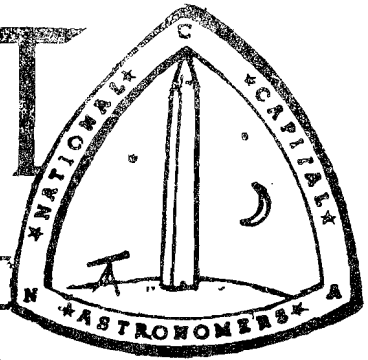


STAR DUST

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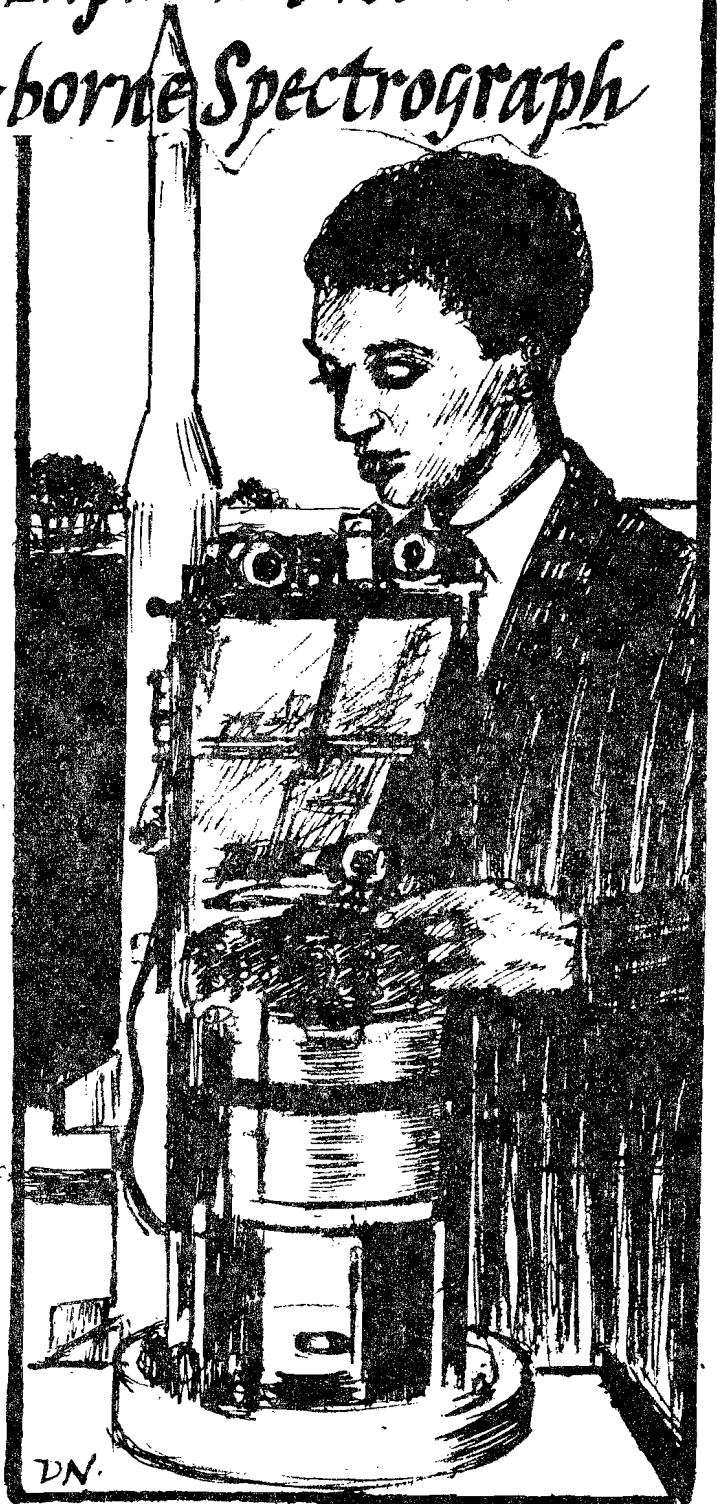
NRL Scientist to Explain Discoveries Made with Rocket-borne Spectrograph

At our next meeting Doctor George R. Carruthers of the Naval Research Laboratory's Space Science Division will discuss his study of interstellar dust with a Schmidt camera and spectrograph. Doctor Carruthers has reported the first direct detection of molecular hydrogen in interstellar space. This was accomplished with a rocket-borne electronic image converter, developed by Dr. Carruthers, which is up to thirty times faster than conventional photographic devices. The discovery of molecular hydrogen in interstellar dust confirms modern theories of stellar evolution.

Doctor Carruthers holds a B.S. in Aero Engineering (1961) and an M.S. in Nuclear Engineering (1962) and a Ph.D. in Astro Engineering (1964), all from the University of Illinois. His Ph.D. thesis was done on high-temperature gas dynamics. He held an E.O. Hulbert Fellowship at NRL in 1964 and joined the Space Science Division in 1966. His work has been described in the Washington Post and in Life Magazine.

John C. Eisele, V.P.

DR. CARRUTHERS DEMONSTRATES
SPECTROGRAPH BEFORE LAUNCH



Short Notes- - - **FROM THE PRESIDENT**, N.C.A. **2.**

An interesting comment on the relevance of amateur to professional astronomy appears in the "letters" column of June the 12th Science (AAAS). Frank Restle of Indiana University has written an article on the well-known "Moon Illusion", and noted that his widely accepted explanation of the effect was first offered back in 1963 by Patrick Rizzo of the Amateur Astronomers Association of New York, but Rizzo's paper was rejected by the American Journal of Physics. Restle's comments on this are a must reading for serious amateurs.

The partial eclipse of the moon on Sunday evening, August the 16th, will be used by both Maryland-D.C. NCA observers at Travilah Elementary School and by the Park Program for star parties. Several of our members have photographed this, using High-Speed Ektachrome. Discussion of this and any other work done during the summer will occur during the first discussion period of the year, September 19th.

Congratulations for fine astrophotography go to Jim Krebs for his photo in the August issue of National Geographic Magazine John Korintus also deserves kudos for the cover photo and the two-page article by him and Col. Opie, of the Transit of Mercury in the July 24th Science. James Trexler also is congratulated on his photo of the corona of the sun, on the August issue of Sky and Telescope's cover.

Jerry Schnall, John Legowik, Bill Winkler and Sidney Opie met at Legowik's home on July 9th to examine the treasurer's books. Thanks to Bonnie's cooking, we left richer in calories if not money.

On a hazy July 26th, several of us met at Col. Opie's home to visit and view Jupiter through a 3 1/2 inch Questar on loan from Father Heyden and a 4-inch Unitron. Only one-half hour of viewing was possible.

A trustees' meeting was held at Bob Wright's home on the 20th of August. A quorum was present. Discussed were the housing of the five-inch at the Naval Observatory. It was decided that the mounting of the five-inch should be replaced with a new one. Queries as to the cost are being sent to Criterion and Unitron for a suitable equatorial mount. Also discussed was an up-coming meeting between members of the NCA and the Naval Observatory staff on the 11th of September.

The discussion group this month will hash over the summer's activities, including any astrophotography and coverage of the lunar eclipse. We also hope that adequate representation of those at the recent conventions will be present.

Congratulations to the NCA juniors and their advisors who participated in a short but excellent panel discussion at the society's reception into the Washington Academy of Science on June 21st, at Georgetown University. Many present and former NCA officers worked hard to make this event a success..

William Winkler

New Members ...

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3.

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Initiation fee \$1.00

For membership without Sky and Telescope, deduct \$5.00

Subscriptions for Sky and Telescope begin in September and end the following August. The subscriptions are pro-rated for members entering during the year with the excess being credited to the following year's dues.

The dues for the rest of the year are as follows:

Regular, with Sky and Telescope - \$8.50

Joint, with Sky and Telescope - \$10.50

Junior, with Sky and Telescope - \$6.75.

Editor's Notes...



During the summer the NCA was well-represented by members at the Baltimore regional convention of the Astronomical League. At the meeting was Father Heyden, as guest speaker, Bill Winkler, as the only contributing member, who discussed evaluation of the eclipse via 8mm. color photography, Bob Wright, Ray Finkleman, Geoffrey Hornseth, Bruce Muirhead, Jean Radoane, George Gould, Sidney and Mrs. Opie, John Korintuş, Mrs. Wright and her daughter Susan, Dr. and Mrs. Legowik and others. The meeting and the dinner following were interesting and some fine discussions arose during the papers and concerning the exhibits adjoining the meeting room proper.

Bob Wright attended the Rochester convention with his family, as can be seen by noting his photo in Sky and Telescope.

Though it is a month away or so, members should start to think about our annual picnic and star party in October. Along with this I might add that the scheduled star parties this summer, though not over-populated, were helpful and attended by many. This winter, though, we are going to need a junior with as much ambition and drive as Ray Finkleman to spur the juniors onward.

Speaking in the capacity of treasurer, I would like to note that the membership roll has decreased this year. As of September 5th, the NCA can boast of 180 members. These include 5 honorary life members, 144 regular memberships and 31 junior members. The fact that 22 regular members did not retain their membership and 24 juniors relinquished their memberships is not too flattering.

John Legowik

CALENDAR

September 12th, 1970, 6:15 PM: Diner with the speaker at Bassin's Restaurant, Pennsylvania and 14th Street, N.W. For reservations please call Dr. John Legowik at 946-8996 or Bill Winkler at 762-5135 before 2 PM on the 12th.

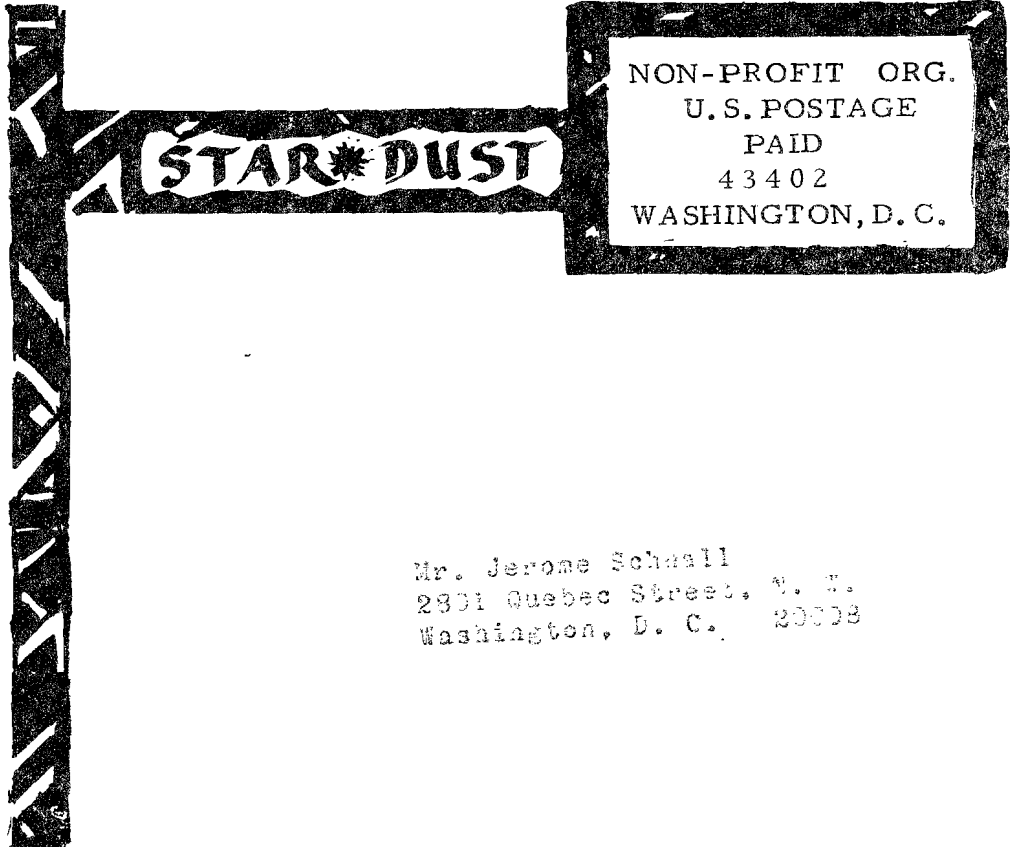
September 12th, 1970, 8:15 PM First meeting of the year. Dr. Carruthers discusses the study of Interstellar Dust using The Schmidt Camera and Spectrographs. The meeting will be held in the Department of Commerce Auditorium, 14th and E, N.W.

September 19th, Department of Commerce, 8:15 PM. Discussion group meets to discuss the activities of the summer and to talk over observations during the summer.

September 26th, 8:30 PM. Public viewing session in Rock Creek Park by the Nature Center. For further information call Bob McCracken at OL 4-3321.

September 11, 18, 25th and October 2nd. 7:30 PM to 10:30 PM. Telescope-making classes at the Palisades Community Center under the direction of Mr. Jerry Schnall.

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