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Way lies along the northern horizon passing through Auriga, Perseus, Cassiopeia, and Cygnus.

STAR DUST
National Capital Astronomers

LUNAR OCCULTATIONS FOR APRIL

Date	Star	Mag.	Age	Phase	Time (E.S.T.)	P
April 7-8	81 B OPH f	6.3	18.9	R	1:11.0 A. M.	325°

---A. L. White, Astronomy Editor

THE EVENING STAR in March carried a feature story and pictures of Hoy Walls' Telescope Making Class. Every one in NCA should be sure to read this story. It makes us realize anew the grand job Hoy is doing and the tremendous amount of time and energy he devotes to this most widely-known and appreciated NCA activity - telescope making.

FOR NCA MEMBERS who are interested, the publication SPACE JOURNAL, a quarterly, is available for \$2.00 per year. The address is Box 94, Nashville, Tenn. The SPACE JOURNAL is a publication of the Rocket City Astronomical Association, Huntsville, Alabama, of which Dr. Wernher von Braun is president.

NEW MEMBERS

*Bill Dalness, 424 Cedar Hill Road, Falls Church, Va.
JE 3-3238

*Albert George DiCanzio, 2851 So. Buchanan St., Arlington, Va. KI 8-4628

Anthony Hass, 3334 Volta Pl., N. W., Washington 7, D.C.
HU 3-4694

*Mickey Oksner, 814 Patton Drive, Silver Spring, Md.
JU 9-1026

Hallock F. Swift, 3034 P Street, N. W., Washington, D.C.
FE 3-4476

David O. Walkinshaw, 103 S. Hallman St., Fairfax, Va.
CR 3-1710

Jewell Boling, Editor
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APRIL CALENDAR

APRIL 5 (Saturday) - Lecture Series: "SCINTILLATING, SEEING, AND SITE-TESTING," Alfred H. Mikesell, Assistant Director, Equatorial Division, Naval Observatory, 8:15 P.M., Department of Commerce Auditorium, 15th and E Sts., N. W. The public is welcome.

APRIL 12 (Saturday) - Maryland and D. C. Juniors over 12 meet with Leith Holloway at 2:00 P. M., at the Chevy Chase Community Center, 5601 Connecticut Avenue, N.W. Discussion Topic: "CEPHEID VARIABLES." Call Leith for details.

Note: DISCUSSION Group is canceled for April.

APRIL 19 (Friday) - Leave for Morgantown, West Virginia for Middle East Region 1958 Astronomical League Convention. (See story inside).

APRIL 20 (Saturday) - Middle East Region 1958 Astronomical League Convention in Morgantown.

APRIL 25 (Friday) - GROUP OBSERVING at the newly reconditioned NCA 5" refractor, starting at 7:30 P. M. The group will be instructed by Mr. Isherwood.

CONTINUING ACTIVITIES

EACH MONDAY NIGHT, the telescope making class meets with Hoy Walls at 7:30 P. M. at the Chevy Chase Community Center.

EACH WEDNESDAY NIGHT, the Virginia Juniors over 12 meet with Bob Brown at Falls Church High School for discussions of astronomy, optics, and telescope making, at 7:00 P. M.

TWINKLING OF THE STARS is to the unaided eye, the most conspicuous feature of their appearance. Aristotle, therefore, made it an important basis for a theory of the universe. Astronomical seeing, on the other hand, is observable only with telescopes and has been useful only in developing modern theories of meteorological optics.

By using ever larger telescopes, astronomers practically eliminate the effects of scintillation, but become all the more sensitive to those of seeing. Hence, site-testing expeditions assume a major responsibility for future development of astronomy. These expeditions are more glamorous even than eclipse expeditions since they canvas not only the surface but also the stratosphere of the earth.

For the future the observational defects imposed by seeing may be eliminated at the telescope by electronic devices. Scintillation promises usefulness for astronomical research, and site-testing may extend to the moons of Mars.

Mr. Mikesell will tell us more about this at our next monthly lecture on April 5. Interested in telescopes and telescope-making, Mr. Mikesell studied at the University of California in Berkeley. He has been at the U. S. Naval Observatory since 1936, with service in each of the observational departments, Time Service, Transit Circle, and Equatorial Divisions. For the past 10 years he has assisted in observations for Site Testing, Stellar Polarization and Stellar Scintillation.

---Morton Schiff

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If you would care for plans for a transistor device for the purpose of detecting solar flares, see Bob McCracken.

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A FEASIBILITY STUDY is being conducted into the possibility of establishing a Radio Astronomy Section within NCA. Everette Neville, Jose Garcia, and Wilbur Current (not an NCA member) are working on some of the problems involved. The interest of such a Section would be focused on telemetering artificial satellites. Much time has been spent in setting up tracking facilities. There is much which could be done to improve telemetering facilities.

SATELLITE OBSERVING

1957 Beta made a series of morning passes over the Washington area beginning February 7. The 7th, 9th, and 11th were expected to be the only favorable days for observation. Beta was seen in Falls Church on the 9th crossing the meridian at 30° North heading northeastward. It was easily seen with the naked eye and maintained a constant brightness upon this occasion. On the 11th a bright aurora covered nearly half the sky to the north and there were some cirrus clouds. The satellite should have been seen at a greater altitude than on the 9th, but passed by unnoticed.

A new series of morning observations began March 12th. By this time the period had shortened sufficiently so that Beta again made an almost even number of revolutions in 24 hours. Consequently, the same revolution number was watched upon successive days. The satellite was seen at E.P.G. on the 15th crossing the meridian at 35° North, this time headed southeastward. Beta followed the same course the next evening crossing under Polaris and going through the Northern Cross. Venus was close to the moon this morning being a quarter of a degree to the west of the crescent. Beta is expected to be visible for a few more mornings during this series.

OBSERVATIONAL DATA FOR APRIL

Mercury may be seen at the beginning of the month low in the west just after sunset. The planet is in inferior conjunction with the sun on the 16th. Venus is visible low in the east before sunrise and reaches greatest western elongation on the 8th. Mars is in Capricornus and may be seen low in the southeast for a few hours before sunrise. Jupiter is near Spica, is visible all night, and is at opposition on the night of the 16-17th. Saturn is in OPHIUCHUS and rises about midnight. It is stationary in right ascension on the 4th and will then move westward among the stars.

The date of maximum intensity for the LYRID meteor shower is April 21. This shower averages 12 meteors per hour. On the 15th at 11:00 P. M. (E.S.T.) the Milky

COME JOIN US AT THE

ASTRONOMY CONVENTION - MIDDLE EAST REGION OF THE
ASTRONOMICAL LEAGUE.

The convention is Saturday April 19 in Morgantown,
West Virginia and all NCA members are invited. The
program follows. Call Hoy Walls, OL 2-5395 or Dana Law,
OT-4-6835 who will coordinate transportation for those
wanting rides and those having rides.

1958 CONVENTION -- APRIL 19, 1958
MORGANTOWN, WEST VIRGINIA
WEST VIRGINIA UNIVERSITY-PHYSICS BUILDING

PROGRAM

SATURDAY, April 19

A. M.

- 9:00 - 9:45 Registration and setting up exhibits,
Room 252
- 9:45-10:00 Opening session. Welcome by Prof.
Charles Cochran. Room 260.
- 10:00-10:15 Business session, Dana Law, Regional
Chairman
- 10:15-11:00 Regional Society activities, Herbert
Williams, Spitz Laboratories, Yorklyn,
Delaware. Room 260.
- 11:00-11:15 Coffee Break. Group Picture. Room 252.
- 11:15-11:45 League Activities - Mrs. Wilma Cherup,
Pittsburgh, Pa.
- 11:45-12:00 Junior Session I - Ben Adelman, Silver
Spring, Md.

P. M.

- 12:00-12:45 Lunch. University Cafeteria recommended.
- 1:00- 1:15 Junior Session II - Ben Adelman
- 1:15- 2:00 Instruments and Exhibits Session - David
Meisel, Fairmont, W. Va.
- 2:00- 3:30 Observing Session - Jim Mullaney, Carnegie,
Pa.
- 3:30- 3:45 Coffee Break.
- 3:45- 5:00 Space Age - Charles LeRoy, Pittsburgh, Pa.
- 5:00- 5:15 Business Session - Dana Law, Regional
Chairman.
(Continued on next page)

EXPLORER AND VANGUARD RECORDINGS - Using a special
receiver which he himself constructed, Bob Wright has made
tape recordings of both Explorer and Vanguard signals.
Bob McCracken arranged to have these processed by the
Diamond Ordnance Fuse Laboratory. The resulting graphs
will be published in SKY AND TELESCOPE. (STAR DUST would
have published them if we could have gotten a photographer.)
These data include cosmic ray counts, meteoric impacts,
meteoric erosion of the satellite's skin, external skin
temperature, and internal transmitter temperature. STAR
DUST hopes to have a fuller story on this next month.

- 5:15 Tour of Physics Building including underground isotope laboratory - Dr. Charles Thomas, head of Physics Department.
- 6:15 Banquet. Trinity Episcopal Church, 233 Willey Street. \$2.25 per plate. Dr. Nicholas Wagman, Director of the Allegheny Observatory, will present the evening address. Social hour will follow.

EXHIBITS - All exhibits will be set up in Room 252.

HOUSING - There are several motels in the Morgantown area. Also, the Hotel Morgan will be able to take care of all delegates without need for advance registration. Prices start at \$6.50 single, \$8.00 double, rooms with twin beds \$9.00 and up.

TRANSPORTATION - Airline connections with Pittsburgh, and bus service available. No trains. Parking is available in all lots except the University Restricted Areas. Check at Registration desk to see if additional arrangements have been made.

-- David Meisel, Convention Chairman

THESE GET-TOGETHERS with societies from Pennsylvania, Maryland, West Virginia and Delaware are usually a lot of fun. Every NCA member, his family and friends are invited and welcome.

Since Morgantown is about 200 miles from Washington, most of us will probably want to drive up on Friday and return on Sunday. Those of us arriving Friday night will want to get together at the open house at the Planetarium in the Physics Building on the Campus.

There are still some unscheduled spots on the program for additional papers if you are interested in giving one. Whether you participate in the program or not, please plan on coming and joining in the fun.

---Dana Law, Regional Chairman

ADVANCE REGISTRATION FOR April 19 Convention, Physics Building, West Virginia University, Morgantown, West Virginia

Note: Advance registration before April 15, particularly for the dinner, will greatly help the program committee.

To: Mrs. Kathryn B. Hess
Hillcrest
Fairmont, W. Va.

_____ Convention Registrations @ \$1.00
_____ Dinner Reservations @ \$2.25 per plat
Total remittance \$ _____

Name _____

Address _____

Time of arrival _____ Bus _____ Plate _____ Car _____

Make checks payable to Kathryn B. Hess

Tear off

The above is for the convenience of anyone wishing to register in advance. Just clip or tear out the form reproduced above.

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NCA Deadlines for April

Please try to get in articles, etc., by April 15. The Editor would like to go to Morgantown on the weekend of the 19. Late news items which cannot be gotten in sooner, should be in not later than April 21.