CDT.

March 24th Asteroid Pallas is stationary at 4:00PM CDT.

March 25th Mars is 5° north of Spica in the late evening sky.

March 27th The Moon passes 4° north of Venus at 5:00AM CDT. The Moon is at perigee (227,238 miles from Earth) at 1:34PM CDT.

March 28th The Moon passes 5° north of Neptune at (:00AM CDT. A waning crescent Moon is 3° from Venus low in the dawn sky.

March 29th The Moon passes 6° north of Mercury at 12:00 midnight CDT.

March 30th New Moon occurs at 1:45PM CDT. Mars passes 5° north of Spica.

Moon – First Quarter Moon is close above Alderbaran at nightfall on March 7th. The waxing gibbous Moon passes below Jupiter on March 9th and 10th, and below Regulus on the 13th and 14th. The waning gibbous Moon rises to the upper right of Mars and Spica late in the evening on March 17th, and it rises below them on the 18th. The Moon shines quite close to Saturn when they rise around midnight on the night of March 20th. Finally, the lunar crescent hangs close to the left of Venus in a spectacular pairing at dawn on March 27th. Sun – Reaches Spring Equinox at 11:57 PM CDT on March 20th. Asteroid 2 Pallas shines at mag. 7.0 in early March, in Hydra, The Snake. On March 1st, Pallas passes 3° east of Hydra's brightest star, 2nd magnitude Alphard (Alpha Hya), and then the asteroid heads due north. On March 11th to 15th, a bright moon nearby makes locating Pallas very hard. Pallas is 325 miles in diameter, and is ranked 2nd in size to Ceres. Comet PANSTARRS (C/2012K1) – As March opens, before dawn, the comet is 1.5° southeast of 3rd magnitude Beta Herculis. Three

mornings later, it passes 0.9° due east of Beta Herculis (go 3° further east to catch the Turtle Nebula, NGC 6210). After mid-March, the comet crosses into Corona Borealis. It will lie within 1° of 5th magnitude Rho Corona Borealis on the last three days of March.

