



# CAPE FEAR

# Skies



The  
Monthly  
Newsletter of the  
Cape Fear Astronomy Club

Volume 4 No. 5

Wilmington, NC

May 1989

## May Meeting Announcement

Sunday  
May 7, 1989  
7:00 PM  
Bryan Auditorium  
Morton Hall  
UNC-W Campus

The next meeting of the Cape Fear Astronomy Club will be held on May 7, 1989 in the Bryan Auditorium of Morton Hall on the UNC-W Campus. The Business meeting will begin at 7:00 PM EST.

The general meeting will begin at 8:00 PM.

## Meeting Minutes from April

David Maness, president, called the regular business meeting of the Cape Fear Astronomical Society to order at approximately 7 p.m. EDT April 2, 1989 in Bryan Auditorium, Morton Hall, UNCW. Paul Petty called the roll, fifteen were present. Reading of the minutes from March's meeting was dispensed with.

Ronnie Hawes gave a treasurer's report. The checking account balance at the beginning of April was \$407.18, and March's total expenditures was \$128.79. The observatory fund was at \$22.01.

Martin Best, Observatory Committee chairman, distributed review copies of fund-raising letters composed for businesses and individuals. Both types would be somewhat preliminary in nature, the former not requesting a donation and the latter requesting but not suggesting an amount.

Paul Petty related the boggy access to the Hampstead viewing site. He asked for ideas to provide a few quick hundred dollars to remedy it.

Martin Best noted that he got some pictures of the big sunspot about three or four weeks ago, they would be available at the break.

David Maness reported he recently talked with some Pender County commissioners and they might still donate land. Also they plan to solve the water problem at the Hampstead viewing site.

Paul Petty reminded members of the forthcoming

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# Visiting Astronomer Gives Local Lectures

by Paul D. Walker

Dr. Arthur R. Uppgren, professor of astronomy and director of the Van Vleck Observatory at Wesleyan University, Middletown, Connecticut visited the Cape Fear area April 11 and 12 to speak on astrology and light pollution. The American Astronomical Society and the Physics Department of UNC-Wilmington sponsored the public lectures on campus with several members of the Cape Fear Astronomical Society attending.

The evening of April 11 Dr. Uppgren addressed "Astrology: Science or Pseudo-science". He pointed out that astronomy and astrology have some of the same origins. The stars appear fixed while seven unique objects move: Mercury, Venus, Mars, Jupiter, Saturn, the sun, and the moon. Ptolemy, an Egyptian astronomer and astrologer, developed a complex system in the second century with the earth at the center. The Renaissance brought increasing doubt on the system. In the 16th century Copernicus put the sun at the center. Between the times of Copernicus and Newton, astronomy and astrology finally split off. Astrology has not subjected itself to the scientific method. Precession, a top-like influence on the celestial poles, leads to about a one-sign slip every two thousand years. It is very questionable how gravity from objects other than the sun and moon could influence us at birth. And astrology does not pay attention to the planets' distances which definitely affect their gravitational effect. Dr. Uppgren concluded that astrology is a pseudo-science.

April 12 in the afternoon Dr. Uppgren lectured on "Light Pollution And The Brightness Of The Night Sky". He admitted that much is qualitative in this field, not well measured. The largest visible change to the surface of any planet of our solar system in the last century is the result of light pollution. The problem is mainly with ordinary street lighting. As incandescent lighting has been replaced by halide, mercury, and sodium vapor, which are more efficient, output has gone up. Low-pressure sodium produces a very narrow spectrum, easy for observatories, but not amateurs, to filter. High-pressure sodium is in much greater use than low-pressure. Dr. Uppgren described a visual photometer, an economical portable device consisting of a metered light source, photographic wedge, and a mirror, for measuring sky brightness. Also, looking at a cloud base can yield a quick rough

## (Meeting Minutes - from page 1.)

ing lectures on astrology and light pollution, April 11 and 12 at UNCW by Dr. Arthur R. Uppgren, astronomy professor and observatory director at Wesleyan University, Middletown, Connecticut.

David Maness announced the first star party at the Hampstead viewing site on April 8, weather permitting.

Paul Petty iterated a call for volunteers for Astronomy Day at Independence Mall, specifically May 6 from 6 to 10 p.m..

David Maness showed recently acquired posters from the Astronomical Society of the Pacific to be used for public displays.

John Marshall commended the Space Watch series on The Discovery Channel, resident at Wilmington's Vision Cable channel 35, Friday nights at 10.

The business meeting adjourned at approximately 8.

Sam Bissette delivered the evening's program comprising a comprehensive slide presentation on the planets and their natural satellites.

- Paul D. Walker

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gauge of an area's light distribution. The natural brightness of the night sky at the zenith is comprised of, in order of decreasing contribution: zodiacal light, integrated starlight, air-glow, and diffuse galactic light. He asserted that a solution to light pollution is to direct the lighting where it is needed and to shield it from going elsewhere. There is very little, sometimes no correlation between the use of outdoor lighting and crime. Some studies indicate that migratory birds, which are insect predators, and sea turtles might be greatly affected by light pollution. Paul Petty video-recorded this lecture for the Physics Department and the Cape Fear Astronomical Society.

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## Request for Funds!

Recently the Cape Fear Astronomical Society has experienced financial stress. Remediating the boggy access at the Hampstead viewing site has been a drain on resources. The treasurer just got an electric bill for the site amounting to \$27. Several outstanding receipts have been turned in and settled.

We now have a nice viewing site for the benefit of the society and others. The Executive Board is requesting individual members to donate to the treasury to alleviate our current plight.

-Executive Board

# Sky Calendar for May 1989

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

## Monday: 1st

- 3h Mercury at it's greatest eastern elongation of  $21^\circ$ .  
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Phi Bootids Meteor radiant is right ascension 16:00; declination  $+51^\circ$ ; ZHR = .2; velocity 12-16 km/sec.  
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Alpha Scorpiids Meteor several possible radiants. Watch right ascension 16:32; declination  $-24^\circ$  and 16:04;  $-24^\circ$ . ZHR = 8; velocity 35 km/sec.

## Thursday: 4th

- 5h Moon at perigee. Distance from the Earth is 56.4 Earth-radii.  
7h Pluto in opposition with the Sun; moves into the morning sky. Magnitude = 13.6; distance from the Earth is 28.7 au.  
17h Jupiter passes  $5^\circ$  north of Aldebaran.  
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Eta Aquarids Meteor radiant is right ascension 22:20; declination  $-1^\circ$ ; ZHR = 21; velocity 67 km/sec.  
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Ascension Day

## Friday: 5th

- 11:46 New Moon. Lunation number 821  
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Alan Shepard becomes America's first astronaut in space aboard his Mercury spacecraft Freedom 7 on this date in 1961. His flight was a 15 minute suborbital mission launched by a redstone booster.

## Saturday: 6th

- 22h Mercury passes  $3^\circ$  south of the moon.

## Sunday: 7th

- 7h Jupiter passes  $5^\circ$  south of the Moon.

## Tuesday: 9th

- 1h Mars passes  $3^\circ$  south of the Moon

## Friday: 12th

- 14:19 Moon at first quarter.  
23h Mercury stationary in right ascension.

## Saturday: 13th

- 3h Juno passes  $0.4^\circ$  south of the Moon Occultation.  
6h Regulus passes  $0.4^\circ$  north of the Moon.  
7:00 Venus at ascending node.

## Sunday: 14th

- 17h Vesta stationary in right ascension; begins retrograde motion.  
23:59 Whit Sunday  
23:59 Skylab is placed in orbit on this date in 1973 by the last of the Saturn 5 boosters.

## Tuesday: 16th

- 7h Mercury passes  $0.6^\circ$  north of Venus.  
9h Moon at apogee. Distance from the Earth is 63.5 Earth-radii.

## Thursday: 18th

- 18:58 Mercury at descending node.

## Friday: 19th

- 19h Venus passes  $6^\circ$  north of Aldebaran.

## Saturday: 20th

- 18:16 Full Moon called the "planting" or "milk" moon.

## Sunday: 21th

- 13h Antares passes  $0.4^\circ$  north of the Moon.  
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Trinity Sunday

## Tuesday: 23th

- 4h Venus passes  $0.8^\circ$  north of Jupiter.  
12h Uranus passes  $4^\circ$  north of the Moon.  
22h Mercury in inferior conjunction with the Sun; moves into the morning sky.  
22h Mercury in inferior conjunction with the Sun; moves into the morning sky.

## Wednesday: 24th

- 1h Neptune passes  $5^\circ$  north of the Moon.  
4h Saturn passes  $4^\circ$  north of the Moon.

## Sunday: 28th

- 4:01 Moon at last quarter.

## Monday: 29th

- Mercury at aphelion. Magnitude 4.2; distance from Earth 0.56 au.

## Tuesday: 30th

- 6h Pallas passes  $0.7^\circ$  south of the Moon. Occultation.

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## Astronomy Day Display

The Cape Fear Astronomical Society will have it's Astronomy Day display at the Independence Mall on Saturday May 6th and also on Sunday May 7th.

We are still looking for volunteers to help man our inside display and the solar projection display out in the parking lot. If you could be present for even a couple of hours on either day this would greatly reduce the burden on those people who have already volunteered. If we can not get a better turnout of the membership we may find ourself canceling the solar projection display.

Please contact Paul Petty or any officer if there is a time when you can be present.

# Upcoming Events in May 1989

## Astronomy Day Display

Saturday May 6, 1989; 9:30am till 10:00pm - Independence Mall

Sunday May 7, 1989; 9:30am until 5:00pm - Independence Mall

## Monthly Meeting of the Cape Fear Astronomy Club

Sunday May 7, 1989; 7:00 PM - Bryan Auditorium; Morton Hall; UNC-W

## Public Viewing Session

May 13, 1989; 7:30pm until "?" - Carolina Beach State Park.

## Deadline for the June Newsletter

May 19, 1989

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Tom Jacobs - Editor

*c/o Cape Fear Skies*

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