

At the present time the MD-DC Juniors are in the process of mimeographing their old project reports. The 1959 Venus report has already been printed and is four pages long. It contains all the important information concerning Venus that was obtained from February to August, 1959. We plan soon to have available yearly reports on Jupiter and Saturn as well as several accounts of the minor planets. These shall be sent out to groups across the country that are participating in the World Night program. Indeed, one of the goals of this year's World Night project is the production of reports on the major planets by each society and the sending of them to other societies. I think that this method is a most interesting way of exchanging information, better than the old way of copying drawings by hand and allowing the recipient to draw his own conclusions. Anyone interested in receiving copies of these reports should see me or one of the MD-DC Juniors at the monthly meeting.

In addition, the astrophotography project is coming along quite well. Good photographs of Venus, the Pleiades and constellation groups have been obtained. All the major technological problems have been solved on Lewis Acker's 8" cross-axis reflector and only minor problems (such as tube balancing) remain before it shall be an instrument of the first rank for astrophotography. Photographs of widely differing scales, from sky areas the size of Ursa Major to small planets such as Mars, are feasible using a variety of cameras, including an aerial one. Next month I shall begin a description of the project, and the month after, I shall include some results of our efforts. I think that you will find it most interesting.

---- Chris Walker  
Junior Editor

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"It is one thing for the human mind to extract from the phenomena of nature the laws which it has itself put into them; it may be a far harder thing to extract laws over which it has no control. It is even possible that laws which have not their origin in the mind may be irrational, and we can never succeed in formulating them."

---- Sir Arthur Stanley Eddington

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# ★ STAR DUST

Washington, D. C.

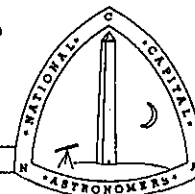


Published monthly except August by and for members of the NATIONAL CAPITAL ASTRONOMERS, INCORPORATED, a non-profit, public-service organization promoting interest and education in astronomy and the related sciences. President, Henry I. Metz; Vice President, Thomas E. Wells; Secretary, Mrs.

John Stolarik; Treasurer, William Lipscomb. Trustees: Sam C. Feild, Jr., Mrs. William Lipscomb, Glen E. Neville, Leo W. Scott. Editor, Mrs. Paul H. Griffith, Ol 4-6904; Assistant Editor, Mrs. Worthington Talcott; Junior Division Editors, Chris Walker and June LoGuirato; Astronomy, Alexander White; Publicity, Mrs. William Lipscomb; Photography and Production, Sam C. Feild, Jr; Distribution, Morton Schiff. Deadline tenth of each month.

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# ★ STAR DUST



April, 1961

Vol. XVIII, No. 8

WORLD WITHOUT END



The problem of the origin and end of the universe will be discussed from the standpoint of observational evidence, of theoretical predictions, and of philosophical import. In particular, attention will be given to current speculative, cosmological theories; viz., evolutionary theories and the theory of continuous creation. Theological implications will be reviewed briefly.

Dr. Raymond J. Seeger received his BA from Rutgers University and his PhD in theoretical Physics (atomic theory) from Yale University where he was the Loomis Fellow. He has also received honorary D.Sc.'s from

State University and Duquesne University.

Before coming to the National Science Foundation, he had held many positions, among them he was the Chief of the Aeroballistic Research Department of the Naval Ordnance Lab, Director of the Institute for Fluid Dynamics and Applied Mathematics at the University of Maryland, and for 16 years he was Associate Professor of Physics and Director of the University Chapel at George Washington University. At present he is also Adjunct Professor of Physics at American University. He is an active member of many professional societies.

## APRIL APPOINTMENTS

- \*8 - WORLD WITHOUT END by Dr. Raymond J. Seeger followed by monthly meeting in Dept. of Commerce Auditorium, 8:15 PM
- 8 - MD-DC JUNIORS MEETING - Chevy Chase Community Building, 5601 Conn. Ave., N. W., 2:00 PM. Ricky Falwell will discuss "An Amateur Jupiter Project".
- 14, 28 - VIRGINIA JUNIORS MEETINGS at Westover Baptist Church, 1125 N. Patrick Henry Dr., Arl., Va. Rm. 234, 8 PM
- 22 - DISCUSSION GROUP - HOBBY NIGHT - "Telescopes and Accessories" led by Mr. Ed Bailey. Dept. of Comm. foyer, 6:00 to 10:30 PM.

## TELESCOPE MAKING CLASSES

Mondays - Chevy Chase Comm. Bldg., 5601 Conn. Ave. with Hoy Walls  
Wednesdays - Fairfax High School with Grady Whitney  
Thursdays - Bladensburg Mat. Ctr., 4600 Varnum with Bill Isherwood

\* Date of meeting changed because of Easter week-end.

## DR. GREEN ENTERTAINS NOA

At the March meeting of NOA Dr. Louis G. Green, Professor of Astronomy at Haverford College, spoke on "Satellites, Rockets, and the New Astronomy".

Dr. Green began by discussing the electro-magnetic spectrum. From the earth the only portions of the spectrum available to us are those between 4000-7000 Angstroms and that between about 1 mm and 30 meters. Since there is radiation over the whole range of the spectrum it would be nice to be able to study it. This can only be done with satellites or rockets above the earth's atmosphere.

Since primary particles are reflected by the earth's magnetic field along the lines of magnetic force only secondary radiation arrives at the earth's surface. To study primary radiation we must go where it is. Already the Van Allen Belts have been discovered. The belts consist of two rings around the earth open at the top and bottom in which the first ring at 3500 kilometer contains energies that correspond to those from the decay of neutrons and is believed to come from the decay of cosmic ray albedo. The second at 160,000 kilometers is due to charged particles from the sun.

From satellites we have already been able to measure the ellipticity of the earth and found it to be 1/298.3 instead of 1/297.3. This difference means that the internal structure of the earth is more rigid than previously thought.

We already know that sun flares increase the cosmic ray intensity but the sun is not the source of the very high energy cosmic rays. Perhaps these high energies are generated in the remains of a giant super nova.

We are on the threshold of a new astronomy. From a satellite we will be able to study the universe unaffected by the earth's atmosphere. The future is limited only by our ability to gather the information available and to interpret it.

----- Ellen Stolarik

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## NEW MEMBERS

## Regular

Merritt B. Booth	Fairhaven, Maryland	AL 7-4464
Samuel Gordon	4606 72nd Ave., Landover Hills, Md.	SP 2-7064
Harold B. Jordan	1504 Ellison St., Falls Church, Va.	JE 4-3672
Jay H. Miller	5905 Greenlawn Dr., Bethesda, Md.	EM 5-3990

## NOMINATING COMMITTEE

The Nominating Committee for the May 1961 elections is as follows:

Mr. Leo W. Scott, Chairman  
Mr. James J. Krebs  
Mr. U. S. Lyons

It gives me great pleasure to confirm the appointment of these three members to this very important committee.

Their task of selecting a slate of suitable candidates is important to the welfare of our society. At the same time the task should be relatively easy because of the many fine, able and willing members from which to make their selections.

The slate of nominees determined by this committee is to be presented to the membership at the April regular meeting.

Henry I. Metz  
President

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## NOA ASTRONOMICAL HOBBY SHOW

There will be a NOA Astronomical Hobby Show in connection with the April discussion group session between 6:00 and 10:30 PM on Saturday, April 22, 1961.

Discussion group will be on telescopes and accessories and will be led by Mr. Ed Bailey, Planetarium lecturer from the Fels Planetarium of the Franklin Institute of Philadelphia. Mr. Bailey is an ardent telescope maker.

All members of the NOA, in addition to attending the discussion session, are asked to bring in their pet astronomical projects for the Hobby Show: small telescopes (please do not bring large heavy units), telescope accessories (cameras, eye pieces and drives), pictures, books, magazines, negatives and whatever you have that you are interested in or have done. We are sure it will be of interest to others.

Please bring your exhibit early and have it set up by 7:00PM if possible. All exhibits must be removed that evening.

If additional information is required, call Bob Wright, Evergreen 4-6748.

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## PLANET CHARTS

We are delighted to include for your handy reference this ephemeris for the five bright planets for 1961. These charts were composed for us by Larry White who once again urges anyone interested in observing at the 5-inch to call him at JE 3-3261.