

# Mars nearing the earth

by James Stokley

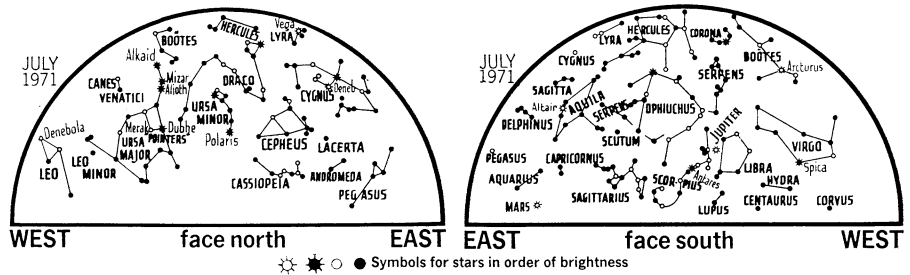
Mars and Jupiter are both prominent in the July evening sky. They are much brighter than the stars around them so they will be easy to locate. Jupiter is visible in the south soon after the sky darkens. It is between the constellations of Scorpius and Libra. Mars, at the first of the month, rises about 2.5 hours after sunset, in Capricornus. As July ends it will appear less than an hour after sunset.

The maps depict the sky as it appears at 11 p.m., local daylight saving time on the 1st; 10 on the 15th, and 9 on the 31st.

Mars, slightly fainter than Jupiter in early July, is steadily increasing in brilliance as it approaches earth. It will make its closest approach on Aug. 11. It will be closer to earth than at any time in the 20th century, except on Aug. 22, 1924.

**Mars revolves** around the sun at a mean distance of about 142 million miles, slightly more than 1.5 times the earth's mean distance (93 million miles). Earth goes around the sun once in 365¼ days while Mars takes 687 days for one circuit. Every 780 days we catch up to Mars. This is called opposition, for sun and Mars are in opposite directions, and the earth is closest to Mars. The two planets are farthest apart halfway between oppositions, when they are on opposite sides of the sun.

This summer astronomers all over



the world are taking advantage of the close approach to study it intently. Observers in the Southern Hemisphere will have the most favorable view for it will be high in their sky. This occurs because the place in the Martian orbit where it is nearest the sun is close to

the earth's position in August. The Northern Hemisphere then tilts toward the sun and away from the opposite part of the sky where Mars is located. But earth's Southern Hemisphere is tilted away from the sun and toward Mars, so it's high in their sky.

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CELESTIAL TIMETABLE		
July	EDT	
4		Earth farthest from sun, distance 94,512,000 miles
	5:00 p.m.	Moon passes south of Jupiter
8	6:37 a.m.	Full moon
10	midnight	Moon passes north of Mars
12	11:00 a.m.	Moon nearest earth, distance 228,600 miles
15	1:47 a.m.	Moon in last quarter
18	3:00 a.m.	Moon passes north of Saturn
22	5:15 a.m.	New moon; partial eclipse of sun visible in the northwestern tip of Alaska and northeastern Siberia
27	11:00 p.m.	Moon farthest, distance 251,500 miles
29	6:00 p.m.	Mercury farthest east of sun
30	7:07 a.m.	Moon in first quarter.