

Newsletter of the Baton Rouge Astronomical Society

www.brastro.org

OCTOBER 2011

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NOTES FROM THE VICE PRESIDENT

Hey Everyone,

First of all, another big thank you to Dr. Brad Schaefer for giving us a great presentation last month! We were further rewarded by actually getting to SEE a supernova (SN 2011 fe in the Pinwheel Galaxy) from one of our own scopes at the HRPO. With fall here and winter approaching, we'll finally have some darkness by 8:30 and maybe we'll get more opportunities to do some observing for awhile after the meetings are concluded.

This month (**Monday, October 10th at 7PM at the HRPO**, to be exact) we are hosting another great professional from our neighboring university in Lafayette. Dr. Irit Maor received her Ph.D. in 2002 from Ben Gurion University, Israel. She also spent three years at Cambridge University, England as a Rothschild and Leverhulme fellow, and 4 years at Case Western Reserve University in Cleveland, OH as a postdoctoral scholar. She moved to Lafayette in August 2009, and is currently an assistant professor at the University of Louisiana at Lafayette in the Physics Department. Dr. Maor's main interests are cosmology and gravitation. Central themes of her research are dark energy and the cosmological constant, the subtle interplay between theory and data interpretation, as well as the consistency of scientific approaches.

The following is the title and summary of Dr. Maor's presentation for us:

"The Accelerating Universe"

Possibly the most perplexing mystery in cosmology is the present accelerated expansion of the universe. While this acceleration is strongly supported by observational evidence, our theoretical understanding of it is limited. The energy source that fuels this acceleration, dark energy, is known to constitute about 70 percent of the universe and it must have strange gravitational properties. Dark energy cannot be accounted for with any of the known particles of the standard model, making it a window to new physics: a better understanding of dark energy may provide us with hints towards a more fundamental theory of fields and particles. In this talk, Dr. Irit Maor will review the present acceleration of the universe and the challenges it poses for modern cosmology.

Needless to say, this sounds like it will be a pretty cool topic! I hope you can all make it out to help show our appreciation for our visiting speaker. As always, please feel free to bring/tell a friend, neighbor or co-worker about what we have going on out here. We are always happy to welcome new members, guests and visitors.

Thanks and I hope to see you all out there!

-Ben Toman,
BRAS VP

OUTREACH

Trevor McGuire has worked out a plan of outreach with CC's Coffee on Jefferson Highway and Best Buy on Millerville Road where we can have telescopes setup at these two locations. We may need some volunteers to operate a scope or talk to the public at these various times so if you are available and interested in having a good time, talk to Trevor or let me know and we will try to fit you in.

SIDEWALK ASTRONOMY

Come see the
wonders of the
night sky for free!



All events start at sundown

October 4th	CC's on Jefferson
November 1st	Millerville Best Buy
December 6th	CC's on Jefferson
January 31st	Millerville Best Buy
February 28th	CC's on Jefferson
March 27th	Millerville Best Buy

www.BRaastro.org

The event on October 4th had a good turnout. 35 people got to look at the moon, Jupiter and Alberio. Make sure and let all your friends, family and co-workers know to come out to the Best Buy on Millerville on November 1st to join in the fun!

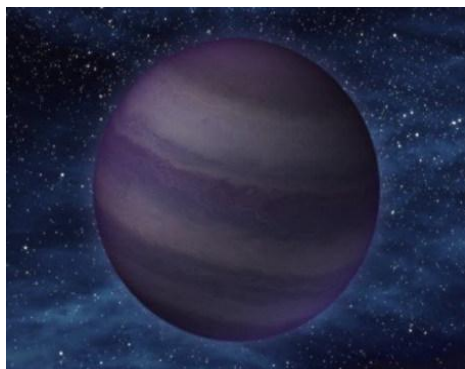
LATEST NEWS

In the past month, we have been inundated with several astronomical headlines. Since I have many friends and family members who know that I am an amateur astronomer, I have been asked by many people about some of these stories. It would be a good idea as ambassadors of astronomy that we all know the basic bullet points of each of these stories so that we can disseminate accurate information to those who ask us. So in no particular order, I have compiled the recent important information about each event.

The supernova that occurred in M101 made major headlines and augmented the attendance and phone traffic at HRPO noticeably. The highlights of the story are the following: a star went supernova (type 1a) in the galaxy M101, which is a face-on spiral galaxy in the handle of the Big Dipper. The galaxy is 21 million lightyears away, making it a relatively close supernova. It was never visible with the naked eye, but we were able to see an object that was very likely the supernova from the 16" OGS at HRPO. It has faded now to a point where only the largest telescopes would be able to see it.



The other huge story that graced the headlines recently was the uncontrolled reentry of the satellite UARS, which stands for Upper Atmosphere Research Satellite. This story made headlines because of the size of the satellite, and the unfortunate number 1/3200, which was given as the odds of a person being hit by a piece of UARS. Innumeracy runs rampant, though, and this was no exception, as the odds of an individual being hit were more in the ballpark of 1 in 21 trillion. The satellite flew over the US several times before it crashed into the Pacific ocean. I saw it fly over Louisiana at 8:30 local time from the BRAS dark spot, and it was noticeably fluctuating in brightness due to the fact that it was tumbling as was shown later. This story struck fear into many people when it shouldn't have. The important overarching idea to convey to any inquirers is that although there is a lot of space junk floating around, the atmosphere is very unforgiving to objects traveling through it at high speeds, so almost everything burns up long before it hits the ground.



Another interesting headline involves an update to astronomy textbooks. New technology has allowed astronomers to locate brown dwarfs more easily than ever before. Brown dwarfs are stars that never got big enough to fuse hydrogen, so they simply fizzled out and cooled down. The new star, WISE 1541-2250, is a mere 9 lightyears from Earth, making it the 7th closest star to us. It is likely that more will be found, but at magnitudes in the 20's, they aren't going to be visible to many amateur telescopes.

Finally, the newest article to draw attention is far more physical than astronomical, but it is still very likely that you may have to field a question about it. Recent data from the OPERA particle detector, working with CERN, seems to suggest that neutrinos travel faster than the speed of light. The important fact about this story is that particle physicists have anomalous data that they are asking the scientific community to examine for them. If confirmed, it will make physicists look closer at the nature of neutrinos, or at special relativity, to see where the new information fits in.

-Trevor McGuire

MESSAGE FROM HRPO

CALL FOR VOLUNTEERS

ON SITE

*Saturday, 22 October from 7pm to 11pm. *Two additional volunteers beyond regular compliment for the entire shift.* Assistance with Spooky Spectrum. Refreshment table, themed games. Easy; training provided.

GREAT WORLD WIDE STAR COUNT 2011

14 October to 28 October

It's that time of year again! This is an opportunity for the "citizen scientist" to gauge whether light pollution has encroached upon his or her local area. It's no big secret than Baton Rouge suffers from a hideous light dome that hinders the ability of personally-owned telescopes and binoculars to show the majesty of the night sky. The Great World Wide Star Count invites amateur astronomers to view carefully the constellation Cygnus the Swan, then match what is seen to one of eight different magnitude charts on the website. Finally, the magnitude estimate should be reported, along with latitude and longitude, via an online form. Complete instructions and a resource guide are available on the website...

(http://www.windows2universe.org/citizen_science/starcount/).

A thread has been started in the BRAS Forum for comments and questions.

LIGHT POLLUTION NOTES

Sometime before 10 October, The Special Facilities Division of BREC's Department of Recreation will be reviewing HRPO's request to adopt a policy requiring all park facility lighting to be capped or shielded. The request will then be reviewed by the Planning and Engineering Committee. I will keep BRAS informed of the request's progress.

2nd ANNUAL DONATION DRIVE RESULTS

HRPO obtained enough money to purchase eight of the nine items, but alas not the Hypnocube. Oh, well... The eight items will be premiered during the Spooky Spectrum.

BRAS OBSERVING NOTES

October / November 2011

Constellation of the Month

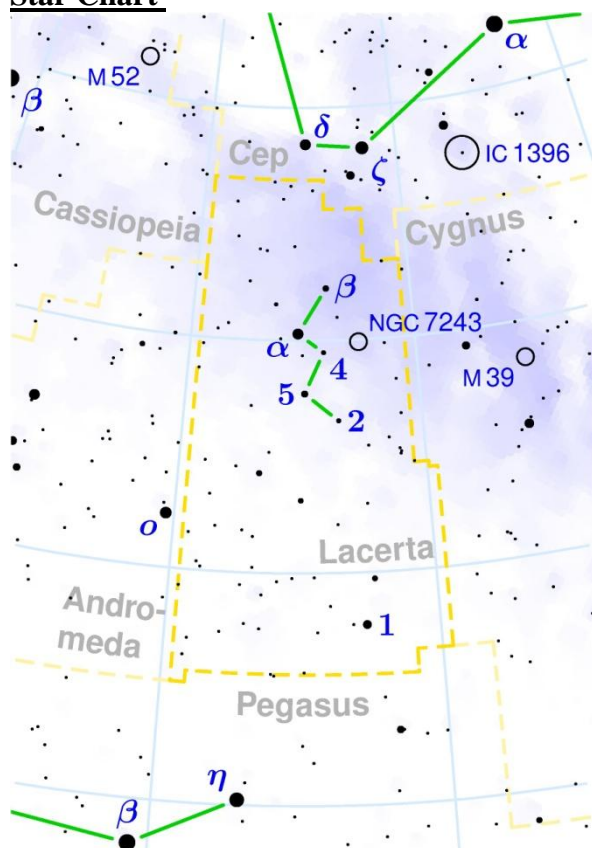
Lacerta: The Lizard

Lacerta is a shifty little constellation placed between Cygnus and Andromeda which gets its name from the Latin word for lizard. It is similar to another famous W shaped constellation and is therefore sometimes referred to as “Little Cassiopeia”. Lacerta was cataloged in 1687 by Polish astronomer Johannes Hevelius in his star atlas titled Firmamentum. Lacerta was probably not cataloged in ancient times because it is in a part of the sky mostly devoid of bright stars. Early Chinese astronomers associated the northern most stars of Lacerta to a spidery shaped constellation of 22 stars they called Tengshe.

Lacerta contains 5 primary stars and 12 stars with cataloged planets.



Star Chart



Position in the Sky

Right Ascension: 22 hrs
Declination: 45 degrees

Deep Sky Objects

NGC 7243 (Open Cluster)

Named Stars

None

October Meteor Showers: Northern Taurids

Duration: November 1 – November 25

Peak: November 12th

Radiant: Constellation Orion

Right Ascension: 4 hours

Declination: 22 degrees

Expected Rate: up to 5 per hour

Origin: Comet Encke

BRAS Dark Sky Site Viewing Dates

October 22nd and 29th

November 19th and 26th

For more information check out the BRAS website at <http://www.braastro.org>

-Art Barrios

BRAS Observing Chairman

art.barrios@cox.net

Treasurer's Report		
From Jan 1, 2011 through Sept. 30, 2011		
Beginning balance - 1/1/11		\$4,591.00
Income - 1/1/11-8/31/11		
	Dues	\$1,230.00
	Donations (raffles, etc)	\$335.00
	H.G.S.P.	\$100.00
	Calendar sales	\$220.00
	Astr. Mag club subs	\$68.00
Total income - 1/1/11 – 9/30/11		\$1,953.00
Balance before expenses		\$6,544.00
Expenses - 1/1/11-9/30/11		
	Insurance	\$334.00
	IDS Dues	\$75.00
	LIGO BBQ	\$277.00
	Guest Speaker Dinner	\$26.00
	HGSP	\$180.00
	Sec State Fee (Corp)	\$5.00
	Stamps	\$194.00
	Astr. Calendars (2012)	\$130.00
	Shelving (BRAS Room)	\$171.00
	Astr. League Dues	\$385.00
	Toner / Copy / Paper	\$204.00
Total expenses		\$1,981.00
Ending treasury balance on 9/30/11		\$4,563.00
(all figures rounded to nearest dollar)		
*Sept expenses included 15.00 for N.L copying and 62.00 for stamps		

There is a new schedule for membership dues. Starting in 2012, all memberships will be for the calendar year and will be renewed at the end of the year.

The following memberships are expiring before the end of 2011, and should be renewed by paying \$5.00 for the remaining quarter of 2011, as well as the dues for 2012. This is a total of \$25.00. Once this is paid, your membership will be paid up through the end of 2012.

Member	Expiration Date
Art Barrios	November 2011
Muralidar Chakravarthi	November 2011
Karen Cashio	July 2011
Tyler Guidry	October 2011
Hansel Harlan	November 2011
Mark Hughes	July 2011
Prasad Kalghati	September 2011
F.B. & Susan Leake	October 2011
Joseph Livingston	September 2011
Corey Luth	October 2011
Trevor McGuire	September 2011
John Murphy	November 2011
Geoff Michelli	November 2011
Michael Russo	August 2011
Brad & Martha Schaefer	November 2011
Mohammed Shafi Syed	September 2011
Luke Sheldon	November 2011
Dave Thomas	October 2011
Stephen Turri	November 2011
Ben & Ashley Toman	September 2011
Connor Walls	November 2011

-Bob Sinitiere
BRAS Treasurer

29th Annual Deep South Regional Star Gaze Registration Form
Feliciana Retreat Center – October 26th – 30th, 2011

NAME _____

ADDRESS (City) _____ (State) _____ (Zip) _____

TELEPHONE () _____ CLUB AFFIL. (if any) _____ EMAIL _____

1. Registration Fee - All attendees must register (1a or 1b) regardless of lodging choices

1a) Full Registration - \$25.00 per person / \$35.00 per family *if in advance and postmarked by 10/14/2011*.

Registrations postmarked *after* this date are **\$40.00 per person / \$60.00 per family**. Refunds will be made only if notified on or before this date or in the unlikely event of a Star Gaze cancellation. One door prize ticket per full reg.

Number attending _____ List names _____

1b) Reduced Registration - \$10.00 per person / \$15.00 per family. This applies if you do not want a door prize ticket, you are not setting up any equipment and you will not be staying overnight.

Number attending _____ List names _____

Total Registration Fee (1a OR 1b) \$ _____

2. Lodging Reservation Choices - Select desired lodging type (2a, 2b or 2c) if staying onsite

2a) Cottage Reservations

	Rate		# of people		Amount Due
Wednesday (10/26)	\$21.00 per person	X	_____	=	_____
Thursday (10/27)	\$21.00 per person	X	_____	=	_____
Friday (10/28)	\$21.00 per person	X	_____	=	_____
Saturday (10/29)	\$21.00 per person	X	_____	=	_____

Cottage Reservations Total \$ _____

2b) Tent, Camper & RV Reservations – Limited electrical hookup is for telescopes only, and there are no sanitary hookups for campers nor RVs. Generator use is not permitted on the observing field at night. Picnic canopies are permitted on the observing field in compliance with our Light and Parking Rules.

	Rate		# of people		Amount Due
Wednesday (10/26)	\$5.00 per person	X	_____	=	_____
Thursday (10/27)	\$5.00 per person	X	_____	=	_____
Friday (10/28)	\$5.00 per person	X	_____	=	_____
Saturday (10/29)	\$5.00 per person	X	_____	=	_____

Tent, Camper or RV Reservations Total \$ _____

2c) Lodge Reservations – The Lodge has 24 motel style rooms (*two of the rooms have queen beds*). The other rooms have 1 twin bed & 1 twin bunk bed. All have a private bathroom with a shower. Linens and towels are provided. Queen rooms are only upon request, first come, first serve (*check here ____ to request a queen*).

	Rate		Number of rooms		Amount Due
Wednesday (10/26)	\$47.00 (<i>single</i>) OR \$72.00 (<i>double</i>)	X	_____	=	_____
Thursday (10/27)	\$47.00 (<i>single</i>) OR \$72.00 (<i>double</i>)	X	_____	=	_____
Friday (10/28)	\$47.00 (<i>single</i>) OR \$72.00 (<i>double</i>)	X	_____	=	_____
Saturday (10/29)	\$47.00 (<i>single</i>) OR \$72.00 (<i>double</i>)	X	_____	=	_____

Lodge Reservations Total \$ _____

3. Meal Reservations – To eat in the FRC dining hall, you **must** reserve all meals here in advance

Meals are breakfast (\$7) at 10 a.m. and dinner (\$10) at 4 p.m. on the days shown below. Sunday breakfast will be held one hour earlier at 9 a.m.

Note - Meals have to be paid in advance, so there will be no on-site meal payment.

Please indicate the number of meals you want –

Wednesday (10/26)				Dinner \$10 X _____ = \$ _____
Thursday (10/27)	Breakfast \$7 X _____ = \$ _____			Dinner \$10 X _____ = \$ _____
Friday (10/28)	Breakfast \$7 X _____ = \$ _____			Dinner \$10 X _____ = \$ _____
Saturday (10/29)	Breakfast \$7 X _____ = \$ _____			Dinner \$10 X _____ = \$ _____
Sunday (10/30)	Breakfast \$7 X _____ = \$ _____			

All Meals Total \$ _____

Grand Total

Total of sections 1, 2 and 3 **TOTAL REMITTED** \$ _____

All checks (*only, no cash nor money orders*) should be made payable to “**Deep South Regional Star Gaze**” (or “**DSRSG**”) and mailed to:

Barry Simon, DSRSG Co-Director
842 Crystal Street
New Orleans, LA 70124

Email me at bsimon615@aol.com if you have any questions. For registration verification, please send a self-addressed stamped envelope or include an email address at the top of this form. Please note if you will need a receipt.

Deep South Regional Star Gaze 2011 RELEASE OF LIABILITY

I, _____, of _____
(print name) (city and state)

in consideration of my registration being accepted for the 2011 Deep South Regional Star Gaze ("DSRSG"), hereby irrevocably covenant, promise and agree to relieve, release and hold harmless the Deep South Regional Star Gaze, its organizers, and workers from any and all losses, claims, expenses, law suits, costs, demands, damages or liabilities, whether joint or several or of whatever kind or nature related, or from any injuries and / or losses, up to and including accidental death, which may occur to the undersigned registrant or his family, or any third person or party for whom the undersigned may be legally responsible while attending the 2011 Deep South Regional Star Gaze.

I further agree to indemnify any party indicated above should such party suffer any claims, liabilities, losses, demands, causes of action, law suits and expenses (including attorney fees), caused directly or indirectly by my negligent or intentional acts, or failure to act, or if such acts or failures to act are directly or indirectly caused by any person in my family while participating in the Deep South Regional Star Gaze.

It is understood that the Deep South Regional Star Gaze is held at the Feliciana Retreat Center located near Norwood, Louisiana. It is understood that the above named event commences at 10 a.m. on Wednesday, October 26th and runs until 12 Noon on Sunday, October 30th, 2011. As this is a rural area with a number of events held out of doors and in and around motor vehicles and in the presence of large numbers of other participants, certain dangers and perils are understood and accepted by me in registering for and attending this event.. SPECIFICALLY I HOLD HARMLESS THE DEEP SOUTH REGIONAL STAR GAZE, IT'S ORGANIZER(S), THE FELICIANA RETREAT CENTER AND ANY OTHER REGISTRANTS WHO MAY VOLUNTEER THEIR TIME AND EFFORTS WITH THE FUNCTION.

I hereby waive any and all claims against the DEEP SOUTH REGIONAL STAR GAZE, IT'S ORGANIZERS, THE FELICIANA RETREAT CENTER AND ANY OTHER REGISTRANTS WHO MAY VOLUNTEER THEIR TIME AND EFFORTS DURING THE COURSE OF THIS FUNCTION for injury, death or personal property damage or theft in excess of my personal insurance coverage, except in matters of gross neglect or criminal action by either the Deep South Regional Star Gaze, the Feliciana Retreat Center, it's organizer and volunteers. In any incident involving other registrants outside of the actual management of the Deep South Regional Star Gaze, those registrants will be directly responsible for and shall be held accountable for their actions.

My signature on this form also indicates agreement and acceptance on behalf of all minor children (under 18 years of age) under my care in attendance.

_____ (initial here) I have received a copy of the DSRSG Light and Parking Rules, in force during the Deep South Regional Star Gaze and will abide by them.

*Name _____ Signature _____ Date _____
(Please Print)

* **Note - A separate Release of Liability form must be completed by each attending member of your family, age 18 and over.**

Additional Names of Registrants in your party _____ (age) _____
_____ (age) _____
_____ (age) _____
_____ (age) _____
_____ (age) _____
_____ (age) _____
_____ (age) _____

Note - Registration is not complete until this form is completed and submitted with the Registration Form.

WHAT YOU SHOULD BRING TO YOUR FIRST STAR PARTY

(revised 10/7/2011)

Will this be your first star party?

For many it will not be, but for some this year's Deep South Regional Stargaze will be their first bona fide star party beyond the typical weekend gathering at a club observing site or observatory. Many that attend the Deep South Regional Star Gaze attended their first real star party on the observing field at Percy Quin State Park, Camp Ruth Lee or even here more recently at Feliciana Retreat Center. Whether it's the DSRSG, the Texas Star Party, Mid-South Star Gaze, Okie-Tex, etc., etc., all have very many similarities and there are some helpful hints that you should follow to make your stay comfortable, whether it be for just a few short hours or the entire event.

Here are some general suggestions, modify as necessary:

1) Watch the weather.

Beginning about 10 days out, start looking at the long term forecasts for the Clinton, Louisiana area. However do not concern yourself too much with what the forecast may be until about 4 days out. At about 2 days out you can pretty much count on the forecast being fairly accurate for at least the first day or two of your attendance. The weather forecast will have a bearing on what equipment (*telescopes*) you bring and what else you need to support your observing plans. For months before the DSRSG (*or any other star party*) some folks begin formulating a plan. That plan may very well change pretty dramatically depending upon the last few forecasts before leaving for the DSRSG. A general rule of thumb is that weather forecasts lose about 20% accuracy for each 24 hours "down the road".

Some popular weather websites are AccuWeather (www.accuweather.com), Weather Underground (www.wunderground.com), The Weather Channel (www.weather.com) and the National Weather Service (www.weather.gov).

2) Put together a pack list.

This should include everything ranging from clothing, bedding and bathroom needs, to astronomical equipment, tools, canopy, bicycle, and cash. Your packing list should be separated into logical sections. Put one together now and it will help you tremendously. Plus, at various times over the next few weeks you will say "Oh yeah, can't forget that, got to add it to the list!" Over the years, this list will become tailored to your star party methodology and will help tremendously in terms of bringing what you need and leaving what you don't need.

Tip – Always bring at least a pair of binoculars, even if you don't regularly observe with binocs. There may well be instances (*particularly if the weather is less than perfect*) when you'll have time to grab a few looks through them, but wouldn't have time to uncover / setup your full size scope.

3) Make a plan.

Develop a plan if you want to do some serious observing such as working on a Messier or double star list. Come prepared, but have a Plan B in case the weather does not cooperate fully. Please note that not one DSRSG so far has been totally done in by the weather (*although a couple have come close!*). Some were only one or two nights but the weather was OK. 1986 was two nights with the first night being good and the

second night foggy, with most leaving early that evening. The fog later cleared and anyone still there after 10 PM had a great night. The worst was probably either 1999 (*when we had a few hours of decent observing early on Wednesday evening, but had bad weather from that point forward*) or 2006 (*when there was only a brief period one night when it was even semi-clear but VERY damp*). Both were October events, although there have been many other excellent October DSRSGs. Statistically you can pretty much expect some good weather, but it is also a possibility that at least one night will not be good. Bottom Line? Be Prepared! We will have DVDs and will repeat some programs in the event of bad weather at night, but it is best to have a fallback plan beyond simply observing every night.

4) Be well-dressed!

Be overprepared in the way of clothing. We have had temperatures down in the 20's and we have seen temperatures in the mid-90's. Weather is always a variable, so cool nighttime temperatures (*down into the 30s*) are a possibility. Just the same, although it's autumn, it *can* still get warm during the day and a high of nearly 80 is not out of the question. Once again, Be Prepared!

5) Personal protection

No – We're not talking about that! Bring sunscreen and bug repellent. You may forget to use the sunscreen and you may not need the repellent, but this stuff is good to have.

6) Be comfortable

Other necessities include a nice chair or lounge something to provide shade such as a canopy, a well stocked ice chest, a pair of sunglasses and a red light to maneuver around with at night (*no white light!*).

7) Sell...

If you have something you want to sell, bring it! Preferably it should be at least marginally related to astronomy, but that can cover a multitude of items. Others will be bringing their treasures to sell and will be looking for new treasures to buy.

8) ...and buy!

Oh, and you might want to bring some cash!



BATON ROUGE ASTRONOMICAL SOCIETY

MEMBERSHIP APPLICATION



You can pay your membership dues at our next meeting or send your dues to:

Baton Rouge Astronomical Society, Inc.
c/o Bob Sinitiere, Treasurer
14558 Cottinham Ct.
Baton Rouge, LA 70817-3543

If you have questions about dues or receiving your newsletter, call Bob at (225) 755-2079 or send an email to bobstar9@bellsouth.net

Regular Membership	\$20.00	\$ _____
Each Additional Family Member	\$5.00	\$ _____
Student Membership (through age 17)	\$10.00	\$ _____
Donation* toward club building fund or (specify)		\$ _____

TOTAL ENCLOSED		\$ _____

Date _____
Name _____
Address _____

Phone Home _____
Cell _____
Work _____
Email _____

The Society's newsletter Night Visions is sent via email.

If you prefer to receive the newsletter via mail, please check this box ☐

PLEASE CHECK THAT YOUR ADDRESS AND E-MAIL ARE CURRENT AND CORRECT

Meetings are usually held the second Monday of each month at 7PM, except for June and July. Most meetings are held at the Highland Road Park Observatory

* All donations to the Baton Rouge Astronomical Society, Inc. are tax-deductible under IRS section 501(c)(3) & (a)(1) and also 170(b)(1)(A)(vi).

The Baton Rouge Astronomical Society, Inc. is a nonprofit corporation chartered under the laws of the State of Louisiana