



# CAPE FEAR *Skies*



*The  
Monthly  
Newsletter of the  
Cape Fear Astronomy Club*

*Volume 3 No. 4*

*Wilmington, NC*

*April 1988*

## The April Meeting

April 10, 1988

7:00 PM

Bryan Auditorium

Morton Hall

UNC-W Campus

The next meeting of the Cape Fear Astronomy Club will be held on April 10, 1988 in Bryan Auditorium of Morton Hall on the UNC-W Campus. Note that this is the second Sunday of the month to avoid the Easter Holiday. The Business meeting will begin at 7:00 PM EDT. This starting time reflects the normal meeting time for those months in which Eastern Daylight Time is in effect.

The general meeting will begin at 8:00PM. The program for the general meeting this month will be a slide presentation on "Worlds in Comparison".

Let us hope that the warmer weather will also bring clear skies.

represents quite a savings for us. He has contacted several people and organizations trying to elicit interest and support for our observatory. David also reported that he has about 3 or 4 cases of candy left. Any one wanting more should contact him.

David Maness reported that there has been no response yet from the letters sent to area schools offering educational programs in astronomy for a fee.

Ronnie Hawes has been asked to teach two programs for the Arts Council at the Community Arts Center on May 11th and 14th. This will be announced in the local paper.

Alan and Ronnie will give a presentation at Trask on March 16th.

Ronnie plans to start teaching basics to members at our next club viewing session which will be held April 16th. (Location to be announced later.)

Several members have signed up for the Messier Program. Ronnie plans to start at the next club viewing session.

The CFAC is planning a trip to the Morehead Planetarium on March 11th or the 18th.

The next public viewing session will be held on April 9th  
(Continues on page 2.)

## Meeting Minutes from March.

March 6, 1988

Alan Hilburn called the business meeting of the Cape Fear Astronomy Club to order at 6:10 PM. Paul Petty called roll there were 25 members present. Barbara McGowan read the minutes from the February meeting. Ronnie Hawes gave the Treasurers report.

David Maness reported sending \$100 from our treasury to a company to obtain copies of their observatory blueprints. This

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## (Meeting Minutes - continued from page 1.)

weather permitting.

The next meeting will be held on April 10th as the first Sunday in April is Easter. The business meeting will begin at 7:00PM, and the general meeting will begin at 8:00PM. This is a return to the summer hours for meeting times.

The dates for the 1988 Southern Star are April 22-24 at Wild Acres, NC. The cost for the 2 nights and 5 meals is \$85.

Astronomy day for 1988 is April 23rd. Because of the conflict with the Southern Star we will observe it on May 7th and 8th at Independence Mall. We will make plans for this at a later meeting.

Alan and Paul will again store items being donated for our Yard Sale planned for May 21st or May 28th if it rains. Please consider cleaning out attics, closets, garages, etc. Money made from this sale will go toward general club expenses.

The Sky Calendar idea for the Star News has been scrapped because of size limitations. Ben Steelman will write an article on the club sometime in the future.

The general meeting started at 7:20PM. Sam Bissette gave a slide presentation on radio astronomy. This included pictures he had taken on his visits to both the Green Bank, WV radio observatory and to the "Very Large Array" in New Mexico.

- Barbara McGowan

## Catalog Available

I have just received a new catalog of books and other printed material available from the Government Printing Office. The subjects covered in this catalog include: Astronomy and Astrophysics; Space, Rockets, and Satellites; NASA Educational Publications; and NASA Scientific and Technical Publications. Prices range from \$1.00 to \$60.00.

If anyone would like to look at this catalog please contact me. I plan to have this catalog available for anyone who is interested at the next meeting.

- Tom Jacobs

## Attention Candy Sellers

If you have unsold candy David Maness requests that you return what ever candy you have left to him by or at the April 10th meeting. We have received permission from the operators of "The Wilmington Market Place" to use space inside the mall for fund raising. The current intention is to use the time and space to sell of the last of our candy. We must know how much candy remains before beginning this sales effort on April the 16th in case we need to acquire more candy.

Also anyone who has not turned in the money they have from selling candy should get this money to David as soon as possible. David needs this money so that he can complete the book-keeping work his is doing on the candy sales. As well as pay for the candy.

Finally, please remember that all money from candy sales are placed in the observatory fund.

## These Books Are Available for You.

The following is a list of the titles that are available to club members from the club librarian. Any club member may borrow from the club's collection of books. The member is requested to return any borrowed library book at the following general club meeting so that others may share in these donations to the club. If you are interested in any of these books please contact the club librarian Barbara McGowan.

### Title

### Author

#### Non-Fiction

To the Edge of the Universe	Kevin Krisciunas
Space	Ian Ridpath
From the Earth to the Universe	Jay M. Pasachoff
Exploration of the Universe	Abell - Morrison - Wolff
The Star Guide	Beyer
Astronomy with a Small telescope	James Muirden
Astronomy with your Personal Computer	Peter Duffett-Smith
How to use an Astronomical Telescope	James Muirden
A Field Guide to the Stars and Planets	Donald Manzel
Astrophotography for the Amateur	Michael Covington
Astronomy 10th Edition	Fredrick - Baker
The Second Creation	Crease - Mann
Challenger: A Major Malfunction	Malcolm McConnell
In the Presence of the Creator	Gale E. Christianson
Cosmos	Carl Sagan

#### Fiction

### Contact

Carl Sagan



## Lectures Available on Video Tape

The lectures sponsored by the Physics department of UNC-W provides both some good news and some bad news.

### First The Bad News

Those of you who could not make it to the astronomy lectures that were held March 17th and 18th on the university campus miss two very fine presentations. That the University can attract such a high quality speaker into the area provides us with an excellent opportunity to learn more about astronomy from the people who are working on the leading edge of this science.

### Now The Good News

Both of these lectures were video taped. You can borrow a copy of either lecture on VHS format video tape from the club. If you would like to borrow the clubs copy of this material contact Paul Petty.

## Other Video Taped Programs Available

Television program on the following astronomical topics are available from the club library. All of these programs are on a single VHS tape. These programs run just short of 30 minutes each. If you would like to borrow this tape please contact Barbara McGowan or Paul Petty.

- Solar System Debris
- The Solar Image
- Voyager - Encounter with Saturn
- Uranus, Neptune, Pluto
- Binary Stars
- The Milky Way - Discovered
- The Milky Way - Structure
- Extraterrestrial Communication
- Relativity
- Supernovae and Pulsars
- Black Holes
- The Expanding Universe
- The Big Bang

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## What are the Messier Objects?

With all of the talk within the club about Messier or "M" object and the Messier program that Ronnie Hawes is running I think that it might be time to review just what the Messier objects really are. The starting place must be with the French astronomer Charles Messier who lived between 1730 and 1817.

Messier spent a great deal of his observing time searching the sky for comets. One of the problems for a comet searcher is that there are many objects in the sky that appear fuzzy like a comet thru a telescope but are at stellar distances. These objects often resulted in false comet discoveries by observers who were not aware of these known comet like objects.

As Messier searched the sky when he found a new comet like object he would plot its position in his sky atlas. This allowed him to check when he saw a fuzzy object if it was one of these non-comet object that he had already found.

In 1771 Messier published his first list or catalogue from the information in his atlas. This first list contained 45 of these comet like objects which Messier had found. A second list was published in 1781 that contained 23 additional objects. Messier published his third and final list in 1784 containing 35 more objects. A colleague of Messier named Pierre Mechain published the location of 6 additional objects bring the total number up to 109.

The "M" or Messier objects are these 109 listed objects in the Messier catalogue. The number after the "M" is from the order in which Messier listed the objects in his catalogue. M1 was the first object to be listed in Messier's catalogue. Object M51 was the fifty-first to be listed in Messier's catalogue.

Messier found 103 of the total of 109 object in the Messier catalogue. However, three of the 109 objects do not exist being mistakes made by Messier. M102 was an accidental repetition of M101. M40 is a double star system. There is no object located at the position given by Messier for M91 and this remains a mystery as to what Messier was trying to record.

This leaves a total of 106 objects to observe in the sky. The Messier objects can be founded all around the sky. At least 20 objects will be visible on any night through out the year. All of the Messier objects are faint. Only a few of the objects are true naked eye objects. However, all can be seen through amateur telescopes. Most sky atlases used by amateur astronomers will chart the location of the Messier objects.

I hope that this has answered any questions you may have about the Messier objects. If you do have questions please don't be afraid to ask.

- Tom Jacobs



# Sky Calendar for April 1988

(All times are Given in UT to convert to EST subtract 5 hours; for EDT subtract 4 hours.)

1st

----- Tiros 1 launched on this date in 1960. It becomes the first Earth orbiting weather satellite.

2ed

9:21 Full Moon. Called the Grass or Egg Moon.

3rd

7:00 Daylight Savings Time Begins. Set your clock forward 1 hour to EDT.

7:00 Spica passes 0.7° north of the Moon.

8:00 Venus at greatest eastern elongation 46°. Magnitude is -4.4

----- The Soviet Luna 10 becomes the first space probe in Lunar orbit on this date in 1966.

4th

14:00 Mercury at it's greatest southern latitude of -7°.

19:00 Uranus Stationary in right ascension begins retrograde (westward) motion.

----- Kappa Serpentid Meteors. Radiant is right ascension 15:20; declination +18°; ZHR = 1; velocity 45 km/sec.

6th

20:00 Antares passes 0.5° north of the Moon.

----- The first commercial communications satellite Intelsat 1 is placed in geosynchronous orbit on this day in 1965.

7th

----- Delta Draconid Meteors. Radiant is right ascension 18:45; declination +68°; ZHR = 1; velocity 27 km/sec.

8th

10:00 Uranus passes 5° north of the Moon.

13:00 Saturn passes 6° north of the Moon.

9th

1:00 Neptune passes 6° north of the Moon

19:21 Moon at Last Quarter.

10th

15:00 Mars passes 3° north of the Moon.

11th

2:00 Saturn stationary in right ascension begins retrograde (westward) motion.

12:00 Neptune stationary in right ascension begins retrograde (westward) motion.

12th

----- Virginid Meteors.

----- Cosmonaut Yuri Gagarin becomes the first man to orbit the Earth on this date in 1961.

13th

23:00 Moon at perigee. Distance is 57.1 Earth radii.

----- A tank on board Apollo 13 ruptures en-route to the Moon on this date in 1970.

14th

----- Shuttle Columbia lands safely after a 2 day orbital test

flight. This completed the first space shuttle mission in 1981.

9:00 Venus at it's greatest northern latitude of 3.4°.

15th

8:00 Equation of time equals zero.

14:00 Venus 10° north of Aldebaran magnitudes -4.4 and 0.9.

16th

12:00 New Moon. Lunation number 808

17th

----- Sigma Leonids Meteor radiant is right ascension 13:00; declination -5°; Zhr = 1; velocity 20 km/sec.

18th

12:00 The Sun enters the constellation of Aries.

20th

0:00 Venus passes 1° south of the Moon .

15:00 Mercury at superior conjunction with the Sun enters the evening sky

21st

----- Lyrids Meteors radiant is right ascension 18:08; declination +32°; ZHR 10 to 15; velocity 47 km/sec. Parent body is thought to be Comet Thatcher last seen in 1861 with a 415 year period. Currently the earliest recorded of all major showers by the Chinese in 687 B.C. The ZHR was observed as 96 in 1803 and 1922. In 1981 and 1982 peak ZHR rates of 75 were observed with burst of several minutes of 250. Best times to observe this years shower will be in the predawn hours of the 21st and 22ed. The peak for this year's shower should be at 19:00 UT today.

23rd

15:00 Vesta passes .9° north of the Moon

15:00 Mercury at ascending node.

22:23 Moon at Last Quarter.

----- Pi Puppids meteor radiant is right ascension 7:48; declination -45°; ZHR = 23. Parent body is comet Grigg-Skjellerup which passed perihelion last year. This maybe a good shower this year but you will have to observe from a location with a low and dark southern horizon because of the location of the radiant.

25th

19:00 Moon at apogee.

----- Mu Virginids meteor radiant is right ascension 14:44; declination -5°; ZHR = 1; velocity 29 km/sec.

28th

0:00 Moon at descending node.

6:00 Mercury at perihelion.

----- Alpha Bootids meteor radiant 14:30; declination +19°; ZHR = 1; velocity 20 km/sec

30th

14:00 Spica passes .7° north of the Moon.



## Upcoming Events in April

### Public Viewing Session

April 9, 1988; 7:30 PM - Fort Fisher State Park.

### Monthly Meeting of the Cape Fear Astronomy Club

April 10, 1988; 7:00 PM - Bryan Auditorium; Morton Hall

### Fund raising sale

April 16, 1988 - The Wilmington Marketplace

### Club Viewing Session

April 16, 1988 - Location to be announced

Deadline for submission for the May Newsletter

April 17, 1988

### Southern Star Astronomical Convention

April 22-24, 1988 - Wildacres Retreat

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