

Newsletter of the Baton Rouge Astronomical Society

**April 2011**

The next meeting of the Baton Rouge Astronomical Society will be April 11. We will meet at the Highland Road Observatory. The meeting will start at 7:00 p.m. Please arrive a few minutes early.

**Program: *Planetary Acoustics - Sounds of the Planets***

Hey Everyone,

I hope everyone that made it out to the last meeting had as good a time with John Filostrat as I did. The Michoud Assembly Facility certainly has a lot of potential. John told us that we are more than welcome to bring a group down there for a nice tour of the facility. That may be a fun summer outing.

I'm excited about our guest speaker for this month. He is Dr. Andi Petculescu of the University of Louisiana Lafayette's Physics department. Dr. Petculescu specializes in experimental acoustics and does a lot of work with planetary acoustics. Imagine people setting foot on Mars for the first time. We have a pretty good idea of what they would be seeing, but what would they hear? There are several celestial bodies in our Solar System that have atmospheres that allow sound to travel. Titan, Mars, Venus...just to name a few. Dr. Petculescu's work includes creating simulations of what human speech would sound like in some of these different atmospheres, and even a Bach Toccata and Fugue. He has been spearheading proposals to NASA to include more sound capturing / measuring devices on the various landers that have been (and ARE being) developed. I hope you will all join us to come hear what promises to be one of the more unique presentations we've had at one of our meetings.

We also may get to hear a bit about this year's Hodges Gardens Star Party which happened March 30th - April 3rd. We had several club members in attendance this year, and if you were one of them, please come and share some of your experiences with the rest of us. So, come on out to this month's meeting! It would be great to see you and nice to have a good size audience for our guest. As always, don't hesitate to tell a friend or neighbor.

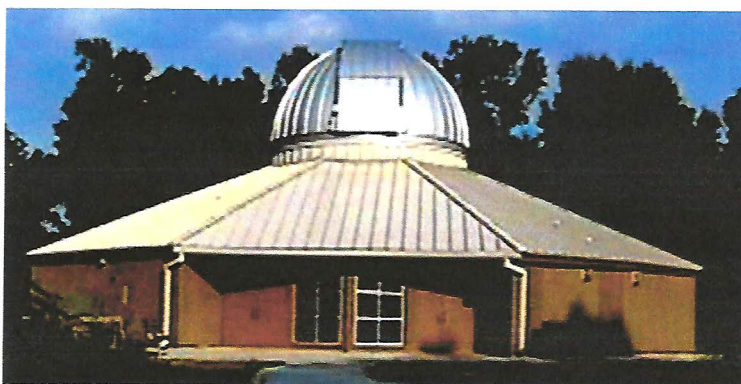
Thanks and see you soon!

Ben, VP, Programs

Ben Toman <tomanben@gmail.com>

***1981 - 2011***





## MESSAGE FROM HRPO

Or should I say, “message from HGSP” because that’s still where my mind is. It was awesome! Wednesday evening was spotty at best, with haze seemingly developing right above our heads (although I was able to sketch Leo Minor, Leo and Ursa Major). Thursday evening started the same way, but from 3am to sunrise the clouds disappeared and the seeing and transparency improved greatly. It was a treat to see the summer constellations in their full glory—Böotes, Hercules and the like. Even the “C” of Corona Borealis was quite distinct. Ben Toman, Trevor McGuire and I (mostly Ben and Trevor) accomplished a lot in our continued pursuit of various AL certificates. Steve Edmiston kindly allowed us to view Omega Centauri through his 18” Dob. Barrow Leake impressed everyone with his array of observing equipment. I sincerely hope anyone who could not make it this year try to be a part of the Hodges Gardens experience in 2012. If I’m not mistaken, Don Weinell already has the date set. Thanks to him for his unerring management of this star party. Thanks to Kim Kelly for being our helpful point person on the staff up there.

## CALL FOR VOLUNTEERS

### ON SITE

**Evening Sky Viewing:** Saturday, 9 April from 6pm to 10pm. *One or two volunteers.* To staff marshmallow roast, work simple 6” Dob, demonstrate air cannon, gyroscope, etc. All needed training given.

**International Astronomy Day:** Saturday, 7 May from 3pm to 10pm. *Ten to twelve volunteers for three- to six-hour shifts.* Any number of activities; contact me as soon as you can. All needed training given. NOTE: This is the largest and most successful HRPO event of the year. Last year we received over 700 visitors and on 7 May 2011 we expect at least 1000. We really do need all the help we can get, so don’t be shy about volunteering!

### OUTREACH

**Earth Day:** Sunday, 17 April from 12pm to 8:30pm. *Two or three volunteers for three- to four-hour shifts.* Hydrogen-alpha telescope and demos.

Christopher

# HRPO

## Calendar of Events

### Evening Sky Viewing

Fridays from 8:30-10 p.m. and Saturdays from 7:30-10 p.m.; free and for all ages.

### April 9: 4th Dimension Display and a marshmallow roast

### Lecture Series

Fridays at 7:30 p.m.; free and for ages 14 and older



**April 8: "An Introduction to the Sun"** All human life depends upon our parent star, and yet we take it for granted. How did the Sun come to be? How have cultures looked upon it throughout the centuries? What have spacecraft like SOHO and STEREO taught us about the Sun? What can we expect during this current rise in solar activity?

**April 15: "Wonders of the Spring Sky"** This is the first talk for HRPO Program Aide Cody Arceneaux, a recent graduate from LSU's Department of Physics and Astronomy. He takes the audience on a fascinating tour of Baton Rouge's spring season. He highlights the celestial gems that will sparkle throughout the next three months-gems that visitors will be able to see live if they continue to visit HRPO!

**April 22: "Dating the Crucifixion"** It is one of the most profound events to influence Western history. Can ancient texts and the motions of the universe help pinpoint the actual date? For the sixth consecutive year, LSU physics professor Brad Schaefer returns for Good Friday and leads the audience step-by-step through the investigation.

### Solar Viewing

April 9 and 23 from noon to 1 p.m.; free

The observatory recommends visitors wear protective clothing and sunscreen. The observatory provides handouts and information about UV radiation and solar power.

### Baton Rouge Astronomical Society Meeting

April 11 from 7-9 p.m.; free *"Experimental Acoustics," by Andi Petculescu*

Celebrating its 30th anniversary, BRAS has educated countless numbers of citizens in the joys of planetary and deep-sky gazing, the perils of light pollution and factors to consider when buying a pair of binoculars or a telescope. BRAS members have published in "Astronomy", "Sky & Telescope" and "Scientific American".

### Launch: Space Shuttle Endeavour

April 19 from 6-7 p.m.; free and for all ages

Don't miss history! The second-to-last planned shuttle launch is slated for 6:48pm CDT. The Space Shuttle will deliver the Express Logistics Carrier-3 and the Alpha Magnetic Spectrometer to the International Space Station. Refreshments and handouts will be on hand.

### International Astronomy Day

May 7 from 3-11 p.m.; free admission and for all ages

This is HRPO's fifth consecutive year hosting this fantastic worldwide event-and this one will be bigger and better than ever. Within the next seven days a front page link will be up at the HRPO site. It will contain a complete schedule of all sessions, celestial objects to be viewed, exhibitors, raffle items and merchandise, foodstuffs and rides (the legendary GyroXtreme will be offered for anyone who dares to climb inside). Check back often for regular updates!





# Tips for Observing in Light Polluted Area

Sometimes it can be difficult observing in heavily light polluted skies. But by following a few procedures, your observing session can be more enjoyable and more rewarding. The following are tips that our crack team of observers offered to help increase your satisfaction in observing in light polluted areas.

- Observe during new moon. Just like observing in dark skies, the moon adds light to the night sky and reduces contrast.
- Observe after 11:00 p.m., Many stores have closed by this time, and because they turn off their lights, a city's light glow is reduced considerably.
- Observe after 1:00 a.m. After the stores have closed, most shoppers and workers have gone home which means that there is a lot less traffic on the streets and freeways, and light pollution is reduced.
- Ask your neighbors over for an observing session. After seeing the effect of light pollution on observing, they will be more cooperative in turning off their lights for you.
- Try to catch your target objects straight overhead. This is always the darkest part of the sky.
- Select the right objects to observe. Magnitude is not everything. A bright galaxy may be invisible, whereas a dim planetary may be easily seen. Small, high surface brightness and stellar objects are easier to observe than large, diffuse objects.
- If you have an altazimuth mount (Dobsonian), try to observe near the meridian. Up-down, left-right motions translate into north-south, east-west motions and makes following a path on a star chart easier.
- Observe after 10:00 P.M.. This gives the dust and water in the air a chance to settle. Dust and water reflect light that can turn a good night into a bad one.
- Pay close attention to the weather. Cool, dry nights are best at any location, but are more pronounced in the city.
- Learn to read the quality of the sky by the observing of stars with the naked eye. A clear night might seem perfect for observing, but may in fact be bad for viewing if the seeing is not good.
- Observe after a rain storm. The skies appear darker as light is no longer reflected off of dust particles in the air.
- Observe after a cold front has come through. The air is more stable and the air pollution has been blown out.
- Use a dark cloth to cover your head and eyepiece to shield them from stray light.
- Use a dew shield on your telescope to shade it from stray light.
- Clean and collimate all optics. Dirty optics scatter light.
- Light pollution and O-III filters are good for planetary and emission nebulae.
- Use a pirate's eyepatch to keep out stray light.
- Pick the darkest section of your site and make an extra effort to block out stray light. Using a light baffle made of a tarp and tent pegs help, as well as a three-sided wall made out of cardboard. Try to make the immediate area around your site as darkened and non-reflective as possible. Use existing structures and foliage to block the direct view of lights.
- A right-angle finder with amici prism under a dark cloth is helpful for finding objects.
- Setting circles are a great aid for finding difficult objects, especially when those objects are quite some distance from a naked eye star.
- A good star atlas, a pair of binoculars, and a one power finder (e.g., Telrad) with a template for that finder, are important for finding objects in bright, low contrast skies. Telrad-hopping can sometimes be easier and just as useful as star-hopping with a finder. Viewing the sky through your Telrad with binoculars is also a nice trick.
- Use earphones or a radio to mask neighborhood noise. Noise can be very distracting.

Finally, attitude is very important. Any observing is better than no observing or TV.

**Compiled by** Ken E. Boquis, Bill Geertsen, David Hasenauer, Lee Maisler, Chris Randall, Roberto Torres, John Wagoner



# BRAS Observing Notes

## April / May 2011

### Constellation of the Month **Leo Minor: The Little Lion**

Last month we talked about the smaller companion of Canis Major. This time we will take a look at the little friend of Leo the Lion, namely Leo Minor. You can find this faint lion cub by looking just above and a bit to the left of the head of Leo.

The constellation Leo Minor was created by Johannes Hevelius in 1687. He must have felt that the dim stars between Ursa Major and Leo deserved their own character in the sky. Through a minor, (no pun intended), slip up the constellation's brightest star does not have the designation "alpha" like most other constellations. Hevelius did not give any of the stars of his new constellation designations. The stars were not named by Hevelius but actually by British astronomer Francis Baily in 1845. For unknown reasons he gave the second brightest star the designation "beta" but gave no designation to the brightest star. It eventually received the unflattering numeric designation 46.

We can thank a Dutch school teacher and amateur astronomer named of Hanny van Arkel for helping spice up Leo Minor. In 2007 he discovered a strange object of unknown nature there which has been called Hanny's Voorwerp. This object is about the size of the Milky Way Galaxy but instead of a central budge of stars it has a huge central void that is 16,000 light years across. Star formation has been detected in the rim of the object as well as the emission lines of oxygen. Some theories state that a transient quasar or super massive black hole may have played a part in creating this strange object.

#### Star Chart

##### Position in the Sky

Right Ascension: 10 hrs  
Declination: 35 degrees

##### Named Stars

None

##### May Meteor Showers: Eta Aquarids

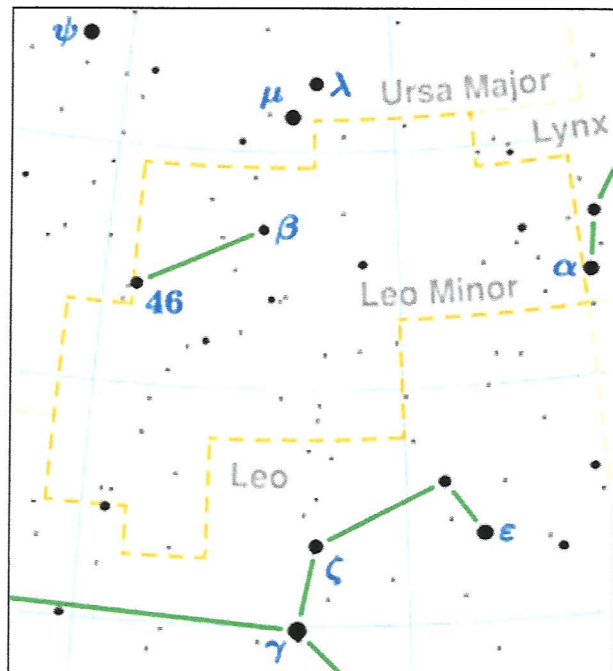
Duration: April 19 – May 28  
Peak: May 6<sup>th</sup>  
Radiant: Constellation Aquarius  
Right Ascension: 23 hours  
Declination: -15 degrees  
Expected Rate: 60 per hour  
Origin: Halley's Comet

##### BRAS Dark Sky Site Viewing Dates

30<sup>th</sup> 2011

May 7<sup>th</sup> and 28<sup>th</sup> 2011

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



Art Barrios  
BRAS Observing Chairman  
[art.barrios@cox.net](mailto:art.barrios@cox.net)

# Mid-South Star Gaze April 27-30, 2011

The Mid-South Star Gaze is an annual amateur astronomers conference and star party held at Rainwater Observatory in French Camp.

## 2011 PROGRAM SCHEDULE

*Subject to change...*

### Wednesday: April 27

6:15 pm Talk: Impact: Solar System Encounters, Edwin Faughn

### Thursday: April 28

8:00 am: Sweet rolls and OJ in the classroom

1:30 pm: Talk: Planetary Imaging, Dan Llewellyn & Rich Jakiel (DSLR/CCD Basics)

4:00 pm: Talk: Stellar Nucleosynthesis, Dr. Shadow Robinson

5:15 pm: Supper at the Lodge

6:15 pm: Talk: Wonders of the Zooniverse, Dr. Bill Keel

Sunset Until: Observing

### Friday: April 29

8:00 am: Sweet rolls and OJ in the classroom

12:00 pm: Lunch at the

Lodge

Afternoon: Solar Observing, Hanging out, Sightseeing

1:30 pm: Talk: Planetary Imaging, Dan Llewellyn (Part II, Advanced Techniques)

4:00pm:TBA,

5:15 pm

Supper at the Lodge

6:15 pm: Talk: TBA, Dr. Chris Sirola,

8:00 pm: Sky Lore, Part I, Dave Teske at the Amphitheater

Sunset Until: Observing

### Saturday: April 30

8:00am: Breakfast at the Lodge

9 am-Noon: Hands-On Astronomy Activities Workshop, John Frassinelli

12:00 Lunch at the

Lodge

Afternoon: Solar Observing, Hanging out, Sightseeing

1:30 pm: Meeting: Friends of Rainwater and Promoting Astronomy Education

4:00 pm: Talk: Jocelyn Bell & the Discovery of Pulsars, Joan Schmelz

5:15 pm: Supper at the Lodge

6:15 pm: Talk: Astronomy in the Far North & South, the VLBI, Gerrit Verschuur

8:00 pm: Sky Lore Part II, Jim Hill at the Amphitheater

Every afternoon or evening there will be a "Plan B" in the event of rain or clouds.

## Mid-South Star Gaze 2011 Registration Information

### Star Gaze Registration Fee: \$20.00

This includes all observing sessions and the talks Wednesday, Thursday, Friday, and Saturday.

**Lodging:** Lodging is available on a first come, first served basis.

- Cabins at the Lake: There are 16 of these cabins which will sleep up to 14 people each. These cost \$25.00 per cabin per night. These cabins share a common shower house (with sides for men and women). Bring your own bedding. Lights and electricity, but no heat. Clubs may wish to reserve a cabin for their members to stay together. Indicate this on the registration form. One or more cabins will be reserved for ladies only. Indicate "ladies only cabin" on your registration form.
- RVs and tent campers: There are showers, electricity, and toilet facilities available at the observatory. Showers are also available at the lake. \$5 per person per night.
- Bunk Room: There are 14 beds in an upstairs room above the shower room. Bring your own bedding. \$5 per person per night.
- Hall Lodge: Four motel type rooms at the lake, two miles from the observatory. \$40.00 for one or two people per night. Connecting baths. The same building where meals are served.
- Memphis Guest House: 8 motel type rooms with queen sized bed and two single bunk beds. This site is also near the lake, two miles from the observatory, but near meals. \$60.00 per night for 2 to 4.
- Bed & Breakfast Inn: Restored log cabin lodges. Includes breakfast. 1 mile from observatory. Room rates vary, per night for 1 or more people. The B&B is in the historical area at the Natchez Trace. **You must make your own reservations - (662) 547-6835.** 6 rooms or cabins are available.

**Other Lodging:** Off-site lodging is available at the following places near by.  
**You must make your own reservations.**

- Jeff Busby Campground: Located 10 miles north on the Natchez Trace Pkwy. National Park Service campground and scenic area. Free - first come, first serve. No reservations needed.
- Candlewick Bed & Breakfast: Located 15 miles east in Ackerman. (662) 285-4466.
- Peeler House Bed & Breakfast: Located 20 miles south in Kosciusko. (662) 289-5086.
- Super 8 of Kosciusko Located 20 miles south at Kosciusko (MS 35, 1/2 mile north of Trace). (800) 800-8000.
- Best Western - Trace Inn: Located 20 miles south at Kosciusko (MS 35 & Trace). (662) 289-6252.
- Day's Inn of Kosciusko: Located 20 miles south at Kosciusko (MS 35 & Trace). (662) 289-2271.
- Western Inns & Suites of Winona: Located 30 miles northwest at Winona (US 82 & I-55). (662) 283-3900.
- Magnolia Lodge of Winona: Located behind Western Inns. (662) 283-3338
- Best Western: Red Hills Inn, 30 miles south east on hwy 15 bypass in Louisville, (662) 773-9090



## Mid-South Star Gaze 2011 Registration Information

### Meals:

We are planning six group meals:

- Breakfast: Saturday\* at Lodge, \$6.00 per person.
- Lunches: Fri. & Sat., at Lodge, \$8.00 per person.
- Suppers: Thurs.\*, Fri. & Sat., at Lodge, \$10.00 per person.

**The deadline for reserving meals is April 10, 2011.** \* We must have 30 people sign-up in order to have these meals.

Other places in French Camp where you can get a meal or snack:

- Council House Cafe, in the historical area, open 10 am 'till 7:00pm, Mon. - Sat.
- Leonard's 3-Way Quick Stop, MS 413 & MS 407 (Across the Trace).
- Pap's, Downtown Ackerman (15 miles from French Camp).
- Weir Country Cafe, Weir, across from the Sunflower Grocery
- Home Plate, 5 miles east on MS Hwy 413

### Other Activities:

- Canoeing (for \$1.00 per person per day) and hiking at the lake is available.
- The French Camp Visitors Center and Historical Area on the Trace with sorghum mill, local crafts, log cabins, and the antebellum Drane Home.
- Additional talks will be scheduled in the case of cloudy weather.

**Please Note:** As at all star parties, please be courteous to your neighbors. **Don't** use a telescope unless its owner is there and invites you. **All flashlights** should be covered with red tape or tissue paper. (A supply will be available.) **No car lights should be used after dark in the observing area.** After dark, please leave the observing area with your car only during specified windows, and wait until past the trees to turn on your headlights. Please stop at the Planetarium to register as soon as you arrive.

**Facility Policy:** **No smoking** is permitted in the buildings and **no alcohol or drugs** are allowed at the observatory or at any of French Camp Academy's facilities, which includes the cabins, Guest House, and Lodge.

**Cancellation:** Please contact up A.S.A.P. if you will be unable to attend. **The deadline for refunds is April 10, 2011**

### For More Information:

Contact:

James G. Hill, Director

Rainwater Observatory & Planetarium

French Camp, MS 39745

(662) 547-6377 (observatory), or 547-6970 (home)

E-Mail: [info@rainwaterobservatory.org](mailto:info@rainwaterobservatory.org)

Web Site: <http://www.rainwaterobservatory.org>

Emergency: Emergency phone messages during Star Gaze may be left at (662) 547-6377.

# BATON ROUGE ASTRONOMICAL SOCIETY

You can pay your Membership Dues at our next Meeting or  
Send your Dues to:

*Baton Rouge Astronomical Society, inc.  
c/o Bob Sinitiere, Treasure,  
14558 Cottinham Ct.,  
Baton Rouge, LA 70817-3543*

If you have questions about dues or receiving your News Letter call Bob  
at 755-2079

<p>◆ Regular Membership    \$20.00    \$ _____</p> <p>◆ Each Additional Family Membership    \$ 5.00    \$ _____</p> <p>◆ Student Membership    \$10.00    \$ _____ ( through age 17)</p> <p>◆ Donation* toward club building fund or ( _____ )    \$ _____ <i>Specify</i></p> <p><b>TOTAL ENCLOSED</b>    \$ _____</p>	<p>Date _____</p> <p>Name _____</p> <p>Mailing Address _____ _____ _____ Zip _____</p> <p>Phone (H) _____ (C) _____ (W) _____</p> <p>E-Mail _____</p>
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How do you wish to receive the Society's Newsletter *Night Visions*-

\_\_\_ By Mail or by \_\_\_ E-Mail

(Please Check one)

**PLEASE CHECK THAT YOUR ADDRESS AND E-MAIL ARE CURRENT AND CURRENT.**

*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 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).

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