

Stars' light varies

by James Stokley

Saturn is in the eastern sky during October, in Aries. Mars is near the southwestern horizon, in Sagittarius.

The maps show the skies at about 11:00 p.m., local daylight saving time, on Oct. 1. In the middle of the month they look about the same at 10:00 p.m., as they do when October ends at 8:00 p.m. standard time (which returns on Sunday, Oct. 26). Earlier on October evenings objects in the east will be lower, while those in the west will be higher.

While many heavenly bodies remain constant in brightness others vary, sometimes over a considerable range.

The moon and the planets, too, change in brightness and this is especially true of Mars. Last June, when relatively close, it was brighter than any other planet or star then visible in the evening. Now it has faded to about a

sixth of its June brightness.

Some stars also vary, such as Algol in Perseus. Normally it's second magnitude, about as bright as Polaris. But every 2 days 20 hours 49 minutes it fades to about a third of that brilliance, taking about 5 hours to do so and 5 more to brighten again.

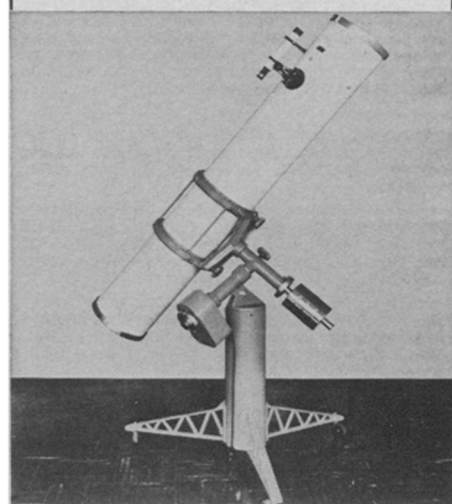
Algol is really two stars, revolving around a point between them in the approximately 69-hour period. One star is bright while the other is considerably fainter. On every revolution the dark body passes in front of its brighter companion, producing a partial eclipse and thus dimming its light.

The Celestial Timetable for the month of October gives the times of Algol's evening minima during the month. These will help you to watch Algol on successive nights, and see how it varies. ◇

CELESTIAL TIMETABLE:

Oct.	EDT	
2	9:10 p.m.	Algol at minimum brightness
3	7:06 a.m.	Moon in last quarter
4	5:00 a.m.	Moon farthest, distance 251,300 miles
5	5:50 p.m.	Algol at minimum
9	3:00 a.m.	Moon passes south of Venus
	6:00 p.m.	Jupiter behind sun
	10:00 p.m.	Moon passes south of Mercury
11	5:40 a.m.	New moon
14	6:00 p.m.	Mercury farthest west of sun, visible around this date low in east just before sunrise
17	3:00 p.m.	Moon passes south of Mars
	midnight	Moon nearest, distance 229,900 miles
18	4:32 a.m.	Moon in first quarter
20	2:00 a.m.	Algol at minimum
22	10:50 p.m.	Algol at minimum
25	4:45 a.m.	Full moon
	4:00 p.m.	Moon passes north of Saturn
	7:40 p.m.	Algol at minimum
	EST	
28	9:00 p.m.	Saturn opposite sun

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