

NEW MEMBERS

- George V. Broderick, 1429 Saratoga Avenue, N. E.,
Apt., 863A AD 2-2009
- Abbott W. France, 1118 S. Alfred Street, Alexandria,
Va. KI 8-2609
- David C. Mays, 615 Farragut Place, N. E.,
Washington, D. C. LA 6-6559

Juniors

- Roger Harvey, 517 Valley Lane, Ravenwood, Falls
Church, Va. JE 2-1782
- Steven Hurley, 620 Elmira Street, S. E.,
Washington 20, D. C. JO 2-1780
- James W. McGuire, 1528 North 17th Street,
Arlington, Va. JA 8-0243
- Edward J. Moulis, Jr., 608 Woodley Place, Falls
Church, Va. JE 2-6676

LUNAR OCCULTATIONS FOR APRIL

| Date | Star | Mag. | Age | Phase | E.S.T. |
|----------|-------------|------|------|-------|--------------|
| April 14 | Iota Tau | 4.7 | 3.9 | D | 8:48.8 P.M. |
| 18 | Alpha Cnc | 4.3 | 7.9 | D | 7:39.4 P.M. |
| 18-19 | Kappa Cnc | 5.1 | 8.1 | D | 1:00.8 A.M. |
| 20-21 | 237 B. Leo | 6.3 | 10.1 | D | 12:55.3 A.M. |
| 22-23 | q Vir. | 5.4 | 12.1 | D | 12:47.9 A.M. |
| 28-29 | BD-22° 4423 | 6.2 | 18.1 | R | 12:15.7 A.M. |

Jewell Boling, Editor, 1717 P Street, N. W., NO 7-7693

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STAR DUST
National Capital Astronomers

April 1956

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APRIL CALENDAR

- April 2, (Mon.) "THE CRAB NEBULA - ITS HISTORY AND PROBLEMS", Dr. J. J. Raimond of the Hague, Netherlands, Gaston Hall, Healy Building, Georgetown University, 8:00 P.M.
- April 7 (Sat.) "PROJECT VANGUARD - PLACING THE SATELLITE IN ITS ORBIT." Dr. Milton W. Rosen, Technical Director of Project Vanguard, Naval Research Laboratory, Department of Commerce Auditorium, 8:15 P.M.
- April 9 (Mon.) "THE HYDROGEN ATOM REVEALS THE STRUCTURE OF THE GALACTIC SYSTEM," Dr. J. J. Raimond of the Hague, Netherlands, Gaston Hall, Healy Building, Georgetown University, 8:00 P.M.
- April 13 (Fri.) GROUP OBSERVING at the NCA 5" at the Naval Observatory with Hoy Walls. Your NCA membership card will let you in the gate. Time: Beginning about 7:30 P.M. Cancelled in case of overcast sky. Maybe Friday the 13th will bring us clear skies.
- April 21 (Sat.) DISCUSSION GROUP with Roger Smith on "ROCKETS AND SPACE TRAVEL" in the Commerce Department foyer at 8:00 P.M. (see story inside).
- April 26 (Thur.) Dr. Donald H. Menzel, Director of Harvard College Observatory will give the annual Arthur lecture on the Sun at the Smithsonian Museum of Natural History auditorium at 10th and Constitution at 8:00 P.M. The title of his talk is "THE EDGE OF THE SUN." This is a public talk with no charge.

Sunday morning we'll have a discussion of "The Artificial Satellite Tracking Program for Amateur Astronomers," a Junior session; the Junior Workshop conference, and the closing session. The convention will adjourn at noon. We would especially like to have all the members of NCA attend the Friday evening social so we can get a chance to know each other better.

--- Ben Adelman

DO YOU HAVE SOMETHING FOR EXHIBIT AT THE MAY 5 REGIONAL CONVENTION? We will have exhibits in the foyer in front of the auditorium. Let's get a large selection from NCA members, both from Juniors and regular members -- telescopes and accessories, celestial photographs, star and moon drawings, observational notebooks; other notebooks, books that everyone might not have seen, etc. Please contact Dana Law, OTis 4-6835 if you can place an exhibit.

MISS LEAH ALLEN, Williams Observatory, the March speaker, was introduced by Bob Wright. Not that such a good neighbor needs much introduction, but the formality was gone through anyway. Miss Allen told us that since the nearest star is about four light years away, a space ship going there would need its own sun as well as atmosphere. The earth is such a space ship, and while it is not going to the nearest star, it is going through space in the general direction of Hercules. This gives us a fine view of the Sidereal scene as we travel along. But it will take many generations to see the whole picture. All we can do is keep records and preserve them as best we can for our descendants.

1956. The appropriate By-Law changes appearing in March Stardust were approved by the members at the March meeting.

DISCUSSION GROUP - "ROCKETS AND SPACE TRAVEL, THE ROLE OF THE ASTRONOMER" - The early astronomer in space will probably be hampered by a space suit so that he will not be able to get his eye close to an external eyepiece. Any instruments he takes from earth will need to be kept to minimum weight and yet withstand the high accelerations of rocket takeoff. What kind of research will he do and what will his instruments be like? What would you, as an amateur, do, given the chance?

--Roger K. Smith

ROBERT T. MOORE has won the top award in the 15th annual nation-wide Westinghouse science talent search. He will receive a \$2,800 scholarship to the school of his choice. He plans to use the scholarship to study mathematical or theoretical physics. The Washington Evening Star says he was named "Nation's most promising young scientist." The Washington Post and Times Herald says he has won science, latin, mathematics, and writing honors. Let us quote STAR DUST as saying, "NCA is proud to number him among its members."

---Thelma Cressy

Observational Data

Mercury reaches superior conjunction on the 5th of April and becomes an evening star. At the end of the month the planet may be seen just after sunset low in the western sky close to Aldebaran. Venus is a brilliant object in the western sky and reaches greatest eastern elongation on the 12th. Mars moves out of Sagittarius this month and is visible low in the southeast for a few hours before sunrise. The planet is in quadrature with the sun on the 29th. Jupiter is nearly on the meridian at sunset and sets soon after midnight. The planet is stationary in right

ascension on the 17th and then resumes eastward motion among the stars. Saturn is near Antares in Scorpius and rises before midnight. On the 15th at 11:00 P.M. (E.S.T.) the Milky Way lies along the northern horizon passing through Auriga, Perseus, Cassiopeia, and Cygnus.

--A. L. White

MIDDLE EAST REGIONAL CONVENTION

The National Capital Astronomers will be hosts to the 1956 Middle East Regional Convention of the Astronomical League, at Washington, D. C., May 4 to 6. All members of the League will be welcome, and a special invitation is extended to societies, both member and non-member, of the Region, members-at-large, and supporting members of the League. The auditorium of the National Association of Home Builders, 1625 L Street, N. W., will be open to delegates from 6 to 10:30 p. m. on Friday, May 4, for a social gathering and registration. The International Business Machines Corporation will show two color movies of the history of electronic business machines and their application to astronomy. Registration Saturday morning will open at 8:30 at the Department of Commerce Auditorium, 14th Street and Constitution Avenue, N. W. The program will cover society reports, papers on observing, and instrumentation.

After a dinner at the Graystone Restaurant, 730 17th Street, N. W., the group will reconvene at the Commerce Auditorium to hear Dr. Joseph Kaplan, Chairman of the U. S. National Commission for the International Geophysical Year. His subject will be "The International Geophysical Year and the Space Frontier." A new feature in convention programs will be a workshop for adults working with juniors, scheduled for Sunday morning. There also will be a junior session and closing session.

All astronomers are urged to bring exhibits. Papers are invited and should be scheduled through the persons listed below:

Observing: Dr. James Q. Gant, Jr., 1726 M Street, N.W.(16)
Instrumentation: Mr. Leo N. Schoenig, 825 Tripoli Street,
Pittsburgh, Pa.

Juniors: Mr. J. Leith Holloway, 2800 Quebec Street, N.W., (8)
Junior Workshop: Mr. Benjamin Adelman, 310 Livingston
Terrace, S. E., Washington 20, D. C.

Anyone planning to take place in the Junior Workshop, which will be a discussion of the problems of working with juniors, should send his ideas on the topics to be covered to Mr. Adelman.

ADDITIONAL MIDDLE EAST REGIONAL CONVENTION NEWS - The IBM movies for Friday evening at the National Association of Home Builders will be in color and last 22 minutes each. They are called "Direct Line to Decision", which is on the application of calculating machines to industry, and "Piercing the Unknown," which gets into the application of computers to research. According to our latest information, the Saturday papers will include a talk by Mr. Adam L. Ott on his experience with a solar eclipse expedition, an address by Mr. Ralph Stair on "Tektites - Their Place in Astronomy" and a discussion of the properties of the Questar telescope by Mr. Ellis Marshall.

Dinner will be at 6:00 P. M., Saturday and tickets will be \$2.25 per person. Reservations should be made in advance, if possible. Registrations should also be made in advance. Mrs. Lillian R. Gregor, 3937 S Street, S. E., is in charge of both registrations and reservations for the dinner.

The importance of microscopes in astronomy was stressed by Miss Allen. One of the two methods of finding out where we are going is to measure the "proper motion" of the stars. This is done by taking photographs which have a time lapse of about 40 years and measuring the star positions shown. The distance given by the micrometer screw when corrected for the sun, etc., tells us how far the sun has moved on its journey about the center of the universe. This proves that we are moving thru space just like a space ship would move from the earth to the moon. Miss Allen made a good many of these herself. The other method which determines "the line of sight motion" is found by examining the spectra of the stars. If the lines shift to the red the stars are going away from us and if it is the blue shift, the stars are coming towards us. A careful analysis of both of these methods show plainly that we are moving not only around the sun but through space.

Miss Allen is very optimistic. She states that it is perfectly possible within the foreseeable future there will be interplanetary travel. She estimates that it would take a little less than five months to reach Venus or eight months to reach Mars. Of course, as we get more experienced and space ships are improved, the time will dwindle.

Miss Allen told your reporter that she thinks, but has no proof of, the concept that our galaxy and Andromeda may be binaries and revolve about a common center of gravity. Miss Allen holds forth no evidence of this idea--it is just a grand thought of a very fine worker in the field of astronomy.

---Morton Schiff