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LUNAR OCCULTATIONS FOR MAY

Date	Star	Mag.	Age	Phase	E. S. T.
3	71 Ori	5.2	4.0	D	7:59.9 P. M.
5	ED / 14° 1850	6.4	6.1	D	9:06.7 P. M.
8	55 Leo	6.0	9.0	D	8:09.0 P. M.
8-9	p3 Leo	6.2	9.2	D	12:25.3 A. M.
17-18	45 Ser	6.0	18.3	R	1:05.5 A. M.

-- A. L. White

OBSERVATIONAL DATA FOR MAY

Mercury reaches inferior conjunction May 5 but may be seen at the end of the month, low in the east just before sunrise. Venus is an evening star but is too close to the sun for easy observation until the end of the month. Mars has moved from Taurus into Gemini, is well down in the west at sunset and sets a few hours later. Jupiter is nearly on the meridian at sunset and is visible almost until dawn. It is stationary in right ascension on the 19th and then resumes eastward motion among the stars. Saturn rises an hour or two after sunset and remains visible for the rest of the night.

The date of maximum intensity for the ETA AQUARID meteor shower is May 4. This shower averages 12 meteors per hour. A total eclipse of the moon will occur on May 13 and its ending will be visible just at or after moonrise on the east coast of North America. The moon will enter the umbra at 3:44.8 and leave at 7:17.0 P. M. (E.S.T.) Total eclipse will begin at 4:51.6 and end at 6:10.2 P. M.

-- A. L. White

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MAY CALENDAR

May 4 "A SEEING COMPENSATOR EMPLOYING TELEVISION TECHNIQUES," John H. Dewitt, Jr. Department of Commerce Auditorium, 8:15 P. M.

May 11 TRIP TO SPITZ LABORATORIES, for details of this event, see the article inside.

May 13 EXPLORING THE SKY, Joint program of the NCA and the National Capital Parks, Ft. Reno Park, 40th and Chesapeake Streets, N.W., 8:00 P. M. Let's have a good turnout for the opening of our season, so everyone come and don't forget your telescopes.

May 18 EXHIBITION OF JUNIOR PROJECTS and awarding of certificates, 7:30 to 8:30 P. M. DISCUSSION GROUP on stellar photography, moderated by Everette Neville. For details, read the story inside. The discussion starts at 8:30 P. M. Both events will be in the Department of Commerce Foyer.

May 19 EXPLORING THE SKY, Joint program of the NCA and the National Capital Parks, Ft. Reno Park, 40th and Chesapeake Streets, N. W., 9:00 P. M.

TELESCOPE MAKING CLASS with Hoy Walls each Monday evening at 7:30 P. M. Chevy Chase Community Center, 5600 block of Connecticut Avenue. Mr. Walls' telephone number is OL 2-5395.

"THE IMAGE CONVERTER" - A subject of considerable interest in the astronomical world today is that of light amplification and also electronic developments which may make it possible to reduce the effects of the ever-present luminosity of the night sky. For the past year Mr. DeWitt, who is a Research Associate at the Arthur J. Dyer Observatory at

Vanderbilt University, has worked with Dr. Carl Seyfort and Dr. Robert Hardie on the development of a light amplifier using the image orthicon tube which will be suitable for taking instantaneous photographs of the planets with the 24" reflector. It has been found possible to steady the images electronically so as to reduce greatly one important effect of atmospheric instability.

Mr. DeWitt is a Fellow of the IRE, a member of the American Physical Society and American Astronomical Society, is President of WSM-Radio and TV in Nashville and is basically an electronics engineer.

--Mrs. John C. Lund

DISCUSSION GROUP - The discussion group on photography will be a series of short expositions by the "experts." Each contributor will bring samples of his or her work and possibly some equipment and be prepared to discuss the photographs, equipment, and techniques.

If you have taken no pictures, don't let that stop you from coming as it should be a good discussion with fine pictures galore. If you would like to be on the panel of "experts", please contact me between May 1 and May 17. My office phone is EM 2-8000, extension 7541, or you can call me at home on JA 7-4130. This is our last discussion of the season so we should do it justice.

--Everette Neville

JUNIORS, ATTENTION - During the past winter a number of the regular adult members of NCA have met with juniors from time to time in various parts of the metropolitan area. These meetings have been held by Ben Adelman, Bob Brown, Leith Holloway, Dana Law, Everette Neville, Abe Robinson, and Morty Schiff. On Saturday May 18 at Commerce Department Auditorium, 7:30 P.M., let's get together for a little Science Fair of astronomy material of any type owned or made by juniors. There will be prizes and there will be fun for everyone. Those interested may stay for the regular discussion group on photography.

--Dana Law

DR. THOMAS GOLD, English astronomer and now Professor of Astronomy at Harvard, gave the annual James Arthur Lecture on the Sun at the Smithsonian Institution on April 10. Dr. Gold, one of the world's foremost authorities on cosmic rays spoke on "Cosmic Rays from the Sun." Cosmic rays, he said, vary so greatly in force that the weakest and the strongest may really be considered different phenomena. This difference might be likened to the relative force of a fly striking an object as compared with a locomotive. Yet the weakest cosmic rays possess an energy of many million electron volts. Dr. Gold described the researches which link certain cosmic ray phenomena with solar activity. Nevertheless, he said, there has been no satisfactory hypothesis to explain the origin of the cosmic rays on the upper energy levels.

NEWS NOTES, ASTRONOMY, INC.

The comet AREND-ROLAND became visible to the naked eye late in April. Two astronomers in Belgium reported receiving radio signals from the comet. If confirmed, this will be the first time radio signals have been received from a comet.

Dr. Gibson Reaves of the Lick Observatory reports finding of "dwarf" universes in the far reaches of space. These dwarfs probably contain only a few million stars. The conclusion that such dwarf universes exist came after a long series of observations of the great cluster of galaxies in the constellation Virgo on the celestial equator.

Among the most interesting of the news reports of the past few months are those regarding the demonstration of the actual existence of the long-postulated "anti-matter" -- that is matter whose atoms consist of negatively charged nuclei and, more recently, the overthrow of parity. The conservation of parity was a law of quantum physics which said that there is no absolute distinction in nature between right and left. Experiments now show that such a distinction exists.

THE TRIP TO SPITZ LABORATORIES IN MAY is now definitely set for the 11th, a convenient date as it is neither too close to Memorial Day nor the Convention, June 8. We have ordered perfect weather and anticipate a most pleasant and rewarding week-end. The program, as outlined in detail in April's STAR DUST, will offer several unique experiences. Armand Spitz has personally invited us to come up to Yorklyn to see his newly completed Air Force planetarium, the largest Spitz instrument ever made, which will not be open to the public here in the East.

We will watch a fine show at the planetarium and also be allowed to go through the shops and see how a planetarium is made and this will certainly be a new and unique experience.

In the evening we plan to visit with an amateur astronomy group in Delaware and since this is a new group, our members might take their own telescopes if possible. It would be nice if we could set up a joint observing session with these astronomers, and they will probably be interested in seeing the different kinds of instruments our members have and hear about the fine optical handiwork that many NCA astronomers have produced by their own ingenuity and elbow-grease.

The next day, Sunday, we expect to visit one of the two beautiful DuPont estates, "Winterthur," or "Longwood Gardens" nearby, and on the way home we will stop at Annapolis or Ft. McHenry to do some historic sight-seeing.

We plan to meet at the Commerce Department Auditorium at 9:00 A. M., to pick up passengers who want rides. Anyone who doesn't have a full car is requested to be on hand and since we are going in private cars, the passengers will gladly share expenses, we are sure. For those that live in Maryland who already have a full load and want to go directly, the route is as follows: Take the Baltimore-Washington Parkway into Baltimore to U.S. 40 going East. Continue on U.S. 40 and just past the Wilmington-Newcastle Airport go under the overpass

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and turn in loop onto State route 41. Go ten miles towards Hockessin, then bear right--before reaching Hockessin - at signs to Yorklyn, two miles. When you get that far "You can't miss it."

This can be either a week-end or a one-day trip. Some people will have to go back the same evening so there will be rides back for those who can't stay overnight. Armand Spitz has offered to arrange a box or buffet lunch for us at the labs as we will be out in the country where only crops and planetaria grow. We expect to be up there and have lunch at 12-12:30 and anyone participating should be there at that time. The deadline for reservations will be May 4th at the business meeting after the lecture. We have figured \$1.50 per person to make a nice lunch, and checks may be sent before that date to yours truly.

The show at the planetarium will begin at 1 P. M. sharp, and we hope everyone will be keenly sharp on the dot, or a minute or two earlier if possible, for once the heavenly progression commences, it - like time - will not be turned back or interrupted. Let's have a wonderful, astronomically fabulous time of it - how could we miss!

Yours truly,
Tove Neville

A TRANSIT OF MERCURY across the sun's disk will occur on May 5. The ingress will be visible generally over North America except in the extreme east, exterior contact occurring at 6:56 P. M., E. S. T. The egress will not be visible from the eastern part of the country.

--A. L. White

NEW MEMBER

*Michael Kolodny, 11408 Monterey Drive, Wheaton,
Maryland.