



CAPE FEAR

Skies



*The
Monthly
Newsletter of the
Cape Fear Astronomy Club*

Volume 3 No. 5

Wilmington, NC

May 1988

May Meeting Announcement

May 1, 1988
7:00 PM
Bryan Auditorium
Morton Hall
UNC-W Campus

The next meeting of the Cape Fear Astronomy Club will be held on May 1, 1988 in the Bryan Auditorium of Morton Hall on the UNC-W Campus. The Business meeting will begin at 7:00 PM EDT.

The general meeting will begin at 8:00 PM. This month's program for the general meeting will be a demonstration of how to setup and align a telescope.

I hope to see you at the meeting.

Meeting Minutes from April.

April 10, 1988

Alan Hilburn called the April meeting of the Cape Fear Astronomy Club to order at 7:00 PM. He mentioned there still are spaces left for the Southern Star Convention. Several members will attend this activity April 22th through 24th.

Paul Petty called roll. There were 27 members present. Paul will order t-shirts soon. They must be ordered in lots of twelve by Paul.

David Maness gave a report on the candy sale. So far 1062 bars have been sold with a profit of 177 dollars for the observatory fund. We will attempt to sell the remaining candy at the Wilmington Marketplace this coming Saturday April 16th.

Ronnie Hawes gave the treasure's report. We now have both a checking and a savings account. Ronnie has ordered Star Wheels and Mars mapping kits for each club member.

Alan mentioned we will be making plans to view Mars behind Trask School later this year.

The CFAC Yard Sale will be held May 21th. Please support this project. Location will be announced later. Paul and Alan will store items until the sale if necessary.

The New Hanover County Fair will be held in October. The cost of a booth is \$150. We feel this would be money well spent because of the exposure our club will get.

On Saturday, April 16th, we will have a booth at the Wilmington Marketplace to display some of our telescopes and Ronnie's models. We will be selling candy and giving out fliers and applications. We will only stay at the Marketplace until 4:00 PM. Afterwards we will have a club viewing session at the

(Continued on page 2)

Inside This Issue

- Editor's Emission..... 3
- Gift Certificate Available.... 2
- Mars Opposition Planning..... 2
- May Meeting Announcement 1
- Meeting Minutes from April.... 1
- Marketplace Candy Sales..... 6
- Mars Calendar..... 5
- Planetarium Poetry..... 3
- Sky Calendar for May..... 7
- What does NGC Mean?..... 4
- Welcome New Members..... 2
- Upcoming Events..... 8
- Yard Sale..... 2

(Meeting Minutes - continued from page 1)

Pender County site. This session will be informational and educational. Ronnie will also begin the Messier sighting and verification for those who have signed up.

Less than 50 people attended the public viewing session held on April 9th. Paul suggested that due to the poor turnout of the public during the Azalea Festival that we have only a club viewing session at this time next year.

Ronnie talked about ways to increase membership participation. It is felt that we need to do more to educate our members. Kevin Dunay agreed to bring his telescope to our next meeting so that we can teach our members how to do a polar alignment.

Astronomy Day will be observed on May 7th and 8th with an exhibit at Independence Mall. We will finalize our plans

for this activity at the May 1st meeting.

Lake Forest School has requested an Astronomy program in response to our letter. Plans will be made next week. This program will probably focus on the planets.

On Tuesday, April 19th, both the Moon and Venus will be close together in the sky and can be seen about 1 hour before sunset.

David Maness made the observatory plans available for members to inspect during the break period.

The general meeting started at 8:10 PM. Ronnie gave a slide presentation on the size comparison of the planets of the solar system. The meeting adjourned at 8:30 PM.

- Barbara McGowan

Gift Certificate Available

(The following note was received from Barry Simon on March 20, 1988. Barry is the editor of the newsletter "New Horizons" which is sent to members of the Astronomical League's southeastern region. It is reproduced here as he has requested. -ed.)

Dear Fellow Astronomer,

The President of Scope City (Simi Valley, CA) has offered a \$20.00 gift certificate to any "NEW HORIZONS" new subscriber. In essence then, a new subscriber pays \$3.00 and gets 4 issues of "NEW HORIZONS" and \$20.00 off on a Scope City purchase. Please pass this along to your fellow club members; you may even want to photocopy this card for your next newsletter. The Spring issue of "NEW HORIZONS" will be going out in about 3 weeks.

- Barry Simon

Yard Sale

May 21, 1988, 7:00 AM thru 2:00 PM

The Cape Fear Astronomy Club will be having a yard sale on May 21st. May 28th has been scheduled as a rain date. It is hoped that we will be able to hold this yard sale on the lot across Kerr Avenue from the National Outlet. However we do not yet have permission from Mr. Whitey to use this land again but we hope to have his permission by the May meeting.

Paul Petty and Alan Hilburn will store any item you wish to donate for this yard sale. This is an opportunity to rid yourself on any item that you no longer want or need without just throwing it away. The money raised from the yard sale will be added to our general club treasury.

Planning for the Opposition of Mars.

Mars is at opposition during the full moon. For club viewing that doesn't present any problem.

However, for public viewing, the 1st of October may be a better time. The moon will not be a problem that weekend and Saturn, Uranus, Neptune and various other objects will be visible. The public usually enjoys viewing many different objects instead of many views of one object.

Depending on how many club telescopes are set up, we need to have at least 3 on Mars itself. I suggest we put up information boards beside each telescope telling what the scope is directed on, the size of the scope, ect. Also we should have an information board on Mars itself and possibly play War of the Worlds on cassette. The information board should show the orbit of Mars, vital statistics ect. Also a consideration should be having step stools for small children and roped off areas around the telescopes to prevent them from being knocked around by the public.

This session needs to be decided on early and planning should start now. This can be a great event for us if done in an organized way.

- Jane Fountain.

Welcome New Members

Please extend a clear skies welcome to our new members. Laura Maness; Judy and Chad Suggs; Karl and Mary Adlon; and McQueen Worley. Our club now has 47 paid members.

Planetarium Poetry

(This poem is reprinted from the March-April 1988 issue of *Tonight's Asteroids*.)

The stars, like dust
from Asimov's dreams
fill my eyes till morning.

What mysteries lie
around those suns
where planets may be forming?

Imbedded in
that deep blue-black
those shining pinpoints lights.

Keep me engrossed
at my telescope
enjoying those cloud-free nights!

I wait each night
for planets to rise,
and pray for clear weather to last.

I stare at the very same
Heavenly orbs
that Ptolemy saw - ages past!

I search the sky
for galaxies
and objects not seen before,

But find them only
creates a desire
to continue the search for more ...

With patient eyes through glass I gaze - and magnify my dreams ...
Forever each night - I stand amazed: how glorious it seems!

Domitta H. Gladson
Wilson, North Carolina

Editor's Emissions

Now that I have several issues of the *Cape Fear Skies* newsletter under my belt, I think it is time that I talked to the membership of the Cape Fear Astronomy Club about the club's newsletter.

Let me start by saying that this is your newsletter and it is produced as an aid for you. I hope that you have been finding the newsletter to be both interesting and informative.

I have received many positive comments about the layout and physical look of the newsletter. It has taken some time but I can now say that the newsletter has the physical layout that I have wanted it to have since becoming editor. It is possible that I will make changes to the layout of the newsletter in the future. However, I do not think that any future changes will be of a major nature.

Having achieved the physical layout that I think is best suited for this newsletter I will now try to focus more on the content of the newsletter.

I see *Cape Fear Skies* as providing three basic functions for the membership.

The first function is to keep the membership informed on past club activities as well as announcing upcoming events. I see the past meetings minutes; the next meetings announcement; and the notes on other club activities as accomplishing this function.

The second function is to provide information to the membership what will help them in observing the sky. The monthly sky calendar; the Abrams evening sky when it can be included; and the ephemerides of the Sun, Moon, and comets are all intended to accomplish this function.

The third function is to provide a means of spreading educational information about astronomy to the membership. Last month's article on the Messier Objects and this month's article on the NGC objects are samples of articles that I hope will fulfill this function. There are more to come in the future and I hope to have one such article in each issue.

Now I must ask you for your help. If there is anything that you think would improve this newsletter please bring it to my attention.

Is there some other function that the newsletter should be providing that I have left out? Have you done something special or interesting within astronomy that you would like to share with the rest of the club? Is there something you think the club membership will enjoy reading about? Is there some part of astronomy that you wish to explain to the membership?

If any of these are true please contact me. I would be especially happy if you were to write an article to cover any of the above questions. If you need or want help in writing something for the newsletter I will do my best to supply the help that you need.

- Tom Jacobs

What does NGC mean?

Last month I gave an explanation on the Messier Objects. This month I will try to explain about the next most common catalogue of object of interest to amateur astronomers. But first a review of last month's article and a little history.

Charles Messier was the first person to publish a list of "fuzzy" objects in the sky. He published this list late in the 18th century. During the early and middle part of the 19th century great strides were made in observational astronomy. The quality and quantity of telescopes available were rapidly improving due to better and more accurate manufacturing techniques. But the greatest advance for observational astronomy came from the introduction of photographic techniques to record what was seen in the sky in place of drawing a sketch of what had been seen. The effect of these improved telescopes and using photographs to record what was seen in the sky was to greatly reduce the magnitude of the faintest object that could be detected.

Being able to see much fainter objects increased the number of visible stars in the sky dramatically. As the number of stars in the sky grew so did the number of "fuzzy" objects.

Messier had listed 109 objects in his catalogue late in the 18th century. By the end of the 19th century the improved observational methods had increased the number of known "fuzzy" ob-

jects into the thousands.

Chaos and confusion was taking hold as different observers found and catalogued these "fuzzy" objects in different orders. (Each observer catalogued an object in the order he found them.)

To end the confusion an astronomer named J. L. E. Dreyer compiled a new comprehensive catalogue which included all of then known "fuzzy" objects. Dreyer published this new catalogue in 1888. He called his catalogue the New General Catalogue of Nebulae and Clusters of Stars or the New General Catalogue as a short form. NGC comes from the abbreviation of New General Catalogue.

An NGC object is an object listed in this catalogue of "fuzzy" thing in the sky. The number of an NGC object comes for the order in which the objects were entered into the catalogue. NGC1 was the first and NGC2 was the second.

At times you might see a reference to a Revised New General Catalogue. This is Dreyer's NGC with errors corrected and includes additional entries for object found after Dreyer's initial publication almost a century ago.

- Tom Jacobs

Astrophotographs Are Needed

The club would like to borrow any photographs you might have of any object in the sky. The club needs the photographs for the programs that are being prepared for the local schools. Any photograph that you bring to the general meeting will be copied and returned to you. Any materials you can provide to help in preparing these programs will be appreciated.

Club Activity Planning Session

Currently the club has activities scheduled through the end of May. Before the end of May the club will need to schedule a workshop to plan the club activities for the rest of the year. The time and place for this workshop will be decided and announced during the May business meeting.

Marketplace Candy Sales

On April 16th the Wilmington Marketplace provided the Cape Fear Astronomy Club with the space for a display of some of our telescopes and a chance to do some fund raising. The club used this opportunity to sell candy for the observatory fund plus bumper stickers and t-shirts for the club's general treasury.

There was only a small number of people at the Marketplace on this Saturday and sales were also small. We did give out many of the club brochures.

Present for the club were: Jane Fountain; Ronnie Hawes; Page Hilburn; Tom Jacobs; David Maness; Paul Petty; and Wayne Teachey.

At dusk later in the day there was a viewing session held at the Fort Fisher Museum.

Mars Opposition Sky Calendar

This Sky Calendar gives information about the planet Mars for the rest of this year. It is included in this month's issue of Cape Fear Skies to assist in planning Mars observing during this year's opposition. This calendar has been created by selecting all of the entries for Mars that will appear in our regular monthly "Sky Calendars" for the rest of the year. Information on the phase of the moon is also included to help you estimate sky conditions.

Sunday May 1st

23:41 Full Moon. Called the "planting" or "milk" moon.

Monday May 9th

1:23 Moon at last quarter.

6:00 Mars passes 0.8° north of the Moon.

Friday May 15th

22:11 New Moon. Lunation number 809.

Saturday May 23rd

16:49 Moon at first quarter.

Tuesday May 31st

11:00 Full Moon. Said by some to be a "Blue" moon because it is the second full Moon this month.

Monday June 6th

20:00 Mars passes 2° south of the Moon.

Tuesday June 7th

6:21 Moon at last quarter.

Tuesday June 14th

9:14 New Moon. Lunation number 810

Thursday June 22nd

10:23 Moon at first quarter.

Wednesday June 29th

19:46 Full Moon. Called the Rose; Flower or Strawberry Moon.

Tuesday July 5th

7:00 Mars passes 5° south of the Moon

Wednesday July 6th

11:36 Moon at last quarter.

Wednesday July 13th

21:53 New Moon. Lunation number 811.

Sunday July 17th

16:00 Mars at its greatest southern latitude -1.9°.

Friday July 22nd

2:14 Moon at first quarter.

Friday July 29th

3:25 Full Moon. Called the Thunder or Hay Moon.

Tuesday August 2nd

11:00 Mars passes 8° south of the Moon.

Thursday August 4th

18:22 Moon at last quarter.

Friday August 12th

12:31 New Moon. Lunation number 812

13:00 Mars at perihelion distance is 1.38 a.u. from the Sun.

Saturday August 20th

15:51 Moon at first quarter.

Friday August 26th

23:00 Mars is stationary in right ascension begins retrograde (westward) motion.

Saturday August 27th

10:56 Full Moon called the Green Corn or Grain Moon.

Tuesday August 30th

3:00 Mars passes 9° south of the Moon.

Saturday September 3rd

3:50 Moon at last quarter.

Sunday September 11th

4:49 New Moon. Lunation number 813

5:00 Winter solstice on Mars.

Monday September 19th

3:18 Moon at first quarter.

Thursday September 22nd

3:00 Mars at its closest approach to the Earth. The distance will be .39 a.u. from Earth to Mars.

19:29 Equinox. Fall begins in the northern hemisphere.

Sunday September 25th

4:00 Moon at perigee distance from Earth is 56.1 Earth-

Continues on page 6

Mars Calendar - Continued from page 5

radii.

19:07 Full Moon.

Monday September 26th

4:00 Mars passes 7° south of the Moon.

Wednesday September 28th

4:00 Mars at opposition.

Sunday October 2ed

16:58 Moon at last quarter.

Monday October 10th

21:49 New Moon. Lunation number 814.

Tuesday October 18th

13:01 Moon at first quarter.

Sunday October 23rd

4:00 Mars passes 5° south of the Moon.

Tuesday October 25th

4:35 Full Moon. Called the Hunters moon as it is the first full moon after the Harvest Moon.

Sunday October 30th

14:00 Mars is stationary in right ascension resumes forward (eastward) motion.

Tuesday November 1st

10:11 Moon at last quarter.

Wednesday November 9th

14:20 New Moon. Lunation number 815.

Wednesday November 16th

21:35 Moon at first quarter.

Saturday November 19th

16:00 Mars passes 3° south of the Moon.

Wednesday November 23rd

15:53 Full Moon. Called the Frosty or Beaver Moon.

Thursday December 1st

6:49 Moon at last quarter.

Friday December 9th

5:36 New Moon. Lunation number 816

Sunday December 11th

20:00 Mars at ascending node.

Friday December 16th

5:40 Moon at first quarter.

Saturday December 17th

16:00 Mars passes 3° south of the Moon.

Friday December 23rd

5:29 Full Moon called the moon before Yule or the long night moon.

Saturday December 31st

4:57 Moon at last quarter.

Sky Calendar for May 1988

(All times are Given in UT to convert to EDT subtract 4 hours.)

<u>1st</u>	9:00	Pluto at opposition; moves into the evening sky.	<u>13th</u>	15:00	The Sun enters the constellation of Taurus
	23:41	Full Moon. Called the "planting" or "milk" moon.			
	-----	Phi Bootids Meteor radiant is right ascension	<u>14th</u>	-----	Skylab is placed in orbit on this date in 1973 by
		16:00; declination +51°; ZHR = .2; velocity 12-16			the last of the Saturn 5 boosters.
	-----	km/sec.	<u>15th</u>	22:11	New Moon. Lunation number 809.
		Alpha Scorpiids Meteor several possible radiants.	<u>17th</u>	17:00	Mercury passes 3° south of the Moon.
		Watch right ascension 16:32; declination -24° and			
		16:04; -24°. ZHR = 8; velocity 35 km/sec.	<u>18th</u>	13:00	Venus passes 1.2° south of the Moon.
<u>2nd</u>	21:00	Jupiter in conjunction with the Sun moves into the	<u>19th</u>	2:00	Mercury at it's greatest eastern elongation 22°.
		morning sky.			
<u>4th</u>	2:00	Antares passes .4° north of the Moon.	<u>22nd</u>	13:00	Venus stationary in right ascension begins retro-
	-----	Eta Aquarids Meteor radiant is right ascension			grade (westward) motion.
		22:20; declination -1°; ZHR = 21; velocity 67 km/	<u>23rd</u>	12:00	Juno in conjunction with the Sun.
		sec. Good luck looking the near full Moon will rise		14:00	Moon at Apogee distance is 63.4 Earth radii.
		well before the radiant.		16:49	Moon at first quarter.
<u>5th</u>	15:00	Uranus passes 5° north of the Moon.	<u>25th</u>	4:00	Moon at descending node.
	17:00	Saturn passes 6° north of the Moon.			
	-----	Alan Shepard becomes America's first astronaut in	<u>27th</u>	23:00	Spica passes 0.8° north of the Moon
		space aboard his Mercury spacecraft Freedom 7 on			
		this date in 1961. His flight was a 15 minute sub-	<u>29th</u>	12:00	Pallas stationary in right ascension.
		orbital mission launched by a redstone booster.			
<u>6th</u>	7:00	Neptune passes 6° north of the Moon.	<u>31st</u>	10:00	Antares passes 0.4° north of the Moon.
	20:00	Venus at it greatest brilliancy magnitude is -4.4.		11:00	Full Moon. Said by some to be a "Blue" moon be-
<u>8th</u>	12:00	Mercury at greatest northern latitude of 7°.		22:00	because it is the second full Moon this month.
<u>9th</u>	1:23	Moon at last quarter.			Mercury at descending node.
	6:00	Mars passes 0.8° north of the Moon.			
		Comet Reinmuth at perihelion.			
<u>10th</u>	22:00	Moon at perigee distance is 57.9 Earth radii.			
<u>11th</u>	16:00	Mercury passes 8° north of Aldebaran.			

Upcoming Events for May

Monthly Meeting of the Cape Fear Astronomy Club
May 1, 1988; 7:00 PM - Bryan Auditorium; Morton Hall

Astronomy Day Exhibit at Independence Mall
May 7 and 8, 1988; 11:00 AM through 6:00 PM

Lecture Session for the Arts Council
May 11, 1988;

Deadline for the June 1988 Newsletter
May 18, 1988

Club & Arts Council Viewing Session
May 14, 1988; Dusk until "?" - Pender County Site

Club Yard Sale
May 21, 1988; 7:00 AM to 4:00 PM - Site to be announced.
(rain date: May 28, 1988)

Tom Jacobs - Editor
c/o Cape Fear Skies
110 Linville Dr.
Castle Hayne, NC 28429



Alan Hilburn
120 Coventry Rd.
Wilmington, N.C. 28405