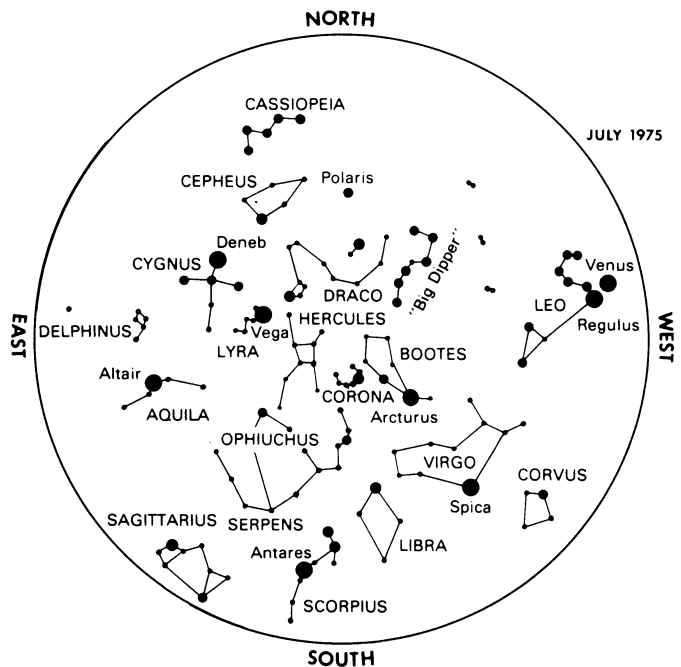


# STARS OF JULY

## CELESTIAL TIME TABLE

July	1	12:37 PM EDT	Moon in last quarter
	2	5:00 PM	Moon passes north of Jupiter
	3	noon	Moon passes north of Mars
	4	10:00 AM	Mercury farthest west of sun
	5	11:00 PM	Earth farthest from sun for 1975; distance 94,512,000 miles
	9	12:10 AM	New moon
	11	4:00 PM	Moon nearest earth; distance 226,500 miles
	15	11:00 AM	Saturn behind sun
		3:47 PM	Moon in first quarter
	21	8:00 PM	Venus at greatest brilliancy
	23	1:28 AM	Full moon
	27	noon	Moon farthest; distance 251,900 miles
	30	6:00 AM	Moon passes north of Jupiter
	31	4:48 AM	Moon in last quarter



BY JAMES STOKLEY

Although Venus is now rapidly drawing toward the sun and setting earlier each evening, it is still brightening and shines with dazzling brilliance in the western sky at dusk. On July 1 it sets about two and a half hours after sunset but by month's end it will go below the western horizon only about an hour after the sun. Greatest brilliance comes on July 21.

If you look at Venus through a telescope you will see that it now shows a crescent phase, like that of the moon a few days after it is new. As Venus moves in the direction of the sun, which illuminates it, more and more of the bright half turns away from us. Thus the crescent will steadily narrow until the end of August. Then it passes between sun and earth and disappears from the evening sky.

The moon, as it goes through its cycle of phases, stays at nearly the same distance from us—about 240,000 miles.

Venus, on the other hand, comes closer as its crescent narrows. At the beginning of the year, when it was full and presented a complete circle, it was far out beyond the sun—153 million miles from earth. On July 21 it will be 42 million miles away. Being so close, it will look twice as bright as in January, though most of the illuminated surface is invisible.

No other bright planets appear on July evenings, but Jupiter rises at about midnight. One seventh as brilliant as Venus, it will be prominent in the east in the early morning. Mars follows about an hour later, considerably fainter although still equal to a first-magnitude star.

Brightest of the stars now in the evening sky is Arcturus, part of Boötes which is high in the west. Only slightly fainter is Vega, in Lyra, which stands toward the east. Below this group is Cygnus, with Deneb as the brightest star. Toward the southeast is Altair in Aquila. Vega, Altair and Deneb form the Summer Triangle.

Virgo, in the southwest, is marked by Spica, somewhat dimmed by its low altitude. Still lower, in the South is Scorpius, with red Antares. Between Scorpius and Virgo is Libra, not very conspicuous even though it is one of the twelve constellations of the zodiac, the path in the sky of sun, moon and planets.

Low in the southeast, to the left of Scorpius, you'll see Sagittarius, another zodiac group. Its stars, none brighter than second magnitude, form the outline of a teapot, the spout to the right, the handle to the left. Ophiuchus is above Scorpius and Hercules is directly overhead.

Warm summer nights, particularly those without a bright moon, afford a good opportunity to find some of the smaller and fainter but interesting constellations. For example, there is Corona Borealis (northern crown), high in the west between Hercules and Boötes. Gemma, brightest of this little semicircle of stars, is second magnitude. □

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