

# Venus, Jupiter shine

by James Stokley

Drawing closer together, two planets are prominent in the evening sky during July. Venus is the brighter. It stands in the west in the constellation Leo. Jupiter is in the southwest, in Virgo. It will not be seen as soon as Venus, because it is only about a sixth as bright. Both planets, however, will be visible in the darkening sky well before any stars appear.

The accompanying maps show how the sky looks about 11:00 p.m., local daylight saving time, on July 1, and at 10:00 p.m. on the 15th. It would have a similar appearance on the 31st at 9:00, but then the sky will still be quite bright, with only a few stars visible.

Because Venus is moving rapidly through the sky it is shown in two positions—for the middle and end of the month. On July 1 it has already set at the map time.

Late on July nights another planet, Saturn, appears in the east. It rises about 2:30 a.m., daylight time, on the first, and 12:30 a.m. on the 31st. Mercury and Mars cannot be seen this

month; they are almost in line with the sun.

The brightest star visible in the evening is Vega, high in the east in Lyra.

On July evenings two of the largest known stars can be seen. One is bright Antares, the star toward the south in Scorpius. Its diameter is over 200 million miles, about 250 times that of the sun (864,000 miles).

The other, much fainter, is overhead in Hercules; it is called Ras Algethi (indicated on the southern map by X). It is nearly 700 million miles in diameter, about 800 times that of the sun.

Ras Algethi is so big, in fact, that there would be room inside it for the sun as well as Mercury, Venus, Mars and earth, all revolving in their customary orbits. Even Antares is big enough to contain the earth's orbit.

According to a theory proposed by Dr. Allan Sandage, of the Mt. Wilson and Palomar Observatories in California, the sun eventually will become a red giant like Antares. That, however, will be some five billion or six billion years from now.

## CELESTIAL TIMETABLE

July	EDT	
3	11:18 a.m.	New moon
4		Earth farthest from sun, distance 94,514,000 miles
6	7:00 p.m.	Mercury behind sun
7	1:00 a.m.	Moon passes south of Venus
	8:00 a.m.	Moon farthest, distance 252,100 miles
	noon	Moon passes south of Regulus
11	noon	Venus passes north of Regulus
	3:43 p.m.	Moon in first quarter
12	10:00 a.m.	Moon passes south of Jupiter
15	noon	Moon passes south of Antares
18	3:59 p.m.	Full moon
19	6:00 p.m.	Moon nearest, distance 223,000 miles
25	7:00 a.m.	Moon in last quarter
26	9:00 p.m.	Moon passes north of Saturn

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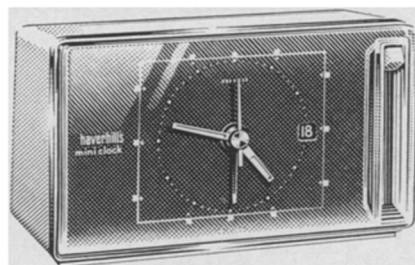
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