

NEW MEMBERS

Regular
 Major Sam H. Seeleman, 7548 Eastwood Court, Clinton, Maryland
 Junior
 Robert Blechman, 6410 Western Avenue, Chevy Chase 15, Maryland
 Alan Feldstein, 2833 Terrace Drive, Chevy Chase 15, Maryland.

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JANUARY 1964

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CALENDAR FOR JANUARY

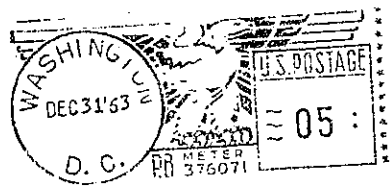
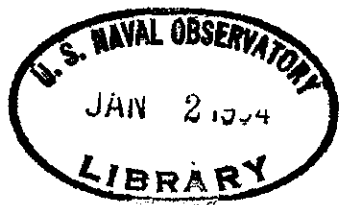
NEW STARS ON THE HORIZON

The Prince Georges County Juniors have organized and layed plans for some photometric work. Mr. Leith Holloway met with the group, giving them a background of NCA juniors and explaining the bylaws of the Junior Division. By way of getting off to a good start the PGJ8s are planning a group observation of the total lunar eclipse on Dec. 30. An observing team of John Stott, Mark Hageman, James "Rusty" King, and Allen Commeree will observe the eclipse, photograph the moon and record the meter readings of the photometer from first contact at 4:25 P.M. until moon set (weather cooperating, that is). Mr. Ted Noble and Mr. William Laslo are heads for this new group. The group will meet twice a month at the District Heights Elementary School, 801 County Line Road, District Heights, Maryland at 7:30 P.M. on the first and third Friday nights. All NCA Juniors living in Prince Georges County are urged to attend these meetings. For further details please call: John Stott, coordinator, (736-2787).

- 3 PRINCE GEORGES JUNIORS meeting at 7:30 PM at the District Heights Elementary School, 801 County Line Road, District Heights, Md.
- 4 THE ORIGIN OF COMETS by Gerald E. Pease. Dept. of Commerce Auditorium, 8:15 P.M. Business meeting Follows.

DINNER WITH THE SPEAKER at 6:30 PM at the Occidental Restaurant. All members invited, for reservations call Mrs. Noble, Lu 2-6721, before noon on Saturday, January 4.

JUNIOR DIVISION - GENERAL MEETING 7:00 PM in room 1851 of the Commerce Department.
- 10 VIRGINIA JUNIORS meeting at the Westover Baptist Church, 1125 N. Patrick Henry Drive, Arlington, Va. 8:00 P.M.
- 11 MD-DC JUNIORS meeting at 2:00 P.M. at the Cleveland Park Branch Library, Connecticut Avenue at Macomb St., N.W. Lunar Surface Formations by Robert Hackman.
- 17 PRINCE GEORGES JUNIORS meeting at 7:30 P.M. at the District Heights Elementary School.
- 18 DISCUSSION GROUP 8:15 P.M. Dept. of Commerce, Room 1851. A discussion on comets lead by Henry Wilson.
- 24 VIRGINIA JUNIORS meeting at the Westover Baptist Church, 1125 N. Patrick Henry Drive, Arlington, Va. 8:00 P.M.
- 25 MD-DC JUNIORS business meeting at 2:00 P.M. at the Chevy Chase Community Building, 5601 Connecticut Avenue, N. W.
- 14, 21, 28 REVIEW COURSE IN ASTRONOMY 8:15 P.M. in Building 59, Naval Observatory, 34th St., & Massachusetts Ave., N.W.
- 7, 14, 21, 28 TELESCOPE MAKING CLASS. At the Chevy Chase Community Center with Hoy Walls, from 7:30 to 10:00 P.M.
- 8, 15, 22, 29 TELESCOPE MAKING CLASS in Bladensburg with William Isherwood, from 7:00 to 9:30 P.M.
- 9, 23 TELESCOPE MAKING CLASS at McLean High School in McLean, Va. with Grady Whitney from 8:00 to 10:00 P.M.
- 3,10,17,24,31 MAKSUTOV CLUB at Chevy Chase Community Center with Hoy Walls from 7:30 to 10:00 P.M.



Library,
 Naval Observatory
 Washington 25, D.C.

THE ORIGIN OF COMETS

The January lecture will be presented by Gerald E. Pease, of the U. S. Naval Observatory, on the subject The Origin of Comets. Included in the lecture will be a discussion of such interesting topics as: "Why do so many comets have near-parabolic orbits?" "Where do these objects come from and what is the mechanism that produces the observed orbits?" Plotting orbits and the writing of a computer program to obtain a preliminary orbit of a comet or an asteroid from three observations by Gauss' Method will be discussed to give a new perspective to the study of comets.

Dr. Gerald Pease is a young enthusiastic astronomer from the State of Washington, having obtained his degree from the University of Washington in Seattle. He is presently employed at the six inch Transit Circle Division of the U. S. Naval Observatory. His spare time is spent studying more astronomy at Georgetown University. His hobbies aside from astronomy include bicycle racing (1963 Maryland Road Champion), long distance cycle touring, camping, and ice skating.

DECEMBER LECTURE ---- ARE WE ALONE?

In a stimulating and thought-provoking presentation our own Bob McCracken gave us some insight into the question of whether there is life elsewhere in the universe. In order to dramatize the vast size of the universe he began by pointing out the impracticality of building an accurate scale model of our solar system which consists of lots of little pieces with lots of space in between. Any model having scaled planets large enough to be seen clearly would be too large to fit into a normal building. Then Bob graphically illustrated salient features of the solar system and the galaxy in which it lies with a splendid set of slides.

Although life as we know it on earth is not likely on any of the other planets of our solar system, there are so many stars in the universe like our sun that surely one has a planet having the same size, temperature, and chemistry as our own. If this is so, could intelligent life develop around one of these stars? Recent laboratory experiments have shown that amino acids, the building blocks for proteins and thus also for living organisms, can be synthesized by relatively simple processes from the raw inanimate substances likely to have been present on the earth in its early history, namely, water, ammonia, methane, and hydrogen. The formation of amino acids is a necessary first step in the long chain of events in the development of higher forms of life. Therefore, life on earth may not represent as rare a phenomenon as we once thought.

Finally Bob discussed the possibility of communicating with intelligent beings on remote planets once they are found. The recent Project Ozma at the National Radio Astronomy Observatory at Greenbank, West Va., detected no intelligent signals from two nearby stars. However, the probability of listening to the right star on the first attempt is quite low indeed. If and when contact is once established, it will take years to exchange messages with planets around distant stars because the signals can travel no faster than the speed of light.

Leith Holloway

MD-DC JUNIORS

Mr. Holloway presented his annual lecture on Relativity before the MD-DC Juniors and a tape recorder, on December 14. While none of us can yet claim membership in that exclusive club of those who thoroughly understand Einstein's Theories, the concepts are not entirely obscure to us now. The tape of this, and our other lectures ("Life on Other Planets" and "Astrophotography") is available through Mr. Holloway.

Our film committee, headed by Butch Goodwin, has not as of press time received a reply from Eastman-Kodak, so film sales previously planned are being delayed indefinitely.

The Project World Day Eclipse Booklet, edited by Doug Richstone sold out its first printing at the December lecture. After the heroic effort by Doug, Ken Ritvo, and Steve Klein of making and drying twenty five 8x10 prints from a 35 mm negative in thirty minutes, the completely junior-financed project sold briskly at cost, fifty cents. More copies will be available at the January 4 meeting for those who couldn't get one.

Many MD-DC Juniors measured the December 30 total lunar eclipse. With observations from other Juniors, another eclipse booklet will be produced. It is hoped that sales will begin in March or April. The MD-DC Juniors have accepted the challenge of the Virginia Juniors to submit one hundred observations per person for N.O.V.A. to their editor at the January meeting. It has been promised that all contributions will be published in the next issue.

Norman Sperling
MD-DC Junior Editor

REVIEW COURSE IN ASTRONOMY

Again this year the NCA is planning to give an eight week course in Astronomy for its members. Last year's course was very successful and it is hoped that these coming sessions will be as interesting and instructive. All sessions, except that of February 25, will be held in Building 59, U.S. Naval Observatory, 34th St., and Massachusetts Avenue, N.W., beginning promptly at 8:15 P.M. Following each lecture Larry White will conduct an observing session at the NCA five inch telescope.

Schedule

- January 14 Introduction to CourseM. B. Booth
Stars, their classification, structure, and evolution
- January 21Ellen Stolarik
The Milky Way Galaxy and Extra Galactic Phenomena
- January 28Hoy Walls
Astronomical Instruments and Techniques of Observation
- February 4Dr. James Krebs
Radio Astronomy
- February 11Leith Holloway
The Celestial Sphere and Astronomical Reference Systems
- February 18Tom Wells
Character of the Solar System, physical and dynamic
- February 25Margaret Noble
Comets, Meteors, and Asteroids (at D.C. Plantarium)
- March 3Ellen Stolarik
Cosmology