

JUNIOR DIVISION ACTIVITIES

This is the first of a series of articles in STAR DUST concerning the NCA Junior Division.

Stephan E. Klingelhofer,  
Junior Editor

On September fourth at about 7:40 PM EST, there were about five NCA Juniors at Lewis Acker's home, observing and getting ready to photograph, when in the north a bright glow of no particular color started creeping toward the zenith. Soon it had reached the zenith and was a bright pink and yellow.

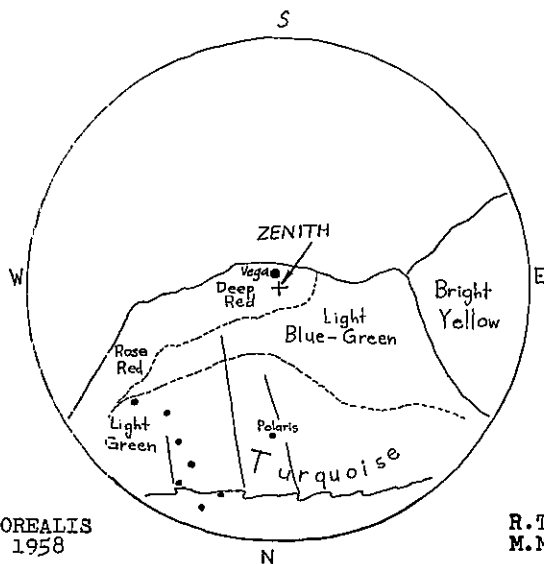
The colors then began appearing in great variety. Red and rose changed into a very bright, shimmering scarlet which spread west and south. On the north a brilliant turquoise, which appeared like a curtain, was seen. On the east was some green and much yellow.

A corona was then formed at the zenith, and was also present at later times that night. Rays extended from it northward, and, at a later appearance, to all horizons except the south, where they stopped about 25° above the horizon.

The display started again at 10:53 with streamers, pulsations, waves, shimmering rays, and much color change. Later on, as the activity died down, only a few rays, some strange colors, and a few pulsations were seen. Soon the moon was up and the boys, Pat Moretti, Mike Mattingly, Sam Friedman, Roy Troxel, Peter Rosenbaum, and Lewis Acker, had to stop looking. A few of us went to Fort Reno, where the NCA has "Exploring the Sky," and watched for the aurora all night.

Other people of the NCA were notified of the aurora, and we hope that most of them saw it.

Michael Mattingly



THE AURORA BOREALIS  
September 4, 1958  
9:00 PM, EDT

R. Troxel  
M. Mattingly

401  
1579

★ STAR DUST



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MURPHY TO ADDRESS NCA ON SEISMOLOGY



Mr. Leonard M. Murphy

Advances in seismology have extended its usefulness over a broad scientific front. Violent earthquakes indicating massive readjustments of the earth's structure, sudden rockbursts relieving tremendous stresses, and gentle microseisms signalling rough seas -- the seismic behavior of the earth -- are finding increased application in meteorology, oceanography, and exploration geophysics.

Future applications of seismology may include the measurement of physical properties of other planets and permit their direct comparison with those of the earth. For example, with advanced instrumentation, the nature or existence of a core such as that of the earth might be determined, or, perhaps, the existence of "Marsquakes" may be detected.

Mr. Murphy earned the MS in seismology from Fordham University and did graduate work in acoustics at Catholic University. He is Chief of the Seismology Branch of the Coast and Geodetic Survey.

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OCTOBER CALENDAR

- 4 (Saturday) - "SEISMOLOGY AND IT'S FUTURE" - by Mr. Leonard M. Murphy, at the Department of Commerce Auditorium, Fourteenth Street at Constitution Avenue, NW, 8:15 PM.
- 11 (Saturday) - JUNIOR DIVISION meets with Leith Holloway at the Chevy Chase Community Center at 2:00 PM. Discussion topic: Theories on the Origin of the Solar System.
- 12 (Sunday) - PICNIC AND OBSERVING PARTY - at Fort Hunt Park, Va. See story inside. Your guests are welcome.
- 18 (Saturday) - DISCUSSION GROUP - In the goyer of the Department of Commerce Auditorium, at 8:00 PM.
- 19 (Sunday) - OBSERVING AND PHOTOGRAPHING THE SKY - Joint program of NCA and National Capital Parks, 7:30 PM at Fort Reno Park, 40th and Chesapeake Streets, NW. Bring friends and telescopes.
- 24 (Friday) - ASTRONOMY COURSE begins at the Guy Mason Community Center, Calvert Street at Wisconsin Avenue, NW, at 8:00 PM. Mr. U. S. Lyons will instruct. Limited to 50 adults.
- 25 (Saturday) - GROUP OBSERVING at the NCA 5" with Bill Isherwood, 7:30 PM at the Naval Observatory. NCA card will admit you.

## NCA PICNIC AND STAR PARTY

On Sunday, October 12, the NCA will endeavor to have the picnic and star-gazing party at Ft. Hunt we were cheated out of in July 1957 because of rain. Being persistent, we will again try to placate the elements and would enlist the solicitous efforts of all meteorologists in the NCA to this end. Therefore we are expecting crystal clear skies but in case the weather prophets are powerless and the day all wet the party is called off -- as there are no shelters at Ft. Hunt. However, we will have a lovely picnic ground available to us, Number 12, which has fire grates and tables enough for more than 75 people, and that is how many we expect to see. After supper we will go out on the green, set up our telescopes and dust off a few stars. We have special permission to use the park till 11:00 PM, so we will have it all to ourselves as the public leaves at dark. Bring your own food and drink -- though water is available. Bring flashlights, and most important, bring yourself and the whole family.

Directions: Go across 14th Street bridge and follow Mt. Vernon Memorial Highway through Alexandria to Ft. Hunt picnic grove sign on the right. Follow signs from entrance to picnic area.

Stargazingly yours,  
Toye Neville  
(Ed. note - Be on time, as auto gate will be locked from dark to 11:00 PM. Those needing rides meet at 14th Street entrance of the Department of Commerce Building for pickup promptly at 4:30 PM.)

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## SOCIAL NOTE

On Friday, September 12, a number of NCA members shared a pleasant evening with the president of the Astronomical League, Mr. Chandler H. Holton, and Mrs. Holton, at the home of Mr. and Mrs. G. R. Wright. Mr. and Mrs. Holton were weekend guests of the Wrights on their return to their home in Atlanta after having spent the summer in New England.

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## TELESCOPE MAKING CLASS HAS HELP

Mr. Walls opened the telescope making class on September 15 with two new assistants. Everette Neville and M. R. Jones have offered to serve as regular understudies, permitting the class to continue the growth which heretofore has so overworked Mr. Walls. Although he is not a member of the NCA, Mr. Jones has, in the past, been of great help in the class, having continued to assist after finishing his telescope last year. He is planning to become a member. The NCA is fortunate in having Mr. Walls, Mr. Neville, and Mr. Jones, and extends its thanks for their services.

R. H. McCracken

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## MABEL STERNS TO EDIT STAR DUST

Beginning with the November issue, Miss Mabel Sterns, to whom STAR DUST owes its beginning many years ago, will resume its editorial duties, relieving Miss Jewell Boling of the task which she has faithfully undertaken for the past nine years, frequently at considerable personal inconvenience. The sincere gratitude of the NCA is extended to Jewell for her work, and to Mabel for its continuation.

All material for publication in the November issue should be sent to Miss Sterns, 1833 New Hampshire Avenue, NW, by October 12.

## NEW MEMBERS

The NCA cordially welcomes the following new members:

Ferdinand S. Cardano, 3803 Thornwood Rd, Hyattsville, Md.	SP 3-5799
Aubrey J. Carrier, 5510 Franklin Ave, Falls Church, Va.	KE 8-5373
Carolyn L. Custer, 1711 Mass. Ave N.W., Wash., (6), D.C.	AD 2-1146
Donald E. Harmon, 5001 Strathmore Ave, Kensington, Md.	WH 2-3477
Hamid Mahdy, 1412 Chapin St, N.W., Apt. 2, Wash. 9, D.C.	AD 4-2483
Mrs. J. L. McCracken, 1906 N. Madison St, Arlington, Va.	KE 8-4475
Mr. & Mrs. Donald E. Roberts, 3B Eastway, Greenbelt, Md.	GR 4-8492
Mr. & Mrs. Elwood E. Schafer, Newburg, Md.	CL 9-2300

## Juniors

Anthony Maione, 9012 Eton Rd, Silver Spring, Md.	JU 7-7321
Henry Shapiro, 1446 Kanawha St, Hyattsville, Md.	HE 4-6398
Stewart Share, 1502 Paula Drive, Silver Spring, Md.	HE 4-6248

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## OBSERVATIONAL DATA FOR OCTOBER

Mercury reaches superior conjunction October 5 and is too close to the sun for observation this month.

Venus is approaching superior conjunction and is too close to the sun for easy observation.

Mars is in Taurus and is visible all night. The planet is stationary in right ascension on the 9th and will then move westward among the stars.

Jupiter is too close to the sun for easy observation.

Saturn is in Ophiuchus and sets several hours after sunset.

The date of maximum intensity for the ORIONID meteor shower is October 20. This shower averages 20 meteors per hour. The moon is at first quarter on the 19th.

On the 15th at 11:00 P. M. (E.S.T.) the Milky Way spans the heavens from east to west crossing just north of the zenith, and passing through Auriga, Perseus, Cassiopeia, Cygnus, and Aquila.

## LUNAR OCCULTATIONS FOR OCTOBER

Date	Star	Mag.	Phase	Age	Time (E.S.T.)	P
Oct. 2	64 Tau	4.8	R	19.7	10:04.9 PM	310°
4	BD-18°1112	6.4	R	21.7	11:54.7 PM	314°
4-5	124 H Ori	5.7	R	21.8	1:50.4 AM	248°
7-8	α Cne	4.3	R	24.9	2:37.1 AM	349°
16	166 B Oph	6.6	D	4.1	6:53.6 PM	76°
17	Y Sgr	5.4-6.2	D	5.1	7:49.0 PM	52°
21	BD-9 5854	6.8	D	9.1	6:23.3 PM	32°
22-23	231 B Aqr m	6.8	D	10.4	1:35.6 AM	67°
29	193 B Tau	6.3	R	17.3	11:05.2 PM	295°
29-30	Delta Tau	3.9	D	17.5	5:06.1 AM	74°

A. L. White, Astronomy Editor

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The earth's magnetic field was used to orient Sputnik III, according to MISSILE DESIGN AND DEVELOPMENT, September, 1958.