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JUNIOR DIVISION REPORT

The Junior Division held its May meeting on May 1, immediately prior to the lecture. The principal order of business was election of officers. Carol Farlow and John Geweke were elected Secretary-Treasurer and Vice President respectively. Doug Richstone was elected President unanimously. Project World Night was discussed but due to a lack of information it was decided that the project would not be printed for the MERAL Convention this June.

Sec'y-Treasurer, Junior Division

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MD-DC JUNIORS

Mr. Carroll Lidback of the Naval Observatory spoke to the Md.-D.C. Juniors on time at their May meeting. Emphasizing the differences among Universal, ephemeris, and atomic times, Mr. Lidback described how each is determined, and their relative accuracies. The tape of his talk, and all our others, is available on request from Mr. Holloway.

The June meeting will be a discussion of the future plans of the club. All members planning to be active next year should attend. Elections will also be held.

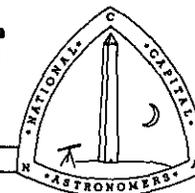
Because of the popularity of the location the Md.-D.C. Juniors have renewed their reservation of the large meeting room of the Silver Spring Library for the 1965-1966 lecture season.

In a surprise move, Md.-D.C. has reelected Norm Sperling as co-ordinator and president."

Norman Sperling  
Md.-DC Junior Editor

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★ STARDUST



June 1965

Vol. XXII No. 10

THE ATMOSPHERE OF MARS



Jaylee Burley

The final NCA lecture for this season will be presented on June 5 by Mrs. Jaylee Burley. She will speak about theoretical investigations of the atmosphere of Mars, which is her principle current work at the Goddard Space Flight Center. Since joining the Goddard staff in 1959 she has analyzed the motion of stars in studies of galactic structure, calibrated the Minitrack system, done reduction and interpretation of 21-cm radio observations of a nearby galaxy, and made orbit calculations.

Before coming to Goddard Mrs. Burley was an engineering assistant at the Knolls Atomic Power Laboratory, taught mathematics and general science at Van Antwerp School in Schenectady, New York, was an instructor in mathematics at

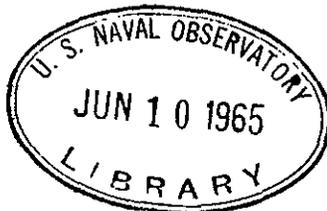
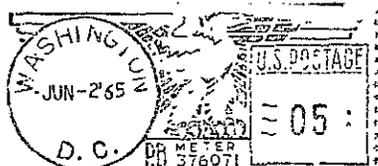
The University of North Carolina, and worked as a mathematician in the Operations Research Office at John Hopkins University. Mrs. Burley graduated magna cum laude from the University of North Carolina, received a MA degree from Stanford University in California, and is currently working on a thesis for her Ph.D. from Georgetown University, Washington, D. C.

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CALENDAR

- June 5 THE ATMOSPHERE OF MARS by Mrs. Jaylee Burley in the Dept. of Commerce Auditorium. 8:15 P.M. Business meeting follows.
- 5 JUNIOR DIVISION SPECIAL MEETING, at 7:00 P.M. in room 2062 of the Department of Commerce. Installation of Officers.
- 12 MD-DC JUNIORS MEETING at 2:00 P.M. in the Silver Spring Library.
- 13 EXPLORING THE SKY -- a special program of viewing and photographing the lunar eclipse at Fort Reno Park at 9:00 P.M.
- 18 JUNIOR DIVISION OBSERVING at Bob Wright's home at 202 Piping Roack Road, Silver Spring, Maryland: at 8:00 P.M. Call Doug Richstone (946-3706) for information.
- 25 OBSERVING AT THE FIVE INCH on the grounds of the U. S. Naval Observatory with Larry White from 9:00 to 11:00 P.M.
- 4,11,18 TELESCOPE MAKING CLASS at the Chevy Chase Community Center with Hoy Walls from 7:30 to 10:00 P.M.
- ADVANCED TELESCOPE MAKING CLASS at the Chevy Chase Community Center with Hoy Walls will continue for the present from 7:30 to 10:00 P.M.
- July 3, EXPLORING THE SKY at Fort Reno Park at 9:00 P.M. for additional
- 24 information call Robert McCracken.

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★ S T A R D U S T

## NEW MEMBERS

The following applications for membership were received at the May 1, 1965 meeting:

<u>REGULAR:</u> Charles Keleman 6505 76th Place Cabin John, Maryland 22034	<u>JUNIOR:</u> Samuel J. Macasse 426 Ingraham St. N. W. Washington, D.C. 20011
	Sarah Lichtenwanger 7510 Gateway Blvd. District Heights, Md.

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## NEW OFFICERS

At the May meeting the following new officers were elected for the coming year and will take office July 1.

President	Mrs. Margaret K. Noble
Vice President	Mrs. Henrick Hudson
Secretary	Mrs. Gertrude Dellar
Treasurer	Mr. Frederick Cornelius
Trustee	Mr. Roy Walls

With such an excellent group of officers we can look forward to another interesting and successful year for NCA.

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## SCIENCE FAIR WINNERS

National Capital Astronomers has the pleasure to announce the names of the students receiving recognition from NCA for outstanding projects in astronomy.

These projects were chosen from both the junior and senior divisions of the Washington Area Science Fairs.

Fairfax-Prince William Area

Junior Award	Wingate R. Burden Jr.	Edgar Allen Pee Intermediate School, Annandale, Virginia
Senior Award	William P. Pala, Jr.	George C. Marshall High School Falls Church, Virginia

Alexandria-Arlington-Falls Church Area

Junior Award	Edison Engle	Kennore Jr. High School Arlington, Virginia
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## Senior Award - Commendations

John Geweke*	Yorktown High School	N. Arlington, Virginia
Eleanor Matter*	" " " "	" " "

\*These two winners both received an award in 1964 from NCA.

Prince Georges-Charles-Calvert - St. Mary's Counties

Junior Award	Samuel F. Trexler	John Hanson Jr. High School
Senior Award	James Wible	Ryken High School Leonardtown, Maryland

Montgomery County- Senior Division

Senior Award	Lawrence E. Troan	Our Lady of Good Counsel High School, Wheaton, Md.
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District of Columbia Area

Senior Award	Alan E. Robertson	Wilson High School, Wash., D.C.
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The Junior Division winner of Montgomery County Fair will be announced at a later date.

I wish to express my appreciation and thanks to the judges for their cooperation and help.

Mr. Benjamin Adelman	Mr. Duane A. Baugher	Mr. Robert McCracken
Mrs. Mary Pala	Mr. Ted Noble	Mr. Leo Scott
Mrs. John Stolarik	Mr. H. C. S. Thom	
		-----Eleanor T. Smith Award Chairman

## MAY LECTURE--OPERATION MOON BLINK

Near midnight on the night of October 26-27, 1964 Lyle Johnson, an NCA member for many years, saw a blinking patch of light near the base of the central peak of the lunar crater Alphonsus while observing the screen of an image tube attached to his 16-inch reflector at Port Tobacco, Maryland. When the image tube apparatus was removed, a red spot was seen visually in this region of the moon's surface. This was the first successful observation of lunar volcanic activity at Lyle's observatory since it had been converted to a prototype of what has now grown to six such stations around the country capable of detecting hot spots on the moon. The other five so-called "Moon Blink" stations are in Huntsville, Ala., Santa Monica, Calif., Kansas City, Mo., Tucson, Ariz., and Alamosa, Col.

Our May speaker, Prof. John J. Gilheany, of the U. S. Naval Academy explains how the moon-blink system works. A blue and red color wheel is slowly rotated between the eyepiece and the photo-sensitive plate of the image tube. The resulting image on the phosphorescent screen at the other end of the tube is intensified and, of course, converted to black and white to remove the distraction caused by periodic changes in color. The apparatus is adjusted so that neutral colors appear the same on the output screen no matter which color filter is in the optical train of the telescope. However, a red spot will appear brighter with the red filter rotated into the field than with the blue filter. Thus the turning two-color filter causes red spots to blink on the image tube. Once discovered the spot can be observed directly in white light and its spectrum can be taken to reveal any emission lines. A hot-line network is being set up in the East to alert other observatories when a red spot is detected at a Moon Blink station.

The landing site of Ranger 9 in the crater Alphonsus was selected because of Lyle's October observation. We are very proud of his contribution to lunar research.

Leith Holloway

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## VIRGINIA JUNIORS WIN AWARDS

Four Virginia Juniors have been quite successful in astronomical ventures recently.

John Geweke, vice-president and vice-president-elect of the Junior Division, won a first place and five special awards, including the N.C.A. award and first alternate for the Navy cruise, at the Northern Virginia Science Fair. In addition, John was a grand prize winner which allowed him to compete in the National Science Fair-International at St. Louis, Mo., May 2-8, where he won fourth place in Earth and Astronomical Sciences.

Ellie Matter won a first place and seven special awards, including the N.C.A. award, at the Northern Virginia Science Fair. Ellie won an honorable mention at the Virginia Junior Academy of Sciences competition in Richmond, Va., May 5-7. She was also elected secretary of the Virginia Junior Academy of Sciences, the statewide organization of science clubs.

Travis Taylor, president of the Junior Division in 1964-65, was a winner in the Virginia Science Talent Search and was one of three hundred students chosen nationally for the Honors group of the Westinghouse Science Talent Search. In addition, Travis was chosen recently as one of forty outstanding seniors in the field of science in the metropolitan area by the Washington Academy of Sciences.

Carol Farlow, secretary-treasurer-elect of the N.C.A. Junior Division, won a first place and a special award in the Northern Virginia Science Fair. She received a third place award at the Virginia Junior Academy of Sciences competition in Richmond, Virginia.