



CAPE FEAR *Skies*

A MONTHLY NEWSLETTER
OF THE
CAPE FEAR ASTRONOMY CLUB

VOLUME 2, No. 8

AUGUST 1987

MEMBERS:

OUR NEXT MEETING WILL BE ON AUGUST 2, 7:30 PM AT MORTON HALL.

FOR THOSE OF YOU THAT MISSED THE PUBLIC VIEWING SESSION HELD ON SATURDAY, JULY THE 15th, IT WAS A GREAT SUCCESS. WE WOULD LIKE TO THANK PHOEBE WAHAB, PARK RANGER AT CAROLINA BEACH STATE PARK FOR INVITING US TO COME DOWN AND USE THEIR FACILITIES. THE SKIES WERE DARK, AND VIEWING WAS AT ITS BEST. ALSO, THANKS TO THE CLUB MEMBERS THAT BROUGHT THEIR TELESCOPES, WE HAD 7 SET UP INCLUDING THE CLUB'S SCOPE, AND HELPED OUT WITH ANSWERING QUESTIONS AND SO ON.

AS I MENTIONED, WE HAD 7 TELESCOPES SET UP FOR THE EVENT, MOST OF WHICH WERE TRAINED IN ON SATURN FOR PUBLIC VIEWING. IN THE 3 AND A HALF HOURS THAT WE WERE THERE, IT WAS ESTIMATED THAT OVER 800 PEOPLE CAME TO VIEW SATURN AND OTHER VARIOUS OBJECTS. WE ALSO HAD A CHANCE TO SEE SEVERAL METEORITES, ONE OF WHICH WAS VERY BRIGHT AND LEFT A TRAIL THAT COVERED ABOUT HALF THE SKY.

AFTER THE PUBLIC SESSION WAS OVER, THE MEMBERS STILL AROUND GOT TO LOOK AT SEVERAL OTHER OBJECTS THAT WE DIDN'T HAVE TIME TO LOOK FOR EARLIER. WE OBSERVED URANUS, M51, THE RING NEBULA, M22, M13, M8, AND M20, JUST TO MENTION A FEW. HAD WE HAD MORE TIME, WE WOULD HAVE PROBABLY STAYED MUCH LATER.

ALL IN ALL, THE SKIES WERE CLEAR, THE WEATHER WAS COOL, THE BUGS WEREN'T TOO BAD, THINGS WENT SMOOTHLY, AND EVERYONE ENJOYED THEMSELVES. WE HOPE TO HAVE ANOTHER EVENT SOON.

WE STILL HAVE TEE-SHIRTS AVAILABLE. PLEASE CONTACT PAUL FOR MORE INFORMATION.

THERE WILL BE A SHORT FILM AT THIS MEETING; "THE UNIVERSE OUTSIDE THE SOLAR SYSTEM." AND CONRAD WILL GIVE A TALK ON ASTROPHOTOGRAPHY.

THE AUGUST SKY CALENDER

- 2nd MOON AT FIRST QUARTER 3:24 PM EDT
- 5th MOON PASSES 6 DEGREES SOUTH OF SATURN
MOON PASSES 0.7 DEGREES SOUTH OF ASTERIOD CERES
MOON PASSES 5 DEGREES SOUTH OF URANUS
- 6th MOON PASSES 6 DEGREES SOUTH OF NEPTUNE
- 9th FULL MOON 6:17 AM EDT
- 13th PERSEID METEORS
ASTEROID FLORA AT OPPOSITION
- 14th MOON PASSES 4 DEGREES NORTH OF JUPITER
- 16th MOON AT LAST QUARTER 4:25 AM EDT
- 19th SATURN STATIONARY. RESUMES EASTWARD MOTION. STATIONARY
MOMENT IN LONGITUDE, 8 UT
- 20th JUPITER STATIONARY. RESUMES RETROGRADE MOTION. STATIONARY
MOMENT IN LONGITUDE IS 8 UT
- 21st MOON AT APOGEE.
- 23rd VENUS AT SUPERIOR CONJUNCTION. MOVES INTO THE EVENING SKY
MARS FURTHEST FROM THE EARTH
ASTERIOD JUNO AT OPPOSITION
- 24th NEW MOON AT 7:59 AM EDT
- 28th MOON PASSES 0.2 DEGREES NORTH OF SPICA. OCCULTATION, VISIBLE
IN SOUTHERN NORTH AMERICA.

AUGUST IS THE BEST TIME FOR OBSERVING THE ZODIACAL LIGHT. IT
USUALLY OCCURS 1 TO 2 HOURS BEFORE DAWN AND IS SOMETIMES CALLED
"FALSE DAWN" BECAUSE IT IS MISTAKEN FOR THE GLOW OF DAWN IN THE SKY.

ORIGINS OF THE CONSTELLATIONS

URSA MAJOR THE GREAT BEAR - ZEUS FELL IN LOVE WITH CALLISTO, DAUGHTER OF LYCAON. TOGETHER THEY HAD A CHILD, ARCAS. CALLISTO WAS CHANGED INTO A BEAR BY ONE OF THE GODS, SOME SAY IT WAS ARTEMIS, WITH WHOM CALLISTO HAD FORMELY BEEN COMPANIONS. OTHERS SAY THAT ZEUS HIMSELF PLACED HER THERE TO PROTECT HER FROM HERA, HIS JEALOUS WIFE.

URSA MINOR THE LESSER BEAR - WHEN ARCAS HAD GROWN TO MANHOOD, HE WAS HUNTING IN THE FOREST AND WAS ABOUT TO SHOOT A BEAR, UNAWARE THAT IS WAS HIS MOTHER. TO PROTECT CALLISTO, ZEUS CHANGED ARCAS INTO A BEAR AND CARRIED BOTH OF THEM OFF TO THE HEAVENS. ANGERED BY THE HONOR BESTOWED UPON CALLISTO AND HER SON BY ZEUS, HERA, HIS WIFE, CONVINCED POSEIDON NOT TO ALLOW THE BEARS TO BATHE IN THE SEA. FOR THIS REASON URSA MAJOR AND URSA MINOR ARE CIRCUMPOLAR CONSTELLATIONS, NEVER SINKING BELOW THE HORIZON

NEXT MONTH, I WILL START ANOTHER SERIES OF CONSTELLATIONS THAT HAVE BEEN CATALOGED SINCE 1600. THESE WILL INCLUDE MANY CONSTELLATIONS THAT ARE NAMED FOR MACHINES. URSA MINOR ENDS THE SERIES OF CONSTELLATIONS THAT WERE FIRST CATALOGED BY PTOLEMY. IT IS INTERESTING TO NOTE THAT MANY OF THESE NEWER CONSTELLATIONS ARE BELOW THE EQUATOR AND NOT VISIBLE BY NORTHERN OBSERVERS. THIS INDICATES WHEN MAN STARTED TO VENTURE OUT BEYOND ALL KNOWN TRAVEL ROUTES AND BEGAN TO OBSERVE PREVOIULSY UNKNOWN AREAS OF THE SKY.

OBSERVING THE PLANETS

MERCURY

MERCURY, THE CLOSEST PLANET TO THE SUN, IS LESS THAN HALF THE SIZE OF THE EARTH, HAS NO MOONS, NO ATMOSPHERE AND HAS AN AVERAGE MIDDAY TEMPRATURE OF OVER 750 DEGREES FARENHEIT.

FROM EARTH WE CAN OBSERVE THE PHASES OF THIS SMALL PLANET BUT EVEN THE LARGEST TELESCOPE FAILS TO REVEAL ANY DETAIL OF THE SURFACE. THE ONLY DATA ON SURFACE FEATURES CAME FROM THE MARINER 10 SPACECRAFT WHICH FLEW CLOSE TO MERCURY 3 TIMES IN 1974 AND 1975. THE PICTURES REVEALED A SURFACE MUCH LIKE OUR MOON. THE CRATERS ARE FLATTER AND HAVE THINNER RIMS THAN ON OUR MOON AND MOST ASTRONOMERS SPECULATE THAT IT IS BECAUSE OF THE INTENSE GRAVITY FELT BY THE PLANET.

OCCASIONALLY, THE DISK OF MERCURY WILL "TRANSIT" THE SUN. APPEARING AS A BLACK DOT CROSSING THE DIK OF THE SUN. THE LAST, MOST RECENT TRANSIT, WAS NOVEMBER 13, 1986. THE NEXT FULL TRANSIT WILL BE NOVEMBER 6, 1993. IT WILL BE VISIBLE FROM EUROPE BUT NOT NORTH AMERICA. THE NEXT TRANSIT VISIBLE FROM NORTH AMERICA WILL BE ON MAY 7, 2003

MERCURY NEVER APPEARS FAR FROM THE SUN IN THE SKY AND IS VISIBLE ONLY NEAR SUNRISE OR SUNSET.

PROPERTIES OF MERCURY: EQUATORIAL RADIUS = 2,439 km
SIDEREAL ROTATION = 58.646 (earth days)
APPARENT VISUAL MAG. AT 1982 OPPOSITION - -1.8

MERCURY WILL BE VISIBLE DURING THE FIRST WEEK OF AUGUST IN THE EARLY MORNING NORTHEASTERN SKY. AFTER THE 10th IT WILL SINK BELOW THE HORIZON AND REMAIN HIDDEN UNTIL THE MIDDLE OF SEPTEMBER.



CAPE FEAR
ASTRONOMY CLUB

CAPE FEAR ASTRONOMY CLUB
120 Coventry Rd.
Wilmington, N.C. 28401

July 27, 1987

Dear Club Member,

Greetings from your President!

I would like to welcome all our New Members to the CAPE FEAR ASTRONOMY CLUB and would like to thank all our current Membership for their support thru this year.

If there is any thing that the Club Staff or I can do to help you with PLEASE CALL one of us. We will try to keep you more informed about club business in the future.

At this time I would like to thank everyone for your support during our Astronomy Day at Mall back in May and all our Observations including our last Observation at N.C. State Park. This was a great success! It was said that up to 800 persons came out to view Saturn.

Thank You from the bottom of my heart for your twenty dollar contributions that you all made so we could have a club scope. This is a first step that shows that we are for Real and we are growing into a Major Club.

Our 1987 Schedule will pick up on our basics of Astronomy and Telescope use. Also basic astro-photography.

We hope to have at least four nights a month for club Observing parties. I would like to hear from you about a summer picnic as soon as possible.

Now in our thoughts some where in the back of our minds we vision a Club Observatory !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

In closing I would like also to say that WE have accomplish alot at this point of the year, we are getting our act together and getting more professional in what we do.

I would like to hear from you concerning any suggestions and/or comments about or of our club.

ALAN P. HILBURN

President

120 Coventry Road
Wilmington N.C. 28405
Phone 791-7058

Sincerely, and Clear Skies

Alan P. Hilburn *