

NEW MEMBERS ADMITTED TO N. C. A.
JANUARY 5, 1957

REGULAR

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FEBRUARY CALENDAR

Feb. 2 "RADIO SIGNALS FROM OTHER PLANETS" Dr. B. F.
(Sat.) Burke, Department of Terrestrial Magnetism, Car-
negie Institution of Washington, Department of
Commerce Auditorium, 8:15 P. M.

Feb. 5 VIRGINIA JUNIORS OVER 12 meet with Mr. Bob Brown
(Tue.) for a trip to Ft. Belvoir. Contact Mr. Brown
and make your reservation as seats are limited.
Mr. Brown's telephone is KE-6-8059.

Feb. 9 D. C. AND MARYLAND JUNIORS OVER 12 meet with Mr.
(Sat.) Leith Holloway at the Chevy Chase Community Cen-
ter, 5600 block of Connecticut Avenue, N. W., from
2 to 4 P.M. for a discussion on telescopes and
observing.

Feb. 16 DISCUSSION GROUP with Everette Neville on cos-
(Sat.) mology. Department of Commerce Foyer, 8:00 P.M.

Feb. 19 Virginia JUNIORS over 12 meet with Mr. Bob
(Tue.) Brown at Westover Baptist Church, Washington
Boulevard and Patrick Henry Drive at 7:30 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.

"RADIO SIGNALS FROM OTHER PLANETS" - In recent
years the development of radio astronomy has led to the
discovery of many new interesting features of the universe.
Less than two years ago astronomers were surprised to
find that the planet Jupiter was a source of radio static.
In the period since then, radio observations have shown
that a new phase of planetary astronomy has opened. Most
of the questions raised still have not been answered, but
this new way of studying Jupiter holds promise of giving

interesting information about the nature of the atmosphere and ionosphere of the largest planet in the solar system.

Dr. Burke is from Lexington, Massachusetts. He received his Bachelor of Science Degree from M. I. T. in 1950 and his Ph. D. from M. I. T. in 1953. Since that time, he has been a physicist at the Department of Terrestrial Magnetism of the Carnegie Institute.

---Mabel Sterns

FEBRUARY DISCUSSION GROUP - The subject of cosmology is a fascinating one. The existing theories are numerous and often somewhat conflicting so you can take your pick or invent your own. This is to be a participating discussion so brush up on your favorite theory and come prepared to join in.

---Everette Neville

THE VIRGINIA JUNIORS met with Bob Brown on January 8 and organized a "Junior Astronomers of Virginia Club". An interesting future program has been planned with next meetings on February 5 and 19. Those interested can get in touch with Bob at KE 6-8059.

---W. R. Brown

DR. HEYL had an accidental fall in April 1955 and was in the hospital till the end of the year. He has somewhat recovered now and can receive visitors. His present address is: 3912 Leland Street, Chevy Chase, Maryland.

MR. J. F. HELIWEG writes that his wife has been seriously ill since 1952 and he has had to decline all invitations.

EXPLORING THE MILKY WAY

Dr. Frank K. Edmondson
National Science Foundation

A lecture with this fascinating title would naturally be interesting to any astronomer, and Dr. Edmondson's thorough information and familiarity with his subject together with his most amiable and much appreciated wit made it both profitable and immensely enjoyable.

OBSERVATIONAL DATA FOR FEBRUARY

Mercury reaches greatest western elongation on the 2nd and may be seen at this time very low in the southeast before sunrise. Venus is a morning star but too close to the sun for easy observation. Mars is in Aries, past the meridian at sunset and visible until about midnight. Jupiter rises late in the evening and is visible for the rest of the night. Saturn rises in the southeast several hours before the sun.

The date of maximum intensity for the AURIGID meteor shower is February 9. This shower averages 12 meteors per hour.

----A. L. White

CLYDE TOMBAUGH, discoverer of Pluto, who has lectured to NCA in the past, made an interesting statement to a reporter recently.

His statement had to do with the possibility that life may exist on other worlds.

"Man could have existed for much longer than we have any evidence he really has," Tombaugh stated.

"When we consider the extremely rapid tapping of new energies we have seen in the past ten years, we can imagine what a head start a race would have which passed our present point of progress a million years, or only a thousand years, before us.

"If they have found how to take advantage of vast sources of energy, very powerful forces of nature, nuclear for example, which we have only begun to explore, they might be able to produce the tremendous power and velocities needed for long journeys into space."

"In our galaxy, we have a spiral of 200 billions suns, each perhaps having its own planets and some possibly with atmospheres and temperature ranges similar to ours.

"There may be hundreds of thousands of worlds which could support life."

First, he described the tools which the astronomer uses for this exploration: optical and radio telescopes, and their important adjuncts such as photomultipliers, spectroscopes, etc., and showed very fine slides of same. There were some very fine photos of Mt. Wilson, Mt. Palomar, and we enjoyed especially those of McDonald Observatory in Texas about which Dr. Edmondson told of some amusing, personal experiences. Also slides of radio telescopes at NRL, Harvard, the partially completed 250 foot in England, and several others were shown along with drawings of the proposed scope to be erected in West Virginia by the National Science Foundation. Dr. Edmondson said that in addition to this proposed instrument a much larger radio telescope at this site was a distinct possibility. In passing, Dr. Edmondson commented that with existing materials, the largest theoretical instrument which could be built would be 3000 feet in diameter.

In his discussion of the Milky Way galaxy he mentioned that the present estimate of the diameter was 75,000 light years. The extent of our present knowledge of the form of our galaxy was discussed as well as the methods by which we have obtained this information. The role of globular clusters in indicating the outline was described and the study of the positions and motions of thousands of stars to aid detail and show the beginning of the spiral structure given. The further extension of the spiral arms has been confirmed by studies of the 21 cm. hydrogen line by means of radio telescopes.

---Everette Neville

LUNAR OCCULTATIONS FOR FEBRUARY

<u>Date</u>	<u>Star</u>	<u>Mag</u>	<u>Age</u>	<u>Phase</u>	<u>E.S.T.</u>
9	1 Tau	5.3	10.2	D	9:08.7 P. M.
9-10	C hi ² Ori	4.7	11.1	D	5:50.6 P. M.
10	68 Ori	5.7	11.2	D	10:37.4 P. M.
17-18	49 Vir	5.3	18.4	R	12:40.9 A. M.
19-19	631 B Vir	6.4	19.4	R	1:27.5 A. M.

---A. L. White

ASTRONOMICAL LEAGUE CONTEST FOR JUNIORS

WHAT TO DO:

Write an interesting story, about 4 pages long (eight minutes reading time) about some subject of astronomy.

WHO'S ELIGIBLE:

All junior members of societies belonging to the Astronomical League, including all League junior groups.

TIME OF CONTEST:

January 1st to May 31st, 1957.

PRIZES:

1st Prize: Spitz Moonscope

2nd Prize: Slide set or chart set from Astronomy Charted

3rd Prize: "The Stars and How to See Them" by E. A. Rey. The book will be autographed by the author.

RULES:

1. All copies of stories must be mailed to Mr. Clarence E. Johnson, 102 State Street, Schenectady 5, New York, before June 3, 1957.
2. Write your name and address on a separate piece of paper and fasten it to your story. Don't write your name on any page of your story.
3. Only stories on astronomy will be considered. Don't write on space travel.
4. All stories will be the property of the Astronomical League. Some of them may be printed in the "Proceedings of the Kansas City Convention" of the Astronomical League.
5. The decision of the judges will be final.
6. The prize winners will be announced at the Junior Program of the Kansas City Convention, September 1, 1957. If a prize winner is unable to be present at the Convention, he will receive his award by mail.