



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, 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 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 Roseatte 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

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?

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

The following dues are now due and payable:

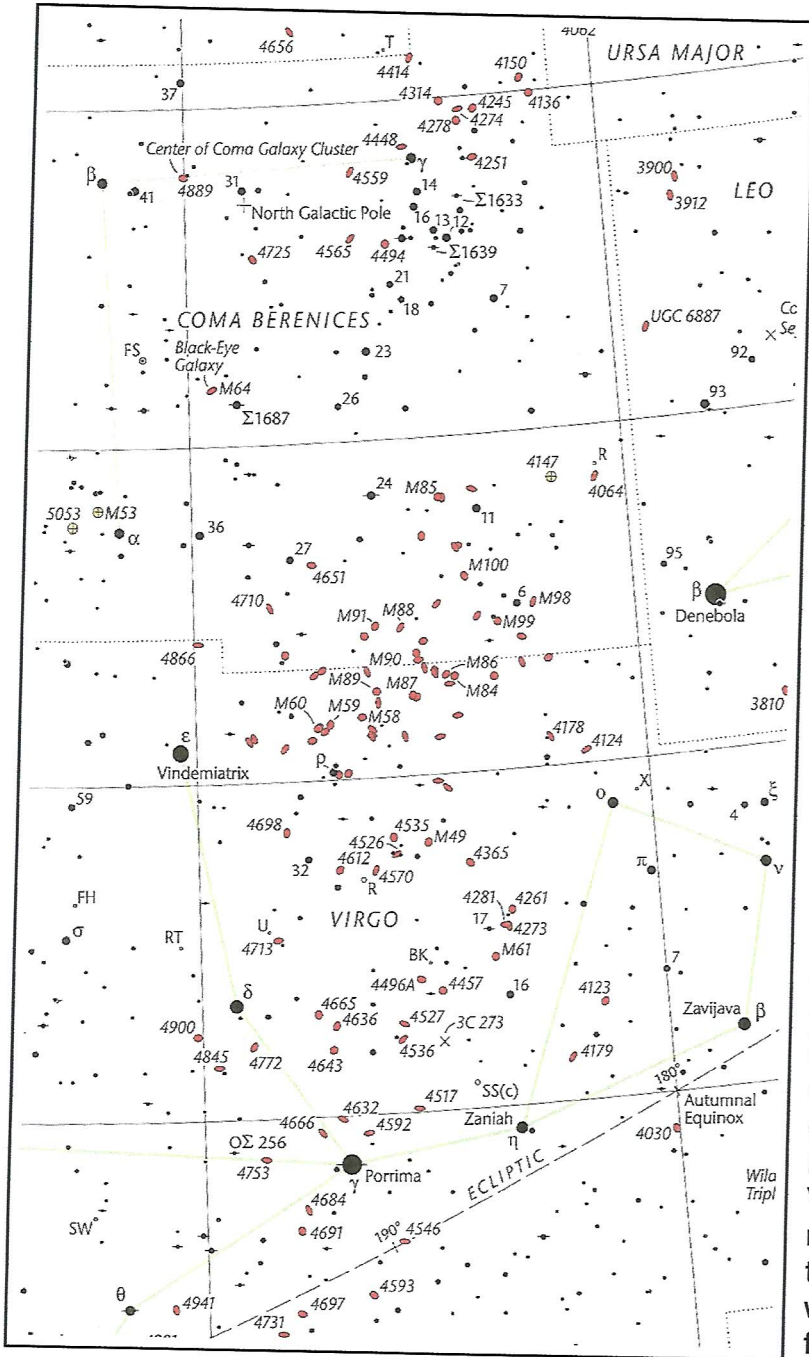
1. Remy Bosio 9/2010
2. Donald Brocksmith 1/2011
3. David Dawson III 3/2011
4. Jules Dellinger 3/2011
5. Richard Devall 3/2011
6. Michael Hebert 1/2011
7. Gary Jinks 1/2011
8. Peter Lazar III 1/2011
9. FB & Susan Leake 10/2010
10. Mark, Joe Longuepee 12/2010
11. Howard Maars 3/2011
12. Genny May 12/2010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

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.



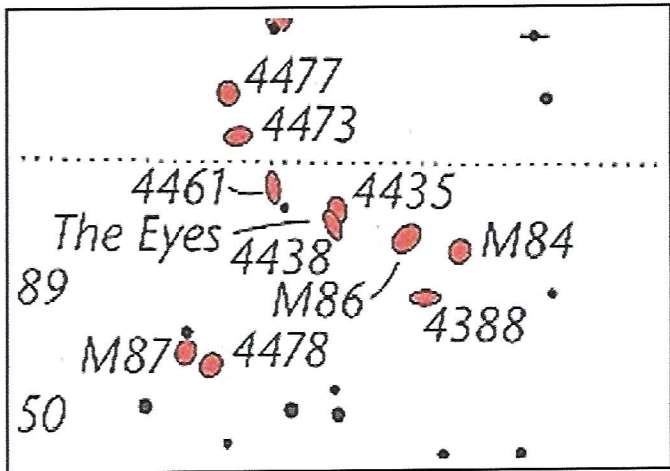
The two most obvious techniques to try can be thought of as left to right, or right to left, which would be east to west and west to east respectively. This makes intuitive sense. In the left to right system, you start at Vindemiatrix and head west until you stumble upon M60, or possibly the NGC 4762/4754 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 and 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.

