



☼ ★ ○ Symbols for stars in order of brightness

Mars bright in October skies

by James Stokley

Mars, now making its closest approach to earth since the summer of 1971, will be one of the three bright planets in the October evening skies. On Oct. 16 it will be 40.5 million miles away. It is high in the east in Aries.

Mars will shine more brightly than any other planet except Venus, which you can see low in the west soon after sunset. Venus, more than four times as bright as Mars, sets about two hours after the sun, too early to be shown on the above maps (except that its Oct. 31 position is indicated). Jupiter, only slightly fainter, is in the southwest, in Capricornus.

Less than a year ago Mars was visible low in the east before dawn, about as bright as the polestar. About Oct. 24 it will be 50 times brighter than it was then. Among the planets only Venus can become brighter.

In succeeding months Mars will fade, then brighten again during 1975. By December 1975 it will once more be prominent, although only about half as brilliant as now. In January 1978, it will shine with about two-thirds of its 1975 brilliance. It will again be on view in February 1980 and still fainter. But even then it will be more brilliant than any of the stars around it except Sirius (the star in Canis Major, which is so conspicuous on winter evenings).

On following returns, in 1982, 1984 and 1986, Mars will be successively brighter. By September 1988, it will be even more prominent than now although fainter than in August 1971.

The reason for these wide variations

in brightness is the considerable eccentricity of Mars' orbit. It departs from a perfect circle more than any other planet except Pluto and Mercury.

Earth's mean distance from the sun is 93 million miles; that of Mars 141.7 million. We encircle the sun every 12 months while Mars goes around in about 22.5 months. Every 2 years and 2 months earth catches up to Mars and Mars is closest to us. This is called an opposition because Mars is directly opposite the sun.

This year, on Oct. 16, Mars will be 40,532,000 miles from earth. Mars will be more than 5 million miles farther than it was in 1971, but it will be higher in the sky for Northern Hemisphere observers and thus more easily seen. The closest approaches always occur in August, when Mars is far south.

The above maps show the skies as they look on Oct. 1 about 11 p.m., local daylight saving time; 10 p.m. on the 15th, and 8 p.m. standard time to which we will return on Sunday, Oct. 28. □

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Oct.	EST	
3	6:00 pm	Moon farthest, distance 251,100 miles
4	5:32 am	Moon in first quarter
11	10:09 pm	Full moon
15	8:00 pm	Moon nearest, distance 228,600 miles
16	11:00 pm	Mars nearest, distance 40,532,000 miles
18	5:00 pm	Mercury farthest east of sun
	5:33 pm	Moon in last quarter
24	10:00 pm	Mars opposite sun
25	10:17 pm	New moon
31	2:00 pm	Moon farthest, distance 251,600 miles



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