

SPECTRUM

Northern Cross Science Foundation Newsletter

March 2006

LOOKING UP

March 2 Thursday

General Meeting

6:30 p.m. Astronomy 101

7:30 Business Meeting

March 16 Thursday

Board Meeting

7:30 p.m.

Home of Jeff Setzer

March 24 & 25 Fri. & Sat.

Messier Marathon

5 p.m. Set up

Harrington Beach S. P.

Alternate dates:

March 31 & Apr. 1

Messier Marathon

5 p.m. Set up

Harrington Beach S. P.

April 6 Thursday

General Meeting

6:30 p.m. Astronomy 101

7:30 p.m. Business Meeting

April 20 Thursday

Board Meeting

7:30 p.m.

Home of Jeff Setzer's

April 29 Saturday

Member's Night

A host is needed!!!!

Alvin Panarusky Passes Away at 93

By Jeff Setzer

It is with great sadness that I must announce the passing of Alvin Panarusky.

As one of the founding members of the Northern Cross Science Foundation, Alvin Panarusky helped shape the NCSF into the community service organization that has done so much good over the past three decades. Alvin not only served very early on the Board of Directors, but he was also a very effective leader behind the scenes in the years that followed.

Alvin's generosity is well-known in the NCSF. He was the primary benefactor for the 20" telescope, which was named for him and became known as the Panarusky Telescope. It is this telescope, which saw First Light on May 15, 2002, that will serve the community for generations to come at Harrington Beach State Park.

Alvin was always interested in the youth members of the NCSF. When I was young and still in school, he would often strike up a conversation with me after the meeting. Whether we would talk about

astronomy, high school football, or college plans, he always encouraged me and advised me to make the most of my opportunities. In those days, and in the years that followed, I looked upon him as an example of somebody who quietly made a difference in other people's lives, and that is exactly how I will remember him.

From the Sunday, February 26, 2006 Milwaukee Journal-Sentinel:

Alvin "Beno" Panarusky

PORT WASHINGTON. February 24, 2006, age 93 years. Loving husband of Hildegarde (nee Wollmann). Beloved father of Amy (Steve) Wissbroecker, Mike (Kathy) and Mark (Claire) Panarusky. Further survived by 7 grandchildren, other relatives and friends. Memorial service Sat., March 4, 12 PM at Eernisse Funeral Home. Friends may call at the funeral home Saturday from 10AM until the time of services.

EERNISSE FUNERAL HOME

1600 W. Grand Ave. Hwy. 33 & LL

Port Washington 262-284-2601

Navigating the Virgo Cluster

By John Barra

[Http://www.astronomical.org/portal/modules/wfsection/article.php?articleid=117](http://www.astronomical.org/portal/modules/wfsection/article.php?articleid=117)

Attempting to find one's way through the Virgo Cluster for the first time can be a daunting experience. Many galaxies can be found in this cluster at the Virgo/Coma Berenices border. And very few bright stars are there as guideposts. Following a few sensible steps should allow you to

accomplish this feat if you have become competent at starhopping. However, instead of starhopping, you will learn the art of galaxy hopping. This lesson is limited to locating those fourteen Messier galaxies in the cluster. The non-Messier galaxies are at least one magni-

(Virgo on page 2)

(Virgo from page 1)

tude dimmer and more difficult to find. And the other Messier objects in these two constellations that are not in this cluster can be located using the traditional starhopping techniques.

Have a Good Working Chart

The very first thing that is needed is a good working chart. You will need to use this chart both to plan your path, as described later, and at the telescope, as you try to navigate your way through the cluster. Charts need to have stars plotted to the approximate magnitude of the dimmest Messier galaxy in the cluster, magnitude 10. If your chart only has bright stars, you will soon get lost. If they have stars that are too dim, you will soon get confused because of too many stars. I prefer using Uranometria 2000.0. It plots stars to around magnitude 10 and has a handy grid with the declination lines at 1° intervals. You can use any good star book or computerized chart as long as it is easy to follow and has the appropriate magnitude limit. Whatever chart is used, a Xerox or other field copy is a necessity. Be aware of the direction that your telescope will have to be moved and the orientation of the field in your scope versus that of your map. For example, refractors generally will give a mirror or reverse image. If you have a chart or computer program that can match the two, do so.

Choose a Path

The most important part of this process is to choose a good path. Take a look at your star chart and determine the easiest order to locate the objects. It matters not so much where you start as long as the starting point is easy to find and as long as your path will have the least, if any, dead ends or backtracking. I use the path suggested in the May 1994 Sky & Telescope article: "Mastering the Virgo Cluster," by Alan MacRobert on page 42. It includes ten of the Messier Virgo Cluster galaxies. You can make a copy of the article at any large library that carries back issues of the magazine. While the map has a black background and therefore

cannot be copied as a good field chart, the article describes the path in great detail and has some good photographs of the Virgo galaxies. This path starts with a bright star Epsilon Virginis, which has a small asterism next to it that points in the right direction. I added the asterism to my chart. I then starhop to 41 and 34 Virginis to my first galaxy, M60. You may find an easier way to get to M60. Below is the path I use to galaxy hop through the cluster, adding the four not included in the MacRobert article:

1. M60, then to:
2. M59, then to:
3. M58, then to:
4. M89, then to:
5. M90, then to:
6. M91, then to:
7. M88 At this point, you need to backtrack to M89 (i.e. Go from M88 back to M91 back to M90 and finally back to M89) before moving on to the last seven galaxies:
8. M87, then to:
9. M86, then to:
10. M84, then to:
11. M99, then to:
12. M98, then to:
13. M100, and finally to:
14. M85 In designing your path or chart, pay attention to the angles that the line between two galaxies make to the line to the next galaxy. Also be aware of the relationship of the approximate distances between the pairs. For example, I noted in my path that M60, M59, and M58 are all in a straight line and that M58 is about twice as far from M59 as M59 is from M60. Then M58 to M89 is at about a 135° angle from the M59-M58 line but they about the same distance apart. There are a few other things you want to make note of or add to your working chart. Note any bright stars, close doubles or asterisms that are in the path to or are near your targeted galaxies. If you find a fainter asterism in a different chart but within your scope's ability and it will help you find or confirm a galaxy in the field, add it to your field chart.

At the Telescope

Now that you are at your telescope in the field, find your starting-point star and begin to follow the path you have

charted. Lower power is used for hopping and locating while higher power is used for confirming. Use all the techniques previously taught in the earlier lessons such as averted vision. Once you have confirmed that you found a specific Messier galaxy, don't be afraid to add any star, asterism, or any other object which was not in your chart but which will make it easier to locate that galaxy the next time. If you get lost at any point, don't get frustrated. Go back to the start and begin again. You will now be able to travel quickly to the last point before you got lost. Try to find the next object and learn what you did wrong on your last attempt. You might not make it through the entire cluster the first time. But each time you try will make it easier. Once you have completely navigated the cluster, you may even want to make changes to the path or other appropriate additions to the chart. Future attempts will be completed faster. You can then go back and add other fainter NGC Virgo galaxies to your chart and try to find them. Or just go out to the next star party and show off your new skills. But once you have found all the Messier galaxies in this tough cluster, you hopefully will have completed the Messier list and be eligible for an Astronomical League award.



Astronomy 101 And Main Program**By Joyce Jentges**

The topic for the 101 class at the March meeting will be The Planets in 2006. The constellation of the month will be Columba.

The march meeting will feature Phil Schumacher as our speaker for the main program. His talk is titled Introduction to Astronomical Imaging Processing . This talk will introduce the ba-

sics of taking and processing CCD images of deep sky objects. Included are: basic image calibration, image stacking, the importance of improving the signal-to-noise ratio, bringing out faint details, and other processing techniques. The talk will be illustrated with many deep-sky imaging examples.

Hosts Needed For Member's Nights**By Joyce Jentges**

If you look at the calendar of events that was on the blue sheet in the Feb. newsletter, you will see that there are plenty of members nights available. If you noticed, on page one of this newsletter, April 29th is listed as a members night, but a host is needed.

To host a members night, all you need

to do is let Kevin Bert know, and he will let you choose from available spots. As the host, you are providing a dark sky site, which can be at your house, or Harrington Beach State Park. While some members are able to put out a nice spread of food, it is not necessary to provide a lot of food.

New Members: Please give a big welcome to the following new members: Alan Kent from Milwaukee ,and Michaela and Fiona Powell (children of Rob Powell)

It's not too late!!!! You can still sign up to get your newsletter online! Just send me an email, and tell me you want to get your email online, and I will add you to the online newsletter list starting in April.

Correction: It has taken me several attempts to correct Rob Powell's new email address. The correct address is listed on page 4. Also, for Jeff Setzer, there is a new email address listed for him. This should be used for all NCSF correspondence with him.

Munchies are fine, or you can ask those attending to bring food too.

Please see Kevin Bert at this next meeting if you are interested in hosting a members night.

From the Editor**By Joyce Jentges**

As I look ahead on our calendar, I see we have many events coming in the next few months. Hopefully you will be able to get out and participate in some of these events. After doing this for a number of years now, I find that while sometimes I really enjoy the members nights, other times, I really like to go to the public viewing nights.

I don't know what it is about showing the public things in my telescope, but I truly enjoy it. Maybe its because I can share my knowledge and excitement about our hobby with someone who has a slight interest. You never know when that slight interest might develop into something more than just a passing interest. I find in the course of talking to a lot people that there are many with an interest in astronomy, but they have no clue that

you can actually participate in a hobby like this. Maybe in some cases they have even bought a telescope (probably a cheapie department store scope), and are frustrated using it. I like it when I can help to steer that person in the direction of a better telescope, or even just get them to come out and look through our telescopes. I mean, that is what we are here for after all, isn't it?

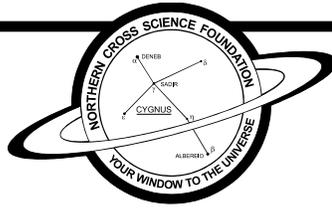
Over the next few months as we prepare to build our new observatory, there will be many opportunities for you to get involved in our club. This might be anything from helping to put finishing touches on the observatory, to helping get the word out about our observatory dedication, to being on hand for Astronomy Day in May, or

writing an article for the newsletter or even going to a school for a presentation. Over the course of this year, I would like to challenge you to become involved in our group in a way you haven't been before.

To all of you who are active in our club, I want to thank you for all the hard work you put into this organization. Without the support of our members, the Northern Cross Science Foundation would not exist. You assist us in so many ways whether monetarily, or giving of your time and talents.



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For Sale:

4" Meade Refractor. Model 102ACRH/500, on a German Equatorial mount. \$450.00. See Gene DuPree if interested.

1 large navy blue NCSF t-shirt—\$10.00

1 large navy NCSF polo shirt—\$15.00

See Joyce Jentges if interested.

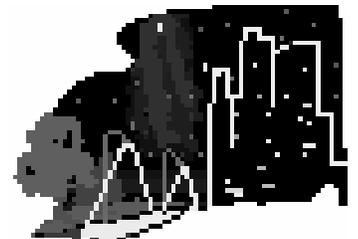
Newsletter note: The deadline for submission to have information put in the newsletter is the 20th of each month. Absolutely no items will be accepted after this date.

SPECTRUM

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<http://www.ncsf.info>