

CAPE FEAR



Skies

*The
Monthly
Newsletter of the
Cape Fear Astronomical Society*

Volume 5 No. 11

Wilmington, NC

November 1990

November Meeting Announcement

Sunday
November 4, 1990
7:00 PM
Bryan Auditorium
Morton Hall
UNCW Campus

The next meeting of the Cape Fear Astronomical Society will be held on Sunday November 4, 1990 in the Bryan Auditorium of Morton Hall on the UNCW Campus. The Business meeting will begin at 7:00pm EST.

The general meeting will begin at 7:30pm. The topic for this month's general meeting will be a program on the constellations of winter presented by society members Martin Best; Ronnie Hawes; and Alan Hilburn.

grams for the rest of this year and next.

Tom Jacobs informed us about the program that a few of the society members are planning to give at Myrtle Grove School's Young Astronaut Club all night outing on Friday, October 19th. Also Tom said that there are two new comets in the sky. He also gave the society the latest news of the Hubble Space Telescope and the Ulysses solar probe.

In the treasurer's report, Wayne Teachey said we have \$250.98 in the checking account and \$93.52 in the observatory fund.

Bob Melvin, who attended our meeting, said among other things, that we could write a letter to the observatory in Chapel Hill and suggest ideas that may help out in various areas at the observatory and maybe, just maybe, have some access to the 24 inch telescope. Bob said he will do all he can to help out and will keep us informed.

After a break, society member Paul Walker gave a fine program on the planet Saturn and its moons using slides from the Voyager spacecraft and some he made himself.

There were 12 members present.

- Ronnie Hawes

Meeting Minutes from October

Sunday, October 7, 1990

The meeting of the Cape Fear Astronomical Society was called to order at 7:05pm.

Ronnie Hawes shared with the membership the 1990-1991 Morehead Planetarium schedule by reading the names of the pro-

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Astronomical League Update

[A summary of the minutes from the Astronomical Leagues annual business and council meetings.]

The following actions were taken on old business items at the council meeting:

Regional Assistance: The by-laws of the league related to financial assistance to the A. L. regions were changed. These changes will allow more flexible requests from the regions. Also the Executive Committee will be able to respond to requests quicker.

Comet Rapid Announcement Service: The Astronomical League will be making a \$100 annual donation in support of CRAS.

The following actions were taken on new business items at the council meeting:

1991 Convention: The society in the North East Region that had offered to host the 1991 Convention has had to withdraw the offer. A search is on to find a new host for the convention. It is hoped that a new host will be found in time to announce the new location in the November Reflector.

Account Signatures: The by-laws of the league were changed to require two signatures on all accounts. This is to insure access to the funds in the event of the incapacity of one of the authorized individuals.

Riverfest 90

I would like to thank the members who helped out at the Riverfest on the weekend of October 6th and 7th: Martin Best; Christine Densmore; Doug Greene; Ronnie Hawes; Alan Hilburn; Page Hilburn; Tom Jacobs; John Marshall; Jim Picklesimer; Mary Sljaka; Wayne Teachey; and Paul Walker.

The donation of \$100 made by the Riverfest committee certainly help our treasury. We maybe asked to return to Riverfest next year.

- Ronnie Hawes

Welcome New Members

Please extend a warm "clear skies" welcome to the newest members of the Cape Fear Astronomical Society. Our newest members, all from Wilmington, include: Christine Densmore; Ben Steelman; Mike Mitwol and his daughter Aliceson.

Nominations for 1991 Society Officers

The days have become crisp. The nights are becoming clear. The hazy skies of summer are gone. We have reached the fall of another year.

As the new year draws closer it is time once again to call for nominations for society officers for the calendar year 1991.

At the January meeting we will elect someone to fill each of the following society officer positions: President; Vice-President; Assistant Vice-President; Secretary; Treasurer; and Newsletter Editor.

To start the election process a society member must be nominated for one of the society officers. Nominations must be made from the floor during the monthly business meeting. Any one may nominate a member for any office. The person being nominated must be present to accept the nomination.

Nomination for society officers are now open. Nominations will remain open through the end of the December business meeting. Nominations are closed at that time in order to allow for the preparation of ballots.

(Sky Calendar from page 3)

Monday: Nov 26

5:25 Astronomical twilight begins.
6:54 Sunrise.
17:02 Sunset.
18:30 Astronomical twilight ends.
— The first clear images of Mar's moon Phobos are taken by Mariner 9 on this date in 1971.

Tuesday: Nov 27

5:26 Astronomical twilight begins.
6:54 Sunrise.
±16:00 Mars at opposition. Moves into the evening sky.
17:01 Sunset.
18:30 Astronomical twilight ends.

Wednesday: Nov 28

5:27 Astronomical twilight begins.
6:55 Sunrise.
17:01 Sunset.
18:30 Astronomical twilight ends.
— The European-built Spacelab makes it's first orbital flight on this date in 1983 aboard the space shuttle Columbia.

Thursday: Nov 29

5:28 Astronomical twilight begins.
6:56 Sunrise.
17:01 Sunset.
18:30 Astronomical twilight ends.

Friday: Nov 30

5:29 Astronomical twilight begins.
6:57 Sunrise.
±8:00 Jupiter is stationary in right ascension; begins retrograde motion.
17:01 Sunset.
18:30 Astronomical twilight ends.
19:00 Current Julian date is 244 8225.5

Sky Calendar for November 1990

(All times are given in Eastern Time. Times preceded with the "±" symbol are ±30 minutes of the time listed.)

Thursday, Nov 1

5:05 Astronomical twilight begins.
6:30 Sunrise.
±10:00 Venus is in superior conjunction with the sun. Moves into the evening sky.
17:18 Sunset.
18:43 Astronomical twilight ends.

Friday, Nov 2

5:06 Astronomical twilight begins.
6:31 Sunrise.
16:48 **Full Moon** called the "frosty" or "beaver" Moon.
17:17 Sunset.
18:42 Astronomical twilight ends.

Saturday, Nov 3

5:07 Astronomical twilight begins.
6:32 Sunrise.
17:16 Sunset.
±18:00 Moon at perigee. Distance from the Earth is 56.3 Earth-radii.
18:41 Astronomical twilight ends.
Soviet dog "Laika" becomes the first living creature place in orbit on this date in 1957.

Sunday, Nov 4

5:08 Astronomical twilight begins.
6:33 Sunrise.
17:15 Sunset.
18:40 Astronomical twilight ends.
±21:00 Mars passes 3° south of the Moon.

Monday, Nov 5

5:08 Astronomical twilight begins.
6:34 Sunrise.
17:14 Sunset.
18:39 Astronomical twilight ends.
Taurid Meteors south branch. Radiant is located at right ascension 03:32; declination +14°; this is near the Pleiades. ZHR = 12/hr.

Tuesday, Nov 6

5:09 Astronomical twilight begins.
6:35 Sunrise.
17:13 Sunset.
18:39 Astronomical twilight ends.

Wednesday, Nov 7

5:10 Astronomical twilight begins.
6:36 Sunrise.
17:12 Sunset.
18:38 Astronomical twilight ends.

Thursday, Nov 8

5:11 Astronomical twilight begins.
6:37 Sunrise.
17:11 Sunset.
18:37 Astronomical twilight ends.

Friday, Nov 9

±2:00 Jupiter passes 1.6° north of the Moon

5:12 Astronomical twilight begins.
6:38 Sunrise.
8:02 **Moon** at last quarter.
17:11 Sunset.
18:37 Astronomical twilight ends.
Cepheid Meteors - Radiant is located at right ascension 23:30; declination +63°; this is located between Cepheus and Cassiopeia. ZHR = 8 usually much less. First observed in 1969 with 43 meteors in a 15 minute period.
The first successful unmanned test flight of the Saturn 5 moon rocket occurs on this date in 1967.

Saturday, Nov 10

±4:00 Pluto is in conjunction with the Sun; moves into the morning sky.
5:12 Astronomical twilight begins.
6:38 Sunrise.
17:10 Sunset.
18:36 Astronomical twilight ends.

Sunday, Nov 11

5:13 Astronomical twilight begins.
6:39 Sunrise.
17:09 Sunset.
18:35 Astronomical twilight ends.
The crew of Columbia deploys the first of two communications satellites on the first operational mission for the Space Shuttle on this date in 1982.
Veterans Day.

Monday, Nov 12

5:14 Astronomical twilight begins.
6:40 Sunrise.
17:09 Sunset.
18:35 Astronomical twilight ends.
Astronauts Joe Allen and Dale Gardner retrieve the failed Palapa satellite during a space walk from STS 51-A.
Pegasis Meteors - Radiant is located at right ascension 22:54; declination +19°. Slow moving 15km/sec.

Tuesday, Nov 13

±5:00 Mars passes 6° north of Aldebaran.
5:15 Astronomical twilight begins.
6:41 Sunrise.
17:08 Sunset.
18:34 Astronomical twilight ends.
On this day in 1982 the last transmission received from Viking 1 on Mars, after more than 2300 days of operation.
Taurid Meteor North Branch. Radiant is located at right ascension 04:16; declination +22°.

Wednesday, Nov 14

5:16 Astronomical twilight begins.
6:42 Sunrise.
17:07 Sunset.
18:34 Astronomical twilight ends.
Andromedid Meteors - Radiant is located at right ascension 01:40; declination +44°; ZHR = 5 to 15; faint and slow moving 20km/sec; mostly red in color; Some will have orange trains.

Thursday, Nov 15

5:16 Astronomical twilight begins.
6:43 Sunrise.
±15:00 Vesta is in opposition with the Sun. Moves into the evening sky.
17:07 Sunset.
18:33 Astronomical twilight ends.

Friday, Nov 16

5:17 Astronomical twilight begins.
6:44 Sunrise.
17:06 Sunset.
18:33 Astronomical twilight ends.
±22:00 Mercury passes 3° north of Antares

Saturday, Nov 17

4:05 **New Moon**. Lunation number 840
5:18 Astronomical twilight begins.
6:45 Sunrise.
17:05 Sunset.
18:32 Astronomical twilight ends.
Leonid Meteors - Radiant is located at right ascension 10:08; declination +22° (this is in the sickle of Leo); fast moving = 5-20/hr. Many bright mete-

ors; some fireballs; greenish or bluish in color. About half of the meteors will live trains

Sunday, Nov 18

5:19 Astronomical twilight begins.
6:46 Sunrise.
±10:00 Antares passes 0.7° south of the Moon Occultation.
±15:00 Mercury passes 1.7° north of the Moon.
17:05 Sunset.
18:32 Astronomical twilight ends.
Comet P/Johnson at perihelion. Distance from the Sun is 2.31 au.
±22:00 Moon at apogee. Distance from the Earth is 63.7 Earth-radii.

Monday, Nov 19

5:20 Astronomical twilight begins.
6:47 Sunrise.
17:04 Sunset.
18:32 Astronomical twilight ends.
±23:00 Mars at it's closest approach to the Earth.

Tuesday, Nov 20

5:21 Astronomical twilight begins.
6:48 Sunrise.
17:04 Sunset.
±18:00 Uranus passes 1.6° north of the Moon.
18:31 Astronomical twilight ends.
Astronauts Conrad and Bean recover pieces of Surveyor 3 spacecraft to return to Earth on this date in 1969.
Edwin Hubble born this day in 1889

Wednesday, Nov 21

±5:00 Neptune passes 2° north of the Moon.
5:21 Astronomical twilight begins.
6:49 Sunrise.
17:03 Sunset.
18:31 Astronomical twilight ends.
±23:00 Saturn passes 0.6° north of the Moon Occultation.
Monocerotids Meteors. Radiant is located at right ascension 07:15; declination -7°; Fast moving. Had 100 meteors during a 20 minute period in 1985.
The first manned flight on the Montgolfier balloon is made on this date in 1783.

Thursday, Nov 22

5:22 Astronomical twilight begins.
6:50 Sunrise.
17:03 Sunset.
18:31 Astronomical twilight ends.
Comet P/Kearns-Kwee at perihelion. Distance from the Sun is 2.22 au.
Thanksgiving Day.

Friday, Nov 23

5:23 Astronomical twilight begins.
6:51 Sunrise.
17:03 Sunset.
18:30 Astronomical twilight ends.

Saturday, Nov 24

5:24 Astronomical twilight begins.
6:52 Sunrise.
17:02 Sunset.
18:30 Astronomical twilight ends.

Sunday, Nov 25

5:25 Astronomical twilight begins.
6:53 Sunrise.
8:11 **Moon** at first quarter.
17:02 Sunset.
18:30 Astronomical twilight ends.

(Continues on page 2)

Upcoming Events for November 1990

Monthly Meeting of the Cape Fear Astronomical Society
Sunday November 4, 1990; 7:00 PM - Bryan Auditorium; Morton Hall

Group Viewing Session
Saturday November 10, 1990; Dusk until "?" - Hampstead Site

Group Viewing Session
Saturday November 17, 1990; Dusk until "?" - Hampstead Site

Deadline for the December issue of *Cape Fear Skies*. is
November 17, 1990

Cape Fear Skies
110 Linville Dr.
Castle Hayne, NC 28429

Alan Hilburn
929 Arnold Rd.
Wilmington, N.C. 28403

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