

SOME OF THE BRIGHT DOUBLE STARS VISIBLE THIS SUMMER

National Capital Astronomers 1

Star	Magnitude	Color	Separation (seconds)
Iota Cnc	4.2; 6.6	faint orange; blue	31
Tau Leo	5.4; 7.0		90
Theta Ser	4.5; 5.4	yellow; yellow	22
Kappa Her	5.1; 6.1	yellow; reddish	31
Beta Ser	2.9; 5.0	white; lilac	14
Zeta Uma	2.4; 4.0	white; pale emerald	14
Nu Dra	5.0; 5.0	gray; gray	62
Alpha CVn	2.9; 5.4	white; blue	20
Delta Lyr	4.5; 5.5	orange; white	750
Epsilon Lyr	5.6; 5.5	yellow; white	207
Zeta Lyr	4.3; 5.9	yellow; greenish	44
Beta Cyg	3.2; 5.4	orange; blue	34
61 Cyg	5.6; 6.3	yellow; yellow	23
Gamma Del	5.5; 4.5	yellow; bluish-green	12

—A. L. White

Further announcement on three summer conventions which any NCA member may attend:

American Association of Variable Star Observers in Pittsburgh over Memorial Day. See Hoy Walls, (OL 2-5395) for further information.

Astronomical League Convention in Seattle over the 4th of July. See Grace Scholz (OV 3-3037) for further information.

Middle East Regional Convention in Louisville over Labor Day. See Betty Fazekas (NO 7-7253) for further information.

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Jewell Boling, Editor 1717 P St., N. W. North 7-9621

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JUNE-JULY CALENDAR

June 4 "ASTRONOMY OF THE ANCIENT MAYAS," Dr. E. Wyllys Andrews, of Tulane University, Department of Commerce Auditorium, 8:15 P. M. (Sat.)

June 18 EXPLORING THE SKY, Joint program of the NCA and National Capital Parks, Fort Reno Park, 40th and Chesapeake Streets, N.W., 9-11 P. M. Please bring telescopes. (Sat.)

July 21 EVENING ADVENTURE. Another type of Joint program of the NCA and the National Capital Parks. (Thurs.) There will be a nature program from 6:30 till dusk when observations will begin. There will be a movie on the solar system. Rock Creek Park Picnic Grove No. 17 (1/4 mile south of Military Road and Oregon Ave., N.W.) 7:15 P. M. Please bring telescopes.

Each Saturday morning through June 18 Telescope making class with Irene Warthen at Chevy Chase Community Center, 5600 block of Connecticut Avenue, 9-12 A.M. Miss Warthen's phone is LO 5-4058. (Class will resume in September. See note inside.)

ABOUT TWO THOUSAND YEARS AGO there lived in Mexico a primitive people called the Mayas who had neither iron nor the wheel yet their system of mathematics was the most advanced in the world at that time. The Mayas counted in the millions, measured the length of the year and the month with great accuracy and apparently were able to predict eclipses of the moon. They may even have been able to determine the true years of the planets. In other words, the Mayas may have hit upon the idea that the planets

go around the sun fifteen hundred years before Copernicus. Dr. Andrews is a professional archaeologist who has specialized in the study of the ancient civilizations of Mexico. For many years he was associated with the Carnegie Institution of Washington and has taken part in several expeditions to the buried cities of the Mayas. He has a Ph. D. degree in anthropology from Harvard University and has studied the astronomy of this remarkable people.

—Benjamin Adelman

AT THE MAY BUSINESS MEETING the NCA cast its ballot for our Grace Scholz for National President of the Astronomical League.

The NCA elected the following officers to serve for the year beginning September 1955:

- Dana K. Law, President
- Dr. James Q. Gant, Vice President
- Mrs. Tov Neville, Secretary
- John Lund, Treasurer
- William Isherwood, Trustee (for 4-year term beginning Sept. 1955)

An Audit Committee consisting of Mr. Stanley Davis, Chairman, and Mr. Abraham Robinson was appointed to audit the Treasurer's books during the summer and report to the members in September.

Miss Betty Fazekas, the NCA's elected Regional Activity Representative was appointed to head the NCA delegates to the Middle East Regional Convention in Louisville over Labor Day. The members of NCA directed her to seek approval of a motion to make the President of each member organization a member of the Regional Council.

THE TRUSTEES HAVE SAID THAT IRENE WARTHEN should have a summer vacation and the entire NCA membership agrees! The Telescope Class will be closed from June 18 to September 24. Happy summer, Irene!

HALO WITH PARRY ARC

On May 9th I saw a halo that was so bright as to be more noticeable than a rainbow generally is. The halo was first noticed at 4:00 P. M. (E.S.T.) and lasted for about an hour. The 22 degree circle and parhelia, spaced about 5 degrees outside, were well defined, their colors being primarily red and white. Extending outward horizontally from the parhelia for short distances were faint bands of white light whose width was considerably less than the vertical extent of the parhelia. Across the top of the circle was a horizontal arc, perhaps 40 degrees in length, which was tangent and curved slightly downwards. The circle is formed by the refraction of light through tabular crystals of ice floating in the air. The crystals which contribute light are positioned so that their C-axes lie in planes normal to the direction of the sun from the observer. Parhelia are caused by tabular crystals floating with their C-axes vertical. The horizontal bands at the parhelia are portions of the 'parhelic circle', which, when fully developed extends completely around the horizon. It is caused by light that comes by reflection from the vertical surface of crystals. The explanation for the Parry Arc is complex and a corresponding lower arc is also possible. The arcs move outwards from tangency with the circle as the sun's altitude falls below 40 or rises above 60 degrees. They are caused by the refraction of light through long columnar crystals oriented at random in their most stable position, that is with a pair of prism faces horizontal.

—A. L. White

OF THE TWENTY first magnitude stars visible in the entire heavens, seven, or over one third of them, are located in the same region of the sky. This region is visible in the winter. The summer skies are a little dull by comparison.

ANNOUNCEMENT FROM THE PRESIDENT TO ALL COMMITTEE MEMBERS

The entire membership, I am sure, appreciate the fine work of all the Committees and Committee Chairmen during the past season. I hope that each of you will be willing to continue either in your present or in another committee during the coming season.

—Dana Law, President

OBSERVATIONAL DATA FOR JUNE

Mercury is too close to the sun for observation in June, inferior conjunction being on the 16th. Venus is a morning star and may be seen very low in the east just before sunrise. Mars has moved from Taurus into Gemini and is very low in the west at sunset. Jupiter is low in the west at sunset and is visible for about two hours. Saturn is well up in the southeast at sunset and visible for the rest of the night.

—A. L. White

NEW MEMBERS

- Jackson T. Carle, Apt. 106, 359 Irvington St., Wash.D.C.  
Theodore Frontenac, 1305 17th St., N.W., Wash. 6, D. C.  
Harry A. Kline, 1835 Irving St., NW, Wash. (10) DU 7-7759  
Robert L. Uphoff, 2002 G St. NW, Wash. (6) EX 3-9574  
\*Alfred S. Reynolds, 2582 Holman Ave., Silver Spring, Md.  
JU 5-9764  
\*Howard Singleton, 721 25th St., South Arlington, Va.  
OT 4-6825

CHANGES IN ADDRESS

- Robert W. Brown, 5812 North 15th St., Arlington 5, Va.  
Ruth Heisey, 625 Maine Ave., SW, Wash. (24) OV 3-3089  
L. W. Holland, Rt. 1, Annandale, Va. JE 2-3181  
Robert Meisner, Jr. 1321 Rittenhouse St., N.W. (11)  
RA 6-6021

OBSERVATIONAL DATA FOR JULY

Mercury may be seen about the 7th as a morning star, some 12 degrees above the eastern horizon, just before sunrise. Venus is a morning star rising just before the sun in the northeast. Mars is too close to the sun for observation. Jupiter is just above the western horizon at sunset. Saturn is near the meridian at sunset and is visible in the southwest until about midnight.

The date of maximum intensity for the DELTA AQUARID meteor shower is July 28. This shower averages 20 meteors per hour. On the 15th at 11:00 P.M. (E.S.T.), the Milky Way spans the heavens from north to south, passing through Perseus, Cassiopeia, Cygnus, Aquila, and Sagittarius.

—A. L. White

LUNAR OCCULTATIONS FOR JUNE

Date	Star	Mag.	Age	Phase	E.S.T.
26	64 B. Vir	6.5	6.9	D	9:07.4 P. M.
28	83 Vir	5.7	8.9	D	8:28.4 P. M.

LUNAR OCCULTATIONS FOR JULY

Date	Star	Mag.	Age	Phase	E.S.T.
1-2	19 Ser.	4.8	12.0	D	12:42.5 A. M.
3	4 Sgr.	4.8	14.0	D	8:56.4 P. M.
10	19 Psc	5.3	21.1	R	11:59.4 P. M.
26	231 G Vir	6.4	7.6	D	7:58.7 P. M.
26	236 G Vir	5.7	7.6	D	9:05.2 P. M.

—A. L. White

IF YOU HAVE A CHANGE IN ADDRESS during the summer notify the secretary, ELIZABETH GOERNER, 20 Plattsburg Court, N.W., Washington 16, D. C. Telephone EM 3-2492. Let her know in writing if possible.