

Stars of June

CELESTIAL TIME TABLE

July 4	8:40 am EDT	Full moon
	10:00 pm	Earth farthest from sun for 1974: distance 94,507,000 miles
6	5:00 pm	Moon farthest: distance 252,320 miles
10	3:00 am	Moon passes north of Jupiter
12	11:28 am	Moon in last quarter
17	7:00 am	Moon passes north of Venus
18	midnight	Moon passes north of Mercury
	7:00 am	Moon passes south of Saturn
19	8:07 am	New moon
	6:00 pm	Moon nearest: distance 221,150 miles
21	11:00 am	Moon passes south of Mars
22	5:00 am	Mercury farthest west of sun; visible for about a week around this date low in east at dawn
24	noon	Mercury passes south of Saturn
25	11:51 pm	Moon in first quarter
31	5:00 am	Venus passes north of Saturn

by James Stokley

As was the case last month, the early evening skies of July contain no conspicuous planet. So we'll look at some of the stars that are now prominent—especially the brightest, those that astronomers rank as first magnitude.

High in the west is Vega, in Lyra, one of the brightest stars visible on summer evenings. Below it is Cygnus with Deneb, about a third as bright as Vega. A little lower and toward the right stands Aquila, with Altair the brightest star. It's about 1.6 times as bright as Deneb. Vega, Deneb and Altair form the "summer triangle," so conspicuous at this time of year.

Low in the south, now about as high as it ever rises in our latitude, is the group called Scorpius, with red Antares. Next, to the right, you'll see an irregular pentagon of stars that form the rather in-

conspicuous figure of Libra. Next to that is Virgo, with Spica, which is almost exactly as bright as Antares. Both stars are dimmed because of their low altitude and the consequent absorption of their light in our atmosphere.

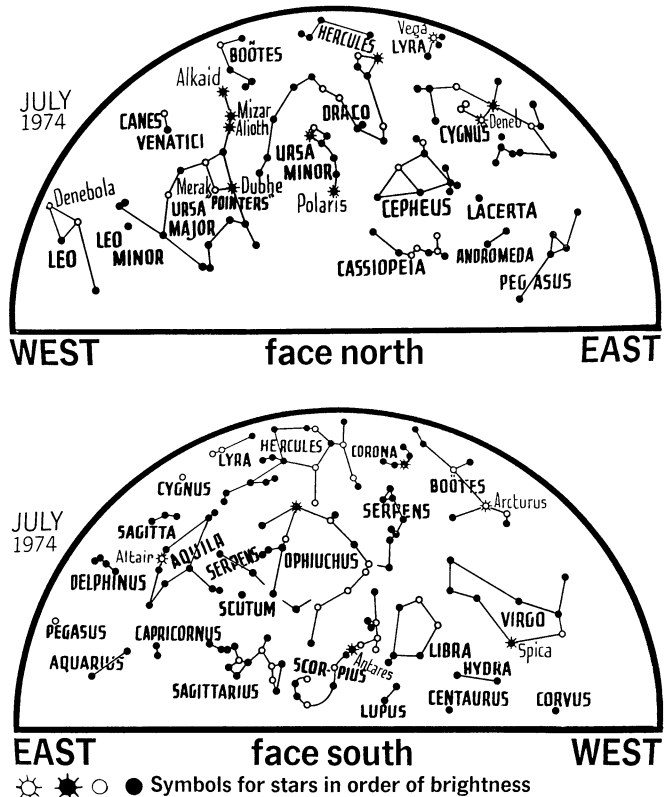
Moving upward from Virgo you come to Boötes. Here stands Arcturus, brighter than Vega although it's farther away. Mars is low in the west after sunset and sets about two hours later. This fact, combined with its great distance, nearly at maximum, makes it hard to locate.

About midnight on July 1, and 10 p.m. on July 31, Jupiter climbs above the horizon. It shines so brightly that you should locate it easily, in the constellation of Aquarius. Venus, even brighter, rises in the east about two hours ahead of the sun. By the month's end Saturn and Mercury will be visible low in east at dawn.

Our star maps show the skies from 40 degrees north latitude. This follows a line

across the middle of the United States. Since summer is a time for vacations, when many of us travel around the nation, we might consider how one star changes as you move to the north or south. We'll take Antares. From 40 north it's about 24 degrees above the horizon when directly south. If you travel north one degree (about 69 miles) it will drop one degree lower, to about 23 degrees. This is about twice the apparent diameter of the moon, so probably you wouldn't notice it. If you go 69 miles south, it will be a degree higher in the sky.

Even a difference of two or three degrees is hardly noticeable, but when you change latitude much more than this, you may begin to observe a change in the star's height. Montreal's latitude is about 45 degrees. Around there Antares will be about 5 degrees lower—about 10 times the moon's diameter—than you see it from Philadelphia. □



☀ ☼ ○ ● Symbols for stars in order of brightness

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