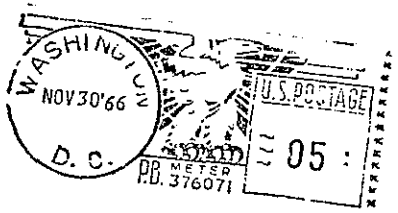
MD-DC JUNIORS

The MD-DC Juniors met on November 12 for a business meeting and general discussion of astronomy. We decided to have, depending on the weather, a combination star party and observing session on Saturday, December 17 at 8:00 P.M. The Star Party will be held in Kensington at the Recreation Center field on Plyers Mill Road at Maybrook Avenue (off Georgia Avenue). It will be open to the public and all telescopes are welcome. For information call Mark Goldberg at 933-0823 or Ray Finkleman at 933-0945.

We also decided to challenge the Prince George's Juniors to an inter-region astronomy quiz. They declined but counter suggested an astro-photography contest. This will be discussed at the next meeting.

We will be fortunate to hear Dr. Hobbs speak at the December 10 meeting which will be held as usual at 2:00 P.M. in the Chevy Chase Library.

Mark Goldberg
MD-DC Junior Editor



Library,
Naval Observatory
Washington 25, D.C.

1
579

☆ STAR DUST

December 1966 Vol. XXIV, No. 4

DR. WORLEY OF THE NAVAL OBSERVATORY TO SPEAK

The guest lecturer for the NCA December meeting will be Dr. Charles E. Worley of the U.S. Naval Observatory, Washington, D.C. He will speak on " Stellar Evolution and Binary Stars ",

Dr. Worley was born in Iowa in 1935 and first became interested in astronomy when he was about 9 years old. As an amateur, his first observational work was the plotting and recording of more than 10,000 meteors for the American Meteor Society.

He attended Swarthmore College, where he took part in the parallax program, then went to the Lick Observatory where he was engaged in photoelectric photometry and later began to observe double stars. He obtained a degree at San Jose State College in 1959, after which he returned to Lick Observatory to continue his research work on binary stars. (Continued on page 2.)

***

CALENDAR

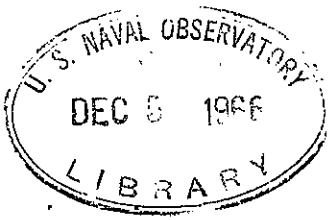
DECEMBER 3 DINNER WITH THE SPEAKER at 6:15 P.M. For further information please call: Mr. Anderson CL6-6324

LECTURE-MEETING at 8:15 P.M.- - Dr. Charles E. Worley speaking on STELLAR EVOLUTION AND BINARY STARS in the Department of Interior Auditorium (D St. between 18th and 19th Sts.) Business meeting after the lecture.

9 ALL NIGHT OBSERVING SESSION-Prince Georges's County Juniors. For details call Sheila Duck: 474-5716

10 MD-DC JUNIORS meeting at 2 P.M. in the Chevy Chase Library, 8005 Conn. Ave. in Chevy Chase, Md. Dr. Robt. W. Hobbs will speak on radio astronomy.

17 MD-DC JUNIORS will conduct a Star Party at 8:00 P.M. in Kensington at the Recreation Center field. See p. 4 for details. (Continued on page 2)



Dr. Worley-Cont'd from p.1.

In 1961 Dr. Worley came to the U. S. Naval Observatory, where he has been engaged in research on stellar distances and motions as well as on binary stars. He is a member of the International Astronomical Union, the American Astronomical Society, and the Rotal Astronomical Society. He is currently serving as Administrative Assistant Director of the Astrometry and Astrophysics Division of the U.S. Naval Observatory.

NOVEMBER LECTURE - - RADIO ASTRONOMY AT NRL

Our November speaker, Dr. Robert W. Hobbs of the Naval Research Laboratory, brought us up to date on NRL's work in radio astronomy while reviewing some of the problems which face scientists in this new field.

Astronomers today observe much more of the electrmagnetic spectrum than was possible before World War II. Rockets and satellites have extended observations into the far ultraviolet and even into the X-ray region, new instruments have opened up the infrared band, and radio astronomy has added many octaves below this.

The resolving power of the radio telescope is considerably poorer than for optical instruments of comparable size. One remedy for this shortcoming is to build larger radio antennas and to use shorter wave lengths, but paradoxically the massive parabolic dishes of great area and rigidity required to perform properly at these tiny wave lengths are hard to point accurately enough to match their greater resolving power.

Celestial radio noise is extremely weak - in fact, 1000 to 10,000 times weaker than the noise the receiver itself creates. However, rapidly switching the antenna on and off one can differentiate the desired signal from the receiver noise by a minute but detectable fluctuation in signal exactly in tune with the frequency of the antenna switch.

Astronomers observe planets at radio wavelengths because: 1. radio penetrates planetary clouds and gives information about conditions below them; 2. the frequency of the maximum emission from planets is closer to radio bands than to light wave lengths; 3. for planets the ratio of radiative to reflective energy is greater at radio frequencies; and 4. sources of electromagnetic waves other than thermal emission can be studued by radio. Radio astronomy discovered the 600° K surface temperature of Venus and electrical disturbances in Jupiter's atmosphere.

- Leith Holloway -

Calendar cont from p.1

2,9,16 TELESCOPE MAKING with Hoy Walls at the Chevy Chase Community Center from 7:30 to 10:00 P.M.

2,16 TELESCOPE MAKING with Grady Whitney at McLean H.S. McLean, Virginia.

TELESCOPE MAKING-Bladensburg Class: Mr. Isherwood AP 7-9419.

MEET THE PRESIDENT

John Stolarik was born in 1927 in Long Island City, New York and grew up in Nassau and Rockland Counties of New York State. After graduation from Xavier High School, New York City, in 1945, he enlisted in the U.S. Navy. He served with the fleet as an electronics technician until November 1948.

After his discharge from the Navy John entered St. Peter's College, Jersey City, and remained there for two years when his studies were interrupted by his recall to active duty in the Navy during the Korean War. After serving 18 months in charge of the transmitter station on the U.S. Naval Base in Bermuda he returned to St. Peter's College to continue his studies. He received an A.B. in Physics in 1954.

From 1954 to 1956, he was a graduate student and teaching assistant in the Physics Department at the University of Maryland where he met and married the former Ellen Gregg, who was also a graduate student and teaching assistant in the Physics Department.

In 1956 went to work as a physicist in the Astronomy and Astrophysics Division of the Naval Research Laboratory. He remained there until joining N.A.S.A.-Goddard in 1959 where he is still employed in the Fields and Plasmas Branch of the Space Science Division. He is engaged in magnetic field research and has been associated with the magnetic field experiments on two Vanguard Satellites, Rangers 1 and 2, as well as various sounding rocket programs.

He and his wife Ellen have been NCA members for 10 years and they boast five children, 3 girls and two boys, who hopefully will join the junior ranks in a few years. Besides astronomy, he enjoys photography and amateur radio (K3CLG, ex-W2ZQB,ex-VP9AT) when he can find the time.

PRINCE GEORGE'S JUNIORS

The Prince George's County Juniors held an all-night observing session this past month on the 8th. They went to Morgantown, Md. for the event. The principal objects chosen for observation that evening were the Messier objects and planets.

LEONID METEOR SHOWER

The peak of the Leonid shower occurred after dawn on the East coast on the morning of the 17th. Those who waited out the overcast give estimated meteor counts of 200-250/hour, while those observers in the western United States witnessed a dazzling display with estimat ated counts up to 12,000 / hour. SAO reported that this was the most spectacular shower since 1833.

N.B.

There will be no 5" observing session this month nor a discussion group due to the approaching holidays.