CAPE FEAR Skies

The Monthly Newsletter of the Cape Fear Astronomical Society

Volume 5 No. 12 | *Wilmington, NC* | *December 1990*

The December Meeting

Sunday
December 2, 1990
7:00 PM
Bryan Auditorium
Morton Hall
UNCW Campus

The next meeting of the Cape Fear Astronomical Society will be held on Sunday December 2, 1990 in the Bryan Auditorium of Morton Hall on the UNCW Campus. The Business meeting will begin at 7:00 PM EST.

The general meeting will begin at 7:30 PM. The program for this months general meeting will be a slide presentation presented by society member Tom Jacobs. Tom has titled this presentation: An in depth overview of Astronomy in the Tucson Arizona area.

Meeting Minutes from November

November 4, 1990

Alan Hilburn called the meeting of the Cape Fear Astronomical Society to order at 7:05pm. He made an announcement that we were invited by James Hook of the Lumberton Planetarium in Lumberton, NC to a night of stargazing at Jones Lake. Contact Alan for further details.

In our treasury report, Wayne Teachey, stated that we have $148.70 in the checking account and $81.16 in the observatory fund.

Ronnie Hawes thanked all those who helped out at our exhibit at the Wilmington, Marketplace Mall on October 27th and 28th.

Tom Jacobs informed the group that the Magellan spacecraft is shutdown while Venus is on the other side of the Sun; Galileo is closing in on the Earth for it's first of two flybys; the Ulyssis Sun probe is doing fine; and we have lost radio contact with the Pioneer 11, the second spacecraft to leave the solar system. Tom also said that NASA was going to show a program on the Voyager missions over NASA'a select TV channel. Tom has details if you are interested.

Well, it's that time again, time to nominate members for officers next year. The nominations at this time are: President: Ronnie Hawes; Vice–President: Martin Best; Jim Picklesimer; Associate Vice–President: John Marshell; Treasure: Wayne Teachey; Editor: Tom Jacobs; Secretary: No one as of yet. More on elections at the next meeting.

Sam Bissette made a motion that we keep our meetings on Sundays. The group passes the motion overwhelmingly.

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Inside This Issue

Society 1990 Award Nominations

As we reach the end of another year there are two things that members of the Cape Fear Astronomical Society must think about other than the long clear dark skies of winter.

The first item appeared in last months newsletter; the nomination and election of society officers for the upcoming year, 1991.

The second item is the recognition of of those people who have made special contribution to the Cape Fear Astronomical Society or astronomy in general.

Listed below are the different awards that can be given by the Cape Fear Astronomical Society. If there is someone who you think is deserving of one of these awards please contact one of your society officers, before the end of the December general meeting.

In addition to the five awards listed here, the society can also award as many Certificates of Appreciation as the group wishes. The Certificates of Appreciation are are given to anyone in gratitude for that persons contribution to the society or the societies activities.

- The Bob Cook Outstanding Achievement award for Group Activities.
- The Bob Cook Outstanding Achievement award for Astronomical Activities.
- The Cape Fear Astronomical Societies' Special Achievement Award for Group Activities.
- The Cape Fear Astronomical Societies' Special Achievement Award for Astronomical Activities.
- The Cape Fear Astronomical Societies' Halley Award for Out standing Achevement.

(Meeting Minutes — from page 1.)

Sam also inquired about the status of the trash station that may be built near our viewing site. Tom responded by saying tests of the soil on the site indicated that there would be a major expense in site preparation. This preparation cost appears to be so high that The Pender County Commission is looking for other sites that will not require as much preparation.

After a short break, Wayne shared with the society a home built table to be used at the telescope. You can put charts, flashlights, pencils and other things without them rolling off the table because it has guards on all four sides. The legs come off for storage and transport. The table was built by member Paul Petty. If you want one, for a small fee, see Paul.

The main program was on the constellations of autumn. Martin gave a brief history of the constellations; Alan covered the deep sky objects; and Ronnie the stars of the constellations.

There were 14 members and 3 guest present.

– Ronnie Hawes

(Sky Calendar from page 3)

22:16 **Moon** at first quarter.

Tuesday; Dec 25

5:44 Astronomical twilight begins.
7:14 Sunrise.
17:07 Sunset.
18:37 Astronomical twilight ends.
—— Christmas Day.
—— Isaac Newton born this day in 1643.

Wednesday; Dec 26

5:45 Astronomical twilight begins.
7:15 Sunrise.
17:08 Sunset.
18:37 Astronomical twilight ends.

Thursday; Dec 27

5:45 Astronomical twilight begins.
7:15 Sunrise.
17:08 Sunset.
18:38 Astronomical twilight ends.
—— Johannes Kepler born this day in 1571.

Friday; Dec 28

5:46 Astronomical twilight begins.
7:15 Sunrise.
17:09 Sunset.
18:39 Astronomical twilight ends.
—— Comet P/Taylor at perihelion. Distance from the Sun is 1.95 au.
—— Lyncid Meteors. Radiant is located at right ascension 07:15; declination +36°.
±20:00 Mars passes 2° south of the Moon.

Saturday; Dec 29

5:46 Astronomical twilight begins.
7:16 Sunrise.
17:09 Sunset.
18:39 Astronomical twilight ends.

Sunday; Dec 30

5:46 Astronomical twilight begins.
7:16 Sunrise.
17:10 Sunset.
18:40 Astronomical twilight ends.
±19:00 Moon at perigee. Distance from the Earth is 56.2 Earth-radii.

Monday; Dec 31

5:47 Astronomical twilight begins.
7:16 Sunrise.
±11:00 Uranus is in conjunction with the Sun; moves into the morning sky.
13:35 **Full Moon**. The second full Moon for this month.
17:11 Sunset.
18:41 Astronomical twilight ends.
18:59 An extra second will be inserted at the end of this minute.
—— New Years Eve.

Sky Calendar for December 1990

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

Saturday; Dec 1
- 5:29 Astronomical twilight begins.
- 6:58 Sunrise.
- 17:01 Sunset.
- ±18:00 Mars passes 3° south of the Moon.
- 18:30 Astronomical twilight ends.

Sunday; Dec 2
- 2:50 **Full Moon** called the moon before Yule or the Long Night Moon.
- 5:30 Astronomical twilight begins.
- ±6:00 Moon at perigee. Distance from the Earth is 56.0 Earth-radii.
- 6:59 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.
- —— First Sunday in Advent

Monday; Dec 3
- 5:31 Astronomical twilight begins.
- 7:00 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.
- —— US probe Pioneer 10 becomes the first to reach Jupiter in 1973.

Tuesday; Dec 4
- 5:32 Astronomical twilight begins.
- 7:01 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.

Wednesday; Dec 5
- 5:32 Astronomical twilight begins.
- 7:02 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.

Thursday; Dec 6
- ±2:00 Mercury at it's greatest eastern elongation 21°.
- 5:33 Astronomical twilight begins.
- 7:02 Sunrise.
- ±11:00 Jupiter passes 2° north of the Moon.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.

Friday; Dec 7
- 5:34 Astronomical twilight begins.
- 7:03 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.

Saturday; Dec 8
- 5:34 Astronomical twilight begins.
- 7:04 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.
- 21:04 **Moon** at last quarter.

Sunday; Dec 9
- 5:35 Astronomical twilight begins.
- 7:05 Sunrise.
- 17:01 Sunset.
- 18:30 Astronomical twilight ends.
- —— Puppid-Velids Meteors. Radiant is located at right ascension 09:20; declination -45°.

Monday; Dec 10
- ±3:00 Mercury passes 1.3° south of Uranus.
- 5:36 Astronomical twilight begins.
- ±6:00 Juno is in conjunction with the Sun; moves into the morning sky.
- 7:05 Sunrise.
- 17:01 Sunset.
- 18:31 Astronomical twilight ends.
- —— Chi Orionid Meteors. Radiant is located at right ascension 05:36; declination +26°; medium speed 25km/sec; ZHR = 6.
- —— Monocerotid Meteors. Radiant is located at right ascension 06:50; declination +10°; medium speed 42km/sec. Derived from Comet Mellish which last appeared in 1917.

Tuesday; Dec 11
- 5:37 Astronomical twilight begins.
- 7:06 Sunrise.
- 17:01 Sunset.
- 18:31 Astronomical twilight ends.
- —— Sigma Hydrid Meteors. Radiant is located at right ascension 08:32; declination +2°; fast moving 58km/sec; ZHR = 9.

Wednesday; Dec 12
- 5:37 Astronomical twilight begins.
- 7:07 Sunrise.
- 17:01 Sunset.
- 18:31 Astronomical twilight ends.
- —— On this date in 1973 Skylab astronauts stage the first "strike" in space to protest too heavy workloads.

Thursday; Dec 13
- 5:38 Astronomical twilight begins.
- 7:08 Sunrise.
- 17:02 Sunset.
- 18:31 Astronomical twilight ends.

Friday; Dec 14
- 5:39 Astronomical twilight begins.
- 7:08 Sunrise.
- ±13:00 Mercury is stationary in right ascension; resumes direct motion.
- 17:02 Sunset.
- 18:32 Astronomical twilight ends.
- —— Geminid Meteors. Radiant just North and West of Castor in Gemini; right ascension is 7:28; declination +32°; medium speed 35km/sec; ZHR greater than 50. Some fireballs and Bolides. Mostly white and yellow. Best before midnight. Parent body is asteroi
- —— Mariner 2 passes within 21,600 miles of Venus sending back the first close-up images of the surface on this date in 1962.
- —— Tycho Brahe born this day in 1546.

Saturday; Dec 15
- 5:39 Astronomical twilight begins.
- 7:09 Sunrise.
- ±16:00 Antares passes 0.7° south of the Moon Occultation.
- 17:02 Sunset.
- 18:32 Astronomical twilight ends.
- —— The first space rendezvous is accomplished on this date in 1965 by astronauts Wally Schirra and Tom Stafford. They fly their Gemini 6a spacecraft within several feet of the orbiting Gemini 7 spacecraft
- ±23:00 Moon at apogee. Distance from the Earth is 63.7 Earth-radii.

Sunday; Dec 16
- 5:40 Astronomical twilight begins.
- 7:10 Sunrise.
- 17:03 Sunset.
- 18:32 Astronomical twilight ends.
- —— Comet P/Wild 2 at perihelion. Distance from the Sun is 1.58 au.
- —— Omicron Piscid Meteors. Radiant is located at right ascension 01:42; declination +9°; slow speed 25km/sec; ZHR = 8.
- 23:22 New **Moon**. Lunation number 841

Monday; Dec 17
- 5:40 Astronomical twilight begins.
- 7:10 Sunrise.
- 17:03 Sunset.
- 18:33 Astronomical twilight ends.
- —— Orvill Wright makes first flight in a heaver than aircraft in 1903.

Tuesday; Dec 18
- 0:00 Mercury passes 0.6° north of the Uranus.
- 5:41 Astronomical twilight begins.
- 7:11 Sunrise.
- ±13:00 Neptune passes 2° north of the Moon.
- 17:03 Sunset.
- ±18:00 Mercury passes 1.4° north of Venus.
- 18:33 Astronomical twilight ends.

Wednesday; Dec 19
- ±5:00 Venus passes 0.6° south of Uranus
- 5:41 Astronomical twilight begins.
- 7:11 Sunrise.
- ±10:00 Saturn passes 0.2° north of the Moon Occultation.
- 17:04 Sunset.
- 18:34 Astronomical twilight ends.

Thursday; Dec 20
- 5:42 Astronomical twilight begins.
- 7:12 Sunrise.
- 17:04 Sunset.
- 18:34 Astronomical twilight ends.
- —— Delta Arietid Meteors. Radiant is located at right ascension 03:35; declination +25°; slow speed 15km/sec.

Friday; Dec 21
- 5:42 Astronomical twilight begins.
- 7:12 Sunrise.
- 17:05 Sunset.
- 18:35 Astronomical twilight ends.
- —— First manned flight to the moon (Apollo 8) is launched from Cape Kennedy on this date in 1968.
- 22:07 Winter Solstices. Sun is at it's greatest southern latitude.

Saturday; Dec 22
- 5:43 Astronomical twilight begins.
- 7:13 Sunrise.
- 17:05 Sunset.
- 18:35 Astronomical twilight ends.
- —— Ursid Meteors. Radiant is located at right ascension 14:28; declination +78°; medium speed 33km/sec; ZHR = 9. Some fireballs mostly faint meteors.
- ±22:00 Venus passes 1.8° south of Neptune

Sunday; Dec 23
- 5:44 Astronomical twilight begins.
- 7:13 Sunrise.
- 17:06 Sunset.
- 18:36 Astronomical twilight ends.

Monday; Dec 24
- ±3:00 Mercury is in inferior conjunction with the Sun; moves into the morning sky.
- 5:44 Astronomical twilight begins.
- 7:14 Sunrise.
- 17:06 Sunset.
- 18:36 Astronomical twilight ends.
- —— Astronauts Frank Borman; Jim Lovell and Bill Anders become the first men to travel to the Moon on this date in 1968.
- —— The first successful launch of the French Ariane is made on this date in 1979.

(Continues on page 2)

Upcoming Events for December 1990

Monthly Meeting of the Cape Fear Astronomical Society
Sunday December 2, 1990; 7:00 PM - Bryan Auditorium; Morton Hall

Group Viewing Session
Saturday December 8, 1990; Dusk until "?" - Hampstead Site

Public Viewing Session
Saturday December 15, 1990; 7:30pm until 9:30pm - NC Aquarium at Fort Fisher

Deadline for the next issue of *Cape Fear Skies.* is
December 15, 1990

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

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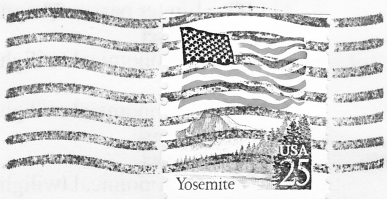

Alan Hilburn
929 Arnold Rd.
Wilmington, N.C. 28403