

Newsletter of the Baton Rouge Astronomical Society

**March 2011**

**The Next Meeting of the  
Baton Rouge Astronomical Society  
will be March 14, 2011  
at 7 PM.**

We will be meeting at the Highland Road Observatory. The meeting starts at 7 PM. Please arrive a few minutes earlier .

**PROGRAM NOTES: The Future of the Michoud Facility -  
Post Space Shuttle**

This month's meeting we will be hosting John Filostrat of Jacobs Technology, Inc., which is the Advanced Technology arm of Jacobs Engineering. For those of you that don't know, they were some of the folks working on the Constellation project at NASA's Michoud facility near New Orleans. They have been involved with NASA since the Mercury Project days and their list of clients also includes the DOD, U.S. Special Operations Command, Boeing, Lockheed Martin and many others. Mr. Filostrat will be letting us know what's going on at the Michoud facility in light of the recent setbacks regarding the Constellation Program. *(VP message continued on page 2 )*

Thanks,  
Ben, VP, Programs  
Ben Toman <tomanben@gmail.com>

**Baton Rouge Astronomical Society  
Thirty Years and Still Growing!**



## Message From the Vice President

Hey Everyone,

First of all, thank you again to Dr. Brad Schaefer for stepping in at the last minute to fill our program for last month's meeting. I know I learned a lot about extinction as it applies to astronomical observation and we even capped it off by heading outside and putting our knowledge to work by interpreting the magnitude of Epsilon Auriga. With that one little observation, we then had the opportunity (later on at home) to report our individual observation to the AAVSO (American Association of Variable Star Observers) and actually help out (in a small way) with astronomical research.

Also, a quick congratulations to Joe Longuepee for his entry into the Astronomical League's Messier Club and Christopher Kersey for his entry into the Lunar Club. Joe has now achieved that eternal fame of having his name printed in an issue of Reflector this month and Christopher's should be in the next issue. Great job, guys!

The weather's warming up and Hodges Gardens Star Party is just around the corner now. (Check out our website, [brastro.org](http://brastro.org), for more info on that!) This is a great time to start dusting off the scopes and start tackling some observations before mosquito season gets here! If you have a decent sky at your house, don't be afraid to invite your neighbors over to take a peek through your scope. And in the mean time, invite them and your friends to our next meeting, of course! We've been having pretty good attendance, but it can always be better.

Hope to see you there!

Ben Toman

BRAS VP

## Rockefeller Road Trip and Hodges Gardens State Park

Our annual Rockefeller Road Trip took place this year on the last weekend of January. Approximately 12-15 BRAS members and friends got together for a night of stargazing a day of birding, shell collecting, and general sightseeing along the coast of southwest Louisiana. The skies were clear and unseasonably warm on Friday night. A beautiful dark sky to the south of our location was enjoyed. To the north, however, the skies are somewhat obstructed by buildings and trees. Saturday was clear but breezy. A larger number of Roseate Spoonbills were seen in the marsh this year. Other species of waterfowl, though, seemed to be fewer. As far as I know, no alligators were seen. Crabs were also sparse, but luckily plenty of other good food was shared by all. Clouds rolled in during Saturday afternoon, so the telescopes remained covered Saturday night. Sunday morning began with a light mist, but by the time most of us were on the road back to Baton Rouge, heavy rain set in. All in all, it was an enjoyable weekend and one that we continue to look forward to each January.

Coming up in a few short weeks will be the 3rd Annual Hodges Gardens Star Party. The event begins on Wednesday, March 30th, and continues to Sunday, April 3rd. Google our website for all the specifics. Because of Mardi Gras falling so close to the new moon weekend of March, we decided to back the event up a few weeks this year. So, temperatures should be a little warmer than in the past. The famous gardens will also be in full bloom. Bring your cameras as well as your telescopes. We've decided to schedule a "swap meet" on Saturday afternoon, so if you have any "treasures" you want to sell or trade, be sure to pack them along.

Don Weinell

[kisatchie@cox.net](mailto:kisatchie@cox.net)

## MESSAGE FROM HRPO

Well, BREC's CIP department has come through. The fresh copper contacts should be installed by this time next month. During installation, CIP personnel will take a look at the current dropout motor situation.

Wally, Tom and I are looking at the main floor and initiating some shifting of furniture and material in order to maximize space. I'm sure BRAS will be please with the result.

I'm attempting to obtain copies of a collector's item book on the Space Shuttle. If I'm successful, HRPO will sell them as long as people want them.

Christopher

## CALL FOR VOLUNTEERS

### ON SITE

**Evening Sky Viewing:** Saturday, 12 March 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.

### OUTREACH

**Baton Rouge Zoo:** Sunday, 3 April from 9:30am to 5pm. *Two or three volunteers for three- to four-hour shifts.* Hydrogen-alpha telescope and demos.

**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.

## HRPO FRIDAY NIGHT LECTURE SERIES

\*11 MARCH: "The Universe Through X-Ray Glasses"

\*18 MARCH: "Arrival of the MESSENGER"

\*25 MARCH: "Olbers' Paradox" (postponed from 4 Feb.)

\*1 APRIL: "What's Up with SpaceUp?"

## LSU PHYSICS COLLOQUIA

Nicholson 109 at 3:40pm

17 March: "Topological Insulators"

*Zhong Fang, Chinese Academy of Science*

31 March: "Holographic Applications in Condensed Matter Systems"

*Sean Hartnoll, Harvard University and Stanford University*

7 April: "New Developments in Black Hole Physics"

*Abhay Ashtekar, Pennsylvania State University*



## **Irene Pennington Planetarium Showings–Baton Rouge**

We normally tout the advantages of the Highland Road Observatory but from time to time, we need to give due homage to our sister astronomical facility, the Planetarium in downtown Baton Rouge. I have noticed that there is a good show on through July 31 that you may enjoy attending. It is: **Bad Astronomy: Myths and Misconceptions** with an on screen discussion by Phil Plait.

Were the Apollo visits to the moon actually a hoax? Have aliens landed on Earth? Can you tell your future by the stars? Prepare to see pseudoscience tacked head-on and enjoy a unique approach to learning about the cosmos. “Bad Astronomer” Phil Plait takes a critical look at popular myths and silly misconceptions, including the erroneous astronomy presented in movies and on TV. He will show you how science can be used to clarify or prove questionable claims—whether planets can influence one’s life or a phase of the moon can cause inclement weather. This should be a fund and informative program for the entire family. It is also about time that we have another club meeting at the planetarium and let the staff there give us another personalized tour of the universe. Anyone up for such a visit?

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### **DUES TIME**

Please send your dues to Baton Rouge Astronomical Society, Inc.

Attn Bob Sinitiere, Treas.

14558 Cottingham CT

Baton Rouge, LA 70817-3543

Dues are 20.00 for individual

add 5.00 for each family member joining

Students 18 or under can pay student membership for 10.00/yr

Please report any dues date errors to Bob at [bobstar9@bellsouth.net](mailto:bobstar9@bellsouth.net)

#### **The following dues are now due and payable:**

- |                             |                                 |
|-----------------------------|---------------------------------|
| 1. Remy Bosio 9/2010        | 10. Mark, Joe Longuepee 12/2010 |
| 2. Donald Brocksmith 1/2011 | 11. Howard Maars 3/2011         |
| 3. David Dawson III 3/2011  | 12. Genny May 12/2010           |
| 4. Jules Dellinger 3/2011   | 13. Diane Meyers 2/2011         |
| 5. Richard Devall 3/2011    | 14. Joe Morris 11/2010          |
| 6. Michael Hebert 1/2011    | 15. O. Forrest Smith 3/2011     |
| 7. Gary Jinks 1/2011        | 16. Marlene Stelly 1/2011       |
| 8. Peter Lazar III 1/2011   | 17. Don Weinell 12/10           |
| 9. FB & Susan Leake 10/2010 |                                 |

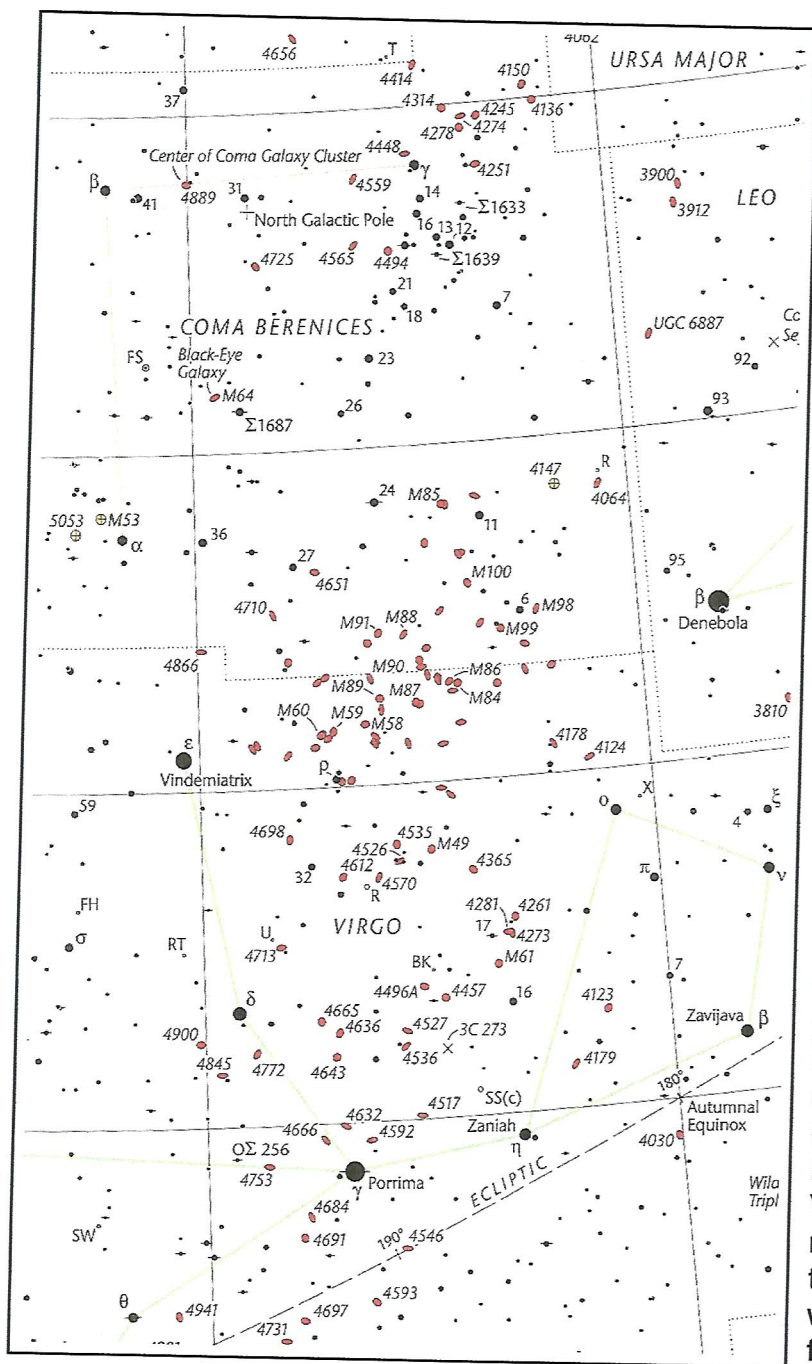


# Conquering the Virgo Cluster

By Trevor McGuire

Over the years of doing Messier observations, I have repeatedly heard things similar to -

*I've done all the Messiers except for Virgo.* My claim is that you do not have to be afraid of the cluster; on the contrary, you should relish in the challenge. Since I have completed the cluster in just about every way one can imagine using star hopping, I thought I would take the time to outline some of the more successful ways I have been able to tame to beast.

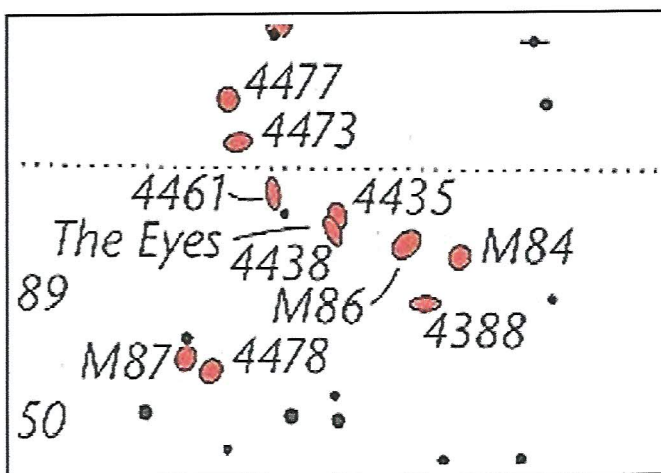


The two most obvious techniques to try can be thought of as left to right, or right to left, which would be east to west and west to east respectively. This makes intuitive sense. In the left to right system, you start at Vindemiatrix and head west until you stumble upon M60, or possibly the NGC 4762/4754 pair, depending on your skies. Once you hit M60, it is only a short hop over to M59, and then a little further to M58. When I've used this technique in the past, it has worked just fine for me. After finding the first few of the Messiers, you do have to backtrack a lot, but that is to be expected because it is easy to get lost. After a few times of doing this, though, you no longer have to go all the way back to Vindemiatrix because you will have memorized where M60 is. Using this method in the past, I found that when I was determined, I was able find all the Messier galaxies in the cluster in under 2 hours.

The inverse of the left to right method is obviously the right to left method. Using this, instead of starting at Vindemiatrix, you start at Denebola and make the long voyage over to M98. From there, you soldier on to M99, where you come to a fork in the road. You could choose to take the road less traveled, but unlike Robert Frost, we have the option of going both ways. To the north, we have M100 and M85, and further west we have the dense core of the cluster. This method works just as well as the left to right method, but when I have done this, I

find that backtracking is not as easy. Even hopping from Denebola to M98 is a challenge because M98 isn't nearly as easy to spot as M60 when hopping from Vindemiatrix, and it is further away. With that said, I have still completed the cluster using Denebola as my starting point, but I only did it once, and it cost me the better part of three hours of my first Messier Marathon.

Now that we have gone over the two naï techniques, which both work, is there something better? I like to think that there is. What I personally think is the best way is the inside out method. That is, find an identifiable feature in the center of the cluster, and work your way out from there. The major advantage to this is that backtracking becomes very easy. If you are already in the center of the cluster, you don't have very far to get to the edge, so you don't have very far to get back to your starting point. For every obvious advantage, though, there is an obvious disadvantage. In our case, the question is clear: what do we use from the center of the cluster? Luckily, there is one particular object that is exactly what we need. In my 10inch, f/5 with a 26mm eyepiece, I am able to perfectly fit a collection of galaxies that is part of a larger chain of galaxies called Makarian's Chain. In particular, I can fit the equilateral triangle of M84, M86 and NGC 4388, along with the pair collectively called *The Eyes*. These five are easy to pick up in decently dark skies, but under really dark skies, you can obviously pick out more of the fainter galaxies. Geometrically, though, this equilateral triangle coupled with a nearby pair create an extremely asymmetrical shape. This shape can be used like a compass within the cluster.



While sitting at your observing chair, you can find this shape, then turn your star chart to match the orientation, and you are set to go. With this method, I am able to complete the cluster in under an hour, while also stopping to take observation notes!

There are clearly many nuances with telescopes, eyepieces, focal lengths, magnifications, transparency, seeing, and of course lighting conditions, but with decently dark skies, the cluster is nothing to fear or avoid. Even if you aren't taking accurate observation notes, the Virgo cluster, together with nearby Coma Berenices, and gems like the Leo Triplet makes a great night of observing. I have outlined three different systems I've used to complete the cluster before, with average times it has taken me. For those of you who have never tried a Messier Marathon, let me mention one thing about timing. The marathoner should be starting the cluster at around 10 or 11pm if they are 'on time'. If you complete the cluster in under an hour, that means you are done by midnight. The next group of objects isn't high enough to view until 2am. That equates to two hours of sleep. Remember my three hour expedition from right to left? I finished the cluster at 2am on that marathon attempt, so I was not able to sleep at all. By 6am, when you have to wait nearly an hour for the Aquarian objects to rise only minutes in front of the sun, that lack of sleep really weighs heavily on you. In my case, I was unable to find those final three objects in time, but since I had also missed the first three objects, so the point was moot. So my advice is to find Makarian's Chain, and take baby steps away from it as you find the other galaxies and check them off the list.



# BRAS Observing Notes

## March / April 2011

### Constellation of the Month

### Canis Minor: The Lesser Dog

It is not hard to find this constellations big brother Canis Major and once you have done that you simply need to move across the Milky Way to the north north-east to find the cute little dog known as Canis Minor.

Canis Minor is often referred to as one of the dogs of Orion who go along to help him on his hunting expeditions. The constellation originally consisted only of the bright star Procyon but later acquired the additional star near the shoulder of the dog.

Procyon is the seventh brightest star in the night sky with an apparent magnitude of 0.34 and is a binary system. The system has such a bright apparent magnitude due to the fact that it is only about 11 light years away from us. Procyon A is believed to be a sub-giant star that has completely fused all the hydrogen in its core to helium and has begun to expand due to fusion in its outer layers. Procyon B is a white dwarf star which orbits at an average distance of 15AU.

#### Position in the Sky

Right Ascension: 8 hours

Declination: 5 degrees

#### Named Stars

Procyon

#### April Meteor Showers: Lyrids

Duration: April 16-26

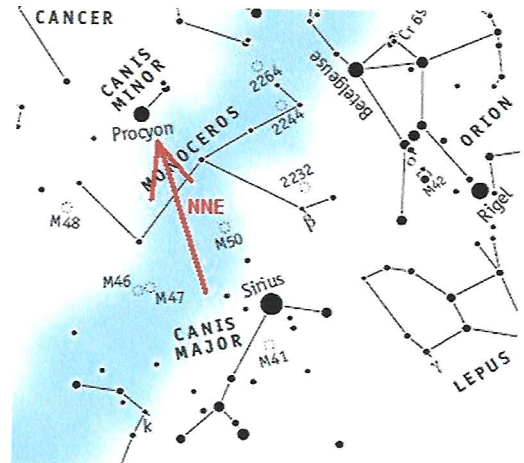
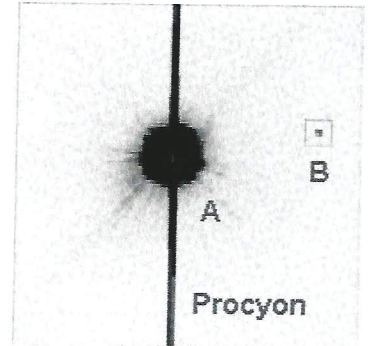
Peak: April 22<sup>nd</sup>

Radiant: Constellation Lyra

Right Ascension: 18 hours

Declination: 34 degrees

Expected Rate: 15 per hour



### BRAS Dark Sky Site Viewing Dates

March 5<sup>th</sup> and 26<sup>th</sup> 2011 and April 2<sup>nd</sup> and 30<sup>th</sup> 2011

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

Art Barrios, BRAS Observing Chairman

[art.barrios@cox.net](mailto:art.barrios@cox.net)

**Astronomy club members – watch out for aircraft if you use a laser to point out stars and constellations. Please read.**

#### **Vote by senate to criminalize the aiming of lasers at aircraft**

On February 4 a bill was passed, 96-1, making pointing a laser at an aircraft a criminal offence. They could face fines or a maximum of a five-year prison term.

Pointing a laser at aircraft is a national security threat. Someday, bringing down a plane with a laser will be a lot easier than blowing it up.

The FAA states that the number of incidents in which people have pointed lasers at planes and helicopters nearly doubled last year, from 1,527 in 2009 to 2,836 in 2010. In some instances, pilots had to relinquish control of the aircraft. As the technology improves, there is a chance pilots could be permanently blinded.

Experts tie the rise in incidents to a growing market for today's lasers, which are more powerful than the typical laser pointer. And prices have plummeted. Lasers that once cost \$1,000 or more are now available online for \$300 or less.

# The Evening Sky Map

FREE\* EACH MONTH FOR YOU TO EXPLORE, LEARN & ENJOY THE NIGHT SKY

## Sky Calendar – March 2011

Get Sky Calendar on Twitter  
http://twitter.com/skymaps

- 1 Moon near Venus (41° from Sun, morning sky) at 2h UT. Mag. -4.1.
- 4 New Moon at 20:46 UT. Start of lunation 1091.
- 6 Moon at apogee (farthest from Earth) at 8h UT (distance 406,583 km; angular size 29.4').
- 7 Moon near Jupiter (23° from Sun, evening sky) at 0h UT. Mag. -2.1.
- 11 Moon near the Pleiades at 4h UT (evening sky).
- 12 First Quarter Moon at 23:45 UT.
- 12 Moon near Aldebaran (evening sky) at 1h UT.
- 15 Moon near Pollux (evening sky) at 6h UT.
- 16 Moon near Beehive cluster (evening sky) at 6h UT.
- 17 Moon near Regulus (evening sky) at 22h UT.
- 19 Full Moon at 18:10 UT.
- 19 Moon at perigee (closest to Earth) at 19h UT (356,575 km; 33.5'). Occurs less than one hour after Full Moon. Very high tides expected.
- 20 Moon near Saturn (morning sky) at 21h UT. Mag. +0.4.
- 20 Vernal equinox at 23:21 UT. The time when the Sun reaches the point along the ecliptic where it crosses into the northern celestial hemisphere marking the start of spring in the Northern Hemisphere and autumn in the Southern Hemisphere.
- 21 Moon near Spica (morning sky) at 9h UT.
- 23 Mercury at greatest elongation, 17° east from Sun (evening sky) at 1h UT. Mag. -0.1.
- 24 Moon near Antares (morning sky) at 14h UT.
- 26 Last Quarter Moon at 12:07 UT.
- 27 Venus 0.15° South of Neptune (36° from Sun, morning sky) at 1h UT. Mags. -4.0 and +8.0.
- 28 Moon near asteroid Vesta (70° from Sun, morning sky) at 4h UT. Mag. +6.7.
- 31 Moon near Venus (35° from Sun, morning sky) at 7h UT. Mag. -4.0.

More sky events and links at <http://Skymaps.com/skycalendar/>

All times in Universal Time (UT). (USA Eastern Standard Time = UT - 5 hours.)



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- STAR ATLASES & PLANISPHERES
  - STAR CHARTS & ASTRO POSTERS
  - BOOKS FOR SKY WATCHERS
  - TELESCOPES & BINOCULARS
- Help support the production and free distribution of The Evening Sky Map

## NORTHERN HEMISPHERE MARCH 2011

SKY MAP SHOWS HOW  
THE NIGHT SKY LOOKS

EARLY MAR 9 PM

LATE MAR 8 PM

(Add 1 Hour For Daylight Saving)

SKY MAP DRAWN FOR

A LATITUDE OF 40°

NORTH AND IS

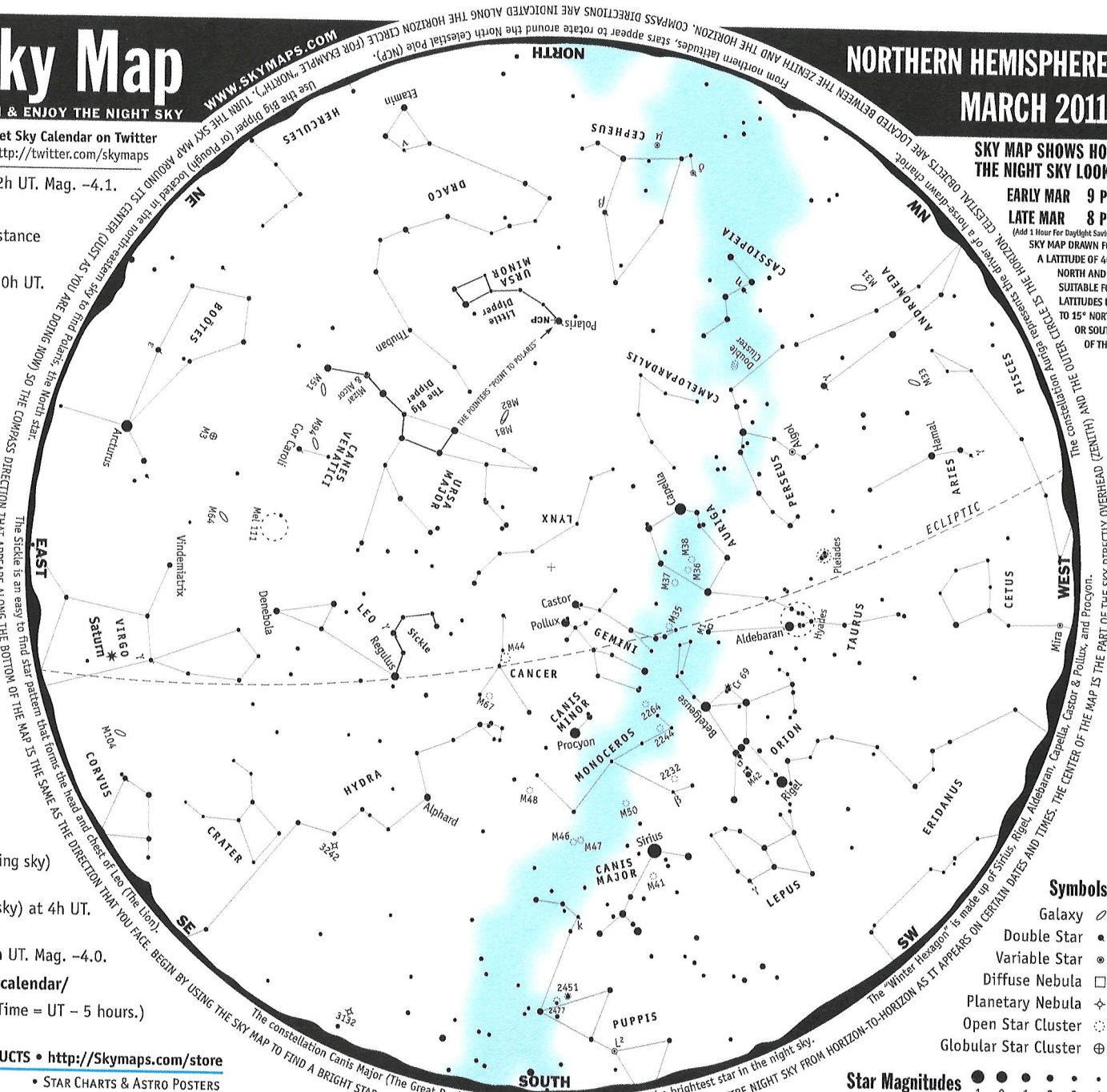
SUITABLE FOR

LATITUDES UP

TO 15° NORTH

OR SOUTH

OF THIS



### Symbols

- Galaxy ☾
- Double Star ★
- Variable Star ●
- Diffuse Nebula □
- Planetary Nebula ◇
- Open Star Cluster ○
- Globular Star Cluster ⊕

Star Magnitudes -1 0 1 2 3 4

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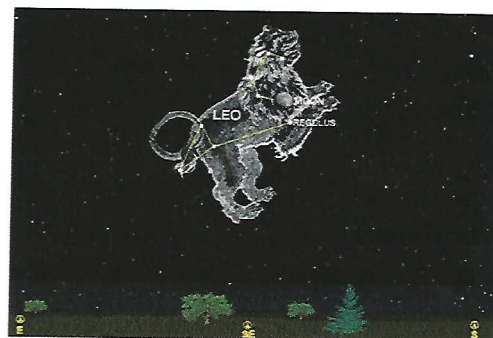




**Join the World-Wide Hunt for Stars  
During GLOBE at Night March 22 - April 4, 2011  
[www.globeatnight.org](http://www.globeatnight.org)**

**Can You See the Stars?**

Join thousands of other students and families around the globe hunting for stars during the sixth annual GLOBE at Night event! Take part in this international event to observe the nighttime sky and learn more about light pollution around the world.



**WHEN: March 22 - April 4, 2011**

**WHAT: International Star-Hunting Party**

GLOBE at Night is a hands-on learning event extending beyond the traditional classroom and school day involving teachers, students and their families. By locating and observing the constellation Leo in the night sky, students from around the world will learn how the lights in their community contribute to light pollution. This event is useful for teaching about the impact of artificial lighting on local environments and in raising awareness about the ongoing loss of people's ability to study or simply enjoy the night sky in many parts of the world.

**HOW: Five Easy Star-Hunting Steps**

Complete instructions are freely available at [www.globeatnight.org](http://www.globeatnight.org)

- 1) Find your latitude and longitude via suggestions on the Web site. Alternatively determine your latitude and longitude with an interactive tool when reporting observations on the Web site.
- 2) Find Leo by going outside an hour after sunset (approximately between 8-10 pm local time).
- 3) Match your nighttime sky to one of our magnitude charts.
- 4) Report your observation on our Web site.
- 5) Compare your observation to thousands around the world.

Over the last 5 years, GLOBE at Night has successfully run 2-week campaigns every winter/spring, during which a total of 52,000 observations have been submitted from 100 countries. Help us exceed these numbers in 2011!

**Let's get out and observe the night sky – March 22 - April 4, 2011!**

For more information visit [www.globeatnight.org](http://www.globeatnight.org)  
or send email to [globeatnight@globe.gov](mailto:globeatnight@globe.gov)



## ***From The Highland Road Observatory***

This month's theme for the Year of the Solar System is "Ancient Astronomers/Modern Tools". The modern MESSENGER spacecraft will enter orbit around ancient Mercury in just a few days. We hope you join us for the lecture on this incredible program, as well as the other incredible events-NanoDays and the one and only International Astronomy Day (our fifth consecutive year)!

### **CALENDAR OF EVENTS**

#### **FREE EVENING SKY VIEWING**

For all ages.

Fridays, 8:30-10 p.m. and Saturdays, 7:30-10 p.m.

The 4th Dimension Display and marshmallow roast will be available on 12 March.

#### **FREE LECTURE SERIES**

For ages 14 and older.

Fridays at 7:30 p.m.

**MARCH 4: "Zodiac Dreams"** What really is the Zodiac, and how many constellations does it have? Due to recent news stories you might be confused, but don't worry. We'll set the record straight, showing exactly what's going on, what people have thought about the Zodiac throughout the years, and what it all really means!

**MARCH 11: "The Universe Through X-Ray Glasses"** For over a decade, the Chandra X-Ray Observatory has orbited Earth, giving us a unique view of areas of the Universe where high magnetic fields or extreme gravity dominate. LSU physics professor Rob Hynes tells us what all of the data means and how it can shed light on the evolution of the Universe.

**MARCH 18: "Arrival of the MESSENGER"** Among the terrestrial planets, Mercury is an extreme. The smallest, the densest, the fastest, the one with the oldest surface. Today, the MESSENGER spacecraft goes into orbit around Mercury-and we'll be there to give you a fascinating overview of this robotic NASA mission.

**MARCH 25: "Olbers' Paradox"** In the 1800s an astronomer named Heinrich Olbers realized a seeming contradiction that had no easy answer-why doesn't the night sky look uniformly bright? LSU mathematics graduate student Trevor McGuire returns with a never-heard lecture for HRPO! (Postponed from February 4).

#### **SCIENCE ACADEMY**

Saturdays from 10 a.m.-12 p.m.

For children ages 8-12 \*\$5 per child per week/\$6 if out-of-parish \* Parent must remain with child \* Walk-ins welcome, but reservations can be made up to a week in advance via WebTrac. (Activity #541990)

\*HRPO will not have Science Academy March 5 or 19.

\*MARCH 12: Action/Reaction

\*MARCH 26: Surviving in Space

#### **FREE SOLAR VIEWING**

February 12 and February 26 from 12-1 p.m.

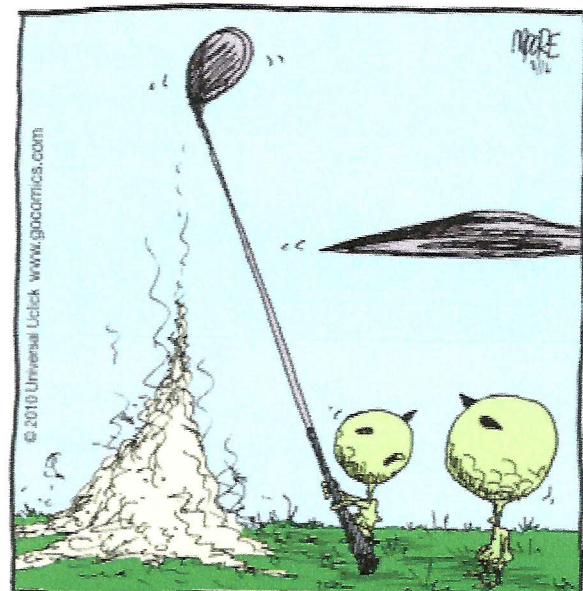
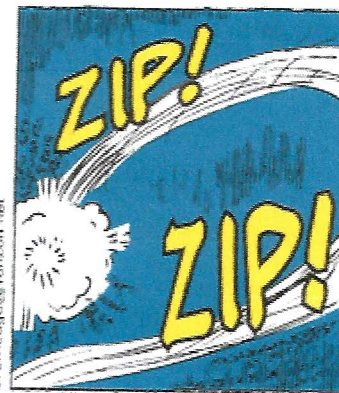
Protective clothing and sunscreen recommended. Handouts and information on UV radiation and solar power provided.



# COSMIC COMICS



Like that's ever going to happen!



"He kept trying to hit me with this thing ... so I vaporized him."



# 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 ( through age 17)     \$10.00     \$ _____</p> <p>◆ Donation* toward club building fund or<br/> ( _____ )     \$ _____<br/> <div style="text-align: center; font-size: small;"><i>Specify</i></div> </p> <p style="text-align: right; margin-top: 20px;"><b>TOTAL ENCLOSED</b>     \$ _____</p> | <p style="text-align: right;">Date _____</p> <p>Name _____</p> <p>_____</p> <p><b>Mailing Address</b></p> <p>_____</p> <p>_____</p> <p>_____ Zip _____</p> <p><b>Phone</b></p> <p style="text-align: right;">(H) _____</p> <p style="text-align: right;">(C) _____</p> <p style="text-align: right;">(W) _____</p> <p><b>E-Mail</b></p> <p>_____</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**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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