

OCCULTATIONS FOR OCTOBER 1950

<u>DATE</u>	<u>STAR NO.</u>	<u>MAG.</u>	<u>IMMER.</u>	<u>EDGE</u>
10/2/50	885	5.6	10:53.8 PM	B
10/5/50	1169	5.4	12:32.6 AM	B
10/26/50	435	5.8	9:47.1 PM	B
10/27/50	545	4.2	8:46.1 PM	B
"	552	3.0	9:26.4 PM	B
"	560	3.8	10:42.0 PM	B
"	561	5.2	10:28.1 PM	B
10/31/50	1008	5.0	2:10.0 AM	B

--- J.E. Lankford

THE PLANETS FOR SEPTEMBER AND OCTOBER

Mercury is poorly placed for observation until late in Sept. By the end of the month it is 15° above the horizon at sunrise. In October it is very beautiful in the eastern sky as a morning star.

Venus is still a morning star until the end of Sept. During October it is too close to the sun to be seen.

Mars is just to the west of Antares during Sept. and passes to the east of that star in October. It compares to Antares in color and magnitude.

Jupiter is here again! It rises at sunset during Sept. and is well up in the South-east in October. In Sept. the magnitude is -2.4 and the polar diameter is 45.6". These values hold true for most of October.

Saturn is too close to the sun for observation in Sept. In October it is the morning star, low in the east at sunrise.

--- Jimmy Weinstein

Ed. note. Due to the large article on the eclipse it was not possible to include all our regular features. These shall all be resumed in the next issue. Good seeing on eclipse night and on the 27 of October when the moon is in the Pleiades.

--- J.E.L.

John E. Lankford, Editor, 3118 Central Ave. NE.
North 9272

Published by the Junior Members of
the National Capital Astronomers
Washington, D. C.

September-October 1950

Vol. 2, No. 6

THE COMING LUNAR ECLIPSE OF SEPTEMBER
25, 1950

Ed. Note: I am indebted to Prof. W. H. Hass, director of the Association of Lunar and Planetary Observers, for granting me permission to abstract parts of his article for this paper. For the full article see The Strolling Astronomer for September 1950.

--- J.E.L.

The circumstances of the eclipse are as follows:

Eastern Standard Time

Moon enters penumbra	Sept. 25, 8:20 P.M.
Moon enters umbra	9:32
Total eclipse begins	10:54
Middle of eclipse	11:16
Total eclipse ends	11:40
Moon leaves umbra	Sept. 26, 1:02 A.M.
Moon leaves penumbra	2:14

The A.L.P.O. proposes that two programs be carried out at the coming eclipse: the search for lunar meteors and meteor impact-flares, and the examination of selected lunar regions for eclipse caused changes.

The lunar meteor searches are best carried on during the 46 minutes of totality. At this time all observers should watch the moon as carefully as possible and as nearly continuously as possible. Observers should use a magnification low enough to see the whole moon. An observer who witnesses any unusual bright object should record its exact time of appearance, to the nearest second, and its location on the moon, marked on the chart. If the observed suspects an object, he should report it as suspected.

It is usually very uncertain just how faint a lunar meteor or impact-flare the observer can see. We therefore urge that at the Sept. 25 eclipse each observer make an accurate sketch of stars visible to him near the moon. These should be made between 11:15 and 11:20 EST. Note, why not make this on the back of the moon map in this issue and use the map to record any observed flares?

In making reports to the ALPO of lunar meteors and of crater variation the following facts should be included. Station, telescope magnification, seeing (or steadiness), and transparency. The last two are measured in the following manner. Seeing on a scale of 0-10 where 10 is best and the clearness or transparency on a 1-5 standard where 5 is best. One should also note the beginning and ending times, the number of minutes spent in watching and the part of the moon observed if other than the whole. If any unusual luminous object is seen, there should be recorded its time of appearance, its position on the moon, its angular diameter, its stellar magnitude, the length of its path in angular units or as compared to some crater, direction of motion, the duration, of visibility, the color and any other noteworthy characteristics.

The observer should not try to observe more than four of the objects listed below. Several observations of the craters should be made before and after the eclipse and at one other lunation. All observations should be made at the same telescope and with the same eyepiece. In making observations the observer should make relative estimates of sizes and intensities. E.G. the floor of Grimaldi may be compared to that of Oceanus Procellarum or the size of Linné to that of the white spots on the Mare Serenitatis.

On eclipse night each object should be observed as soon as it leaves the umbral shadow. If anything abnormal is seen it should be observed at short intervals until full-moon appearance returns. If the changes do not endure for more than 15 minutes it is safe to assume that they are caused by the penumbral illumination.

The times of all observations must be noted and also the times of entrance into the umbra and the time when the object leaves the umbra.

The following objects are suitable ones to study for eclipse-caused changes:

1. Linné--Watch carefully the size, brightness and sharpness of the white area around this crater.
2. Eratosthenes-- Estimate the intensities of the dark areas on the floor and walls, especially of those in the east half of the floor.
3. Grimaldi--Watch for changes in the darkness of the floor and changes of the brightness of the spots along the west wall. Pay close attention to the three spots that form a right triangle near the northwest rim of the crater.
4. Atlas--Watch the intensity and appearance of the two main dark areas on the floor, the one near the south wall and the other northwest of the central mountains, and of the narrow dark band joining the two.
5. Stöfler--Examine carefully the dark areas on the floor, and compare the intensities of the ones in its east and west parts.
6. Conon--Note the size, brightness, and general appearance of the floor cloud, a somewhat triangular white area based on the northwest wall.
7. Riccioli--Observe closely the south tip of the conspicuous dark area in this crater, and note its darkness. Visual estimates of the latitude of the south end relative to other lunar objects may be helpful. Note whether the south end is pointed or rounded.

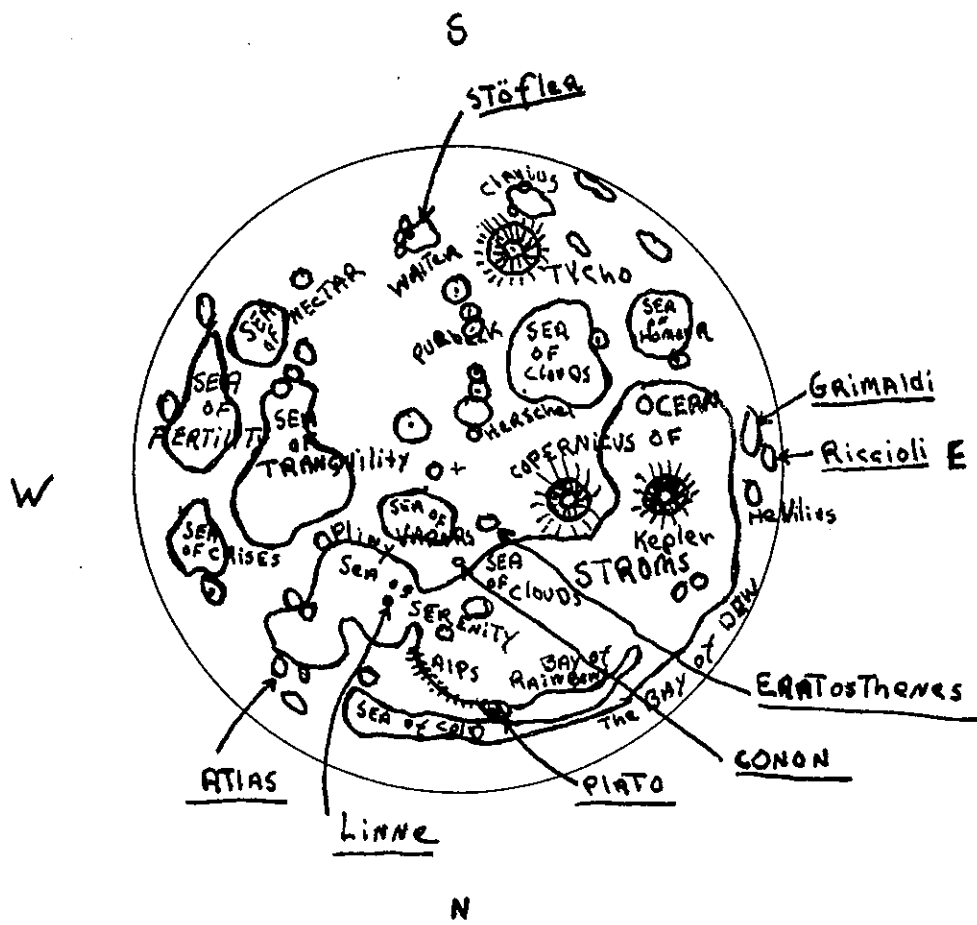
--- W. H. Haas

OCCULTATIONS FOR SEPTEMBER 1950

<u>DATE</u>	<u>STAR NO.</u>	<u>MAG.</u>	<u>IMMER.</u>	<u>EDGE</u>
9/ 3/50	647	5.5	11:24.5	PM B
9/ 7/50	1088	5.6	1:35.7	AM B
9/20/50	2910	4.8	7:6.2	PM D
9/20/50	2914	5.0	8:46.4	PM D
9/27/50	240	5.6	8:28.4	PM B

MAP OF THE MOON

---J.E. Lankford
N.C.A.



N.B.
VARIABLE CRATERS ARE SHOWN BY ARROWS AND
HAVE THEIR NAMES UNDERLINED.