

ASTRONOMY

Few Planets in March Sky

Brilliant Jupiter, seen in Taurus, will be visible throughout March, while Mercury seen low in the west, will vanish from sight early in the month.

By JAMES STOKLEY

▶ **ALTHOUGH JUPITER** is the only planet visible through March evenings, elusive Mercury will appear briefly at the beginning of the month. On March 4 its orbital motion will take it farthest east of the sun, so it will remain visible as twilight falls.

At 45 degrees north latitude, Mercury will be about 16 degrees above the western horizon at sunset. For about a week around March 4 it may be seen low in the west just after sunset.

Mercury does not appear on the accompanying maps, as these show the sky for about 10 p.m., your own kind of standard time, at the first of March. The sky looks about the same at nine o'clock in the middle of the month, and at eight o'clock at the end of the month.

Jupiter is high in the west, in Taurus, the bull. Earlier in the evening you will see it farther to the south, and its great brilliance will make it easy to find.

Sirius Brightest Evening Star

Lower in the south shines the brightest star of the evening: Sirius, in Canis Major, the great dog. Sirius is about two-thirds as bright as Jupiter, but its scintillating brilliance is quite different from the steady glow of the planet.

To the right of Sirius stands the magnificent constellation of Orion, the warrior. It contains two very bright stars, Betelgeuse (above) and Rigel. Between them a row of three fainter stars marks Orion's belt. Still farther right and a little higher is Taurus, in which Jupiter is now located. Aldebaran, which marks the bull's eye, is a bright red star.

Moving to the right from Jupiter, shown on the map of the northern half of the sky, is Auriga, the charioteer, with the brilliant

star called Capella. To the left of Jupiter, high in the southern sky, are the twins, Gemini, with Castor and Pollux. The latter is brighter.

Below Pollux is the constellation of Canis Minor, the little dog. Procyon, another prominent star, stands in this constellation.

Orion and the neighboring groups are all constellations typical of winter, and soon will be gone from the evening sky. Taking their place are the groups of spring, three of which are visible in the east.

High in the southeast is the lion, Leo, of which Regulus is the brightest star. This is at the end of the handle of a group called the Sickle, because its stars outline the shape of that agricultural implement. Also in Leo is a fainter star called Denebola, which marks the animal's tail, as it was shown on the old star maps. These old maps actually pictured the imaginary figures around the stars.

Below Leo is Virgo, the virgin, another spring-time group. In it is another bright star, Spica, which appears fainter than it should because it is so low in the sky. To the left of Virgo, shown on the northern sky map, is Bootes, the herdsman, with another bright star, Arcturus.

High in the northern sky, Ursa Major, the great bear, is now in a favorable position. Here we find the seven stars that form the familiar Big Dipper. At the left are the pointers, which are in a line that points to Polaris, the pole star, in Ursa Minor, the little bear. Shining almost directly over the north pole of the earth, Polaris has long been the constant star by which navigators and others can find their direction on clear nights.

The constellations of Virgo, Leo, Gemini and Taurus form part of the zodiac—the belt around the sky through which the sun, the moon and the planets appear to move. Between the lion and the twins is the crab, Cancer, which is another of the zodiacal constellations and the most inconspicuous of all of them.

This is the constellation whose name was

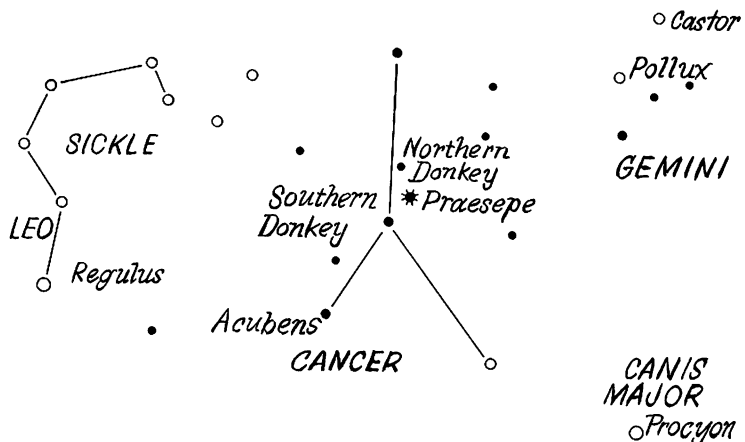


FIGURE 3



given to the Tropic of Cancer, the imaginary line on earth that marks the northern limit of the torrid zone. Here the sun passes directly overhead on June 21, the day that summer commences in the Northern Hemisphere. In our age, on that date, the sun then is in front of the constellation of Gemini.

Thousands of years ago, when the Tropic of Cancer was named, the sun was in front of the stars of Cancer on the first day of summer. However, once every 26,000 years, the constellations of the zodiac appear to turn a full circle, since the earth's axis of rotation is tilted relative to the stars and the earth wobbles, or precesses, like a top as it spins. At this time in the 20th century, the twins are in the position formerly occupied by the crab.

Even the brightest star in Cancer is quite faint—of the fourth magnitude—but the constellation contains a famous cluster of stars that can be detected by the naked eye under good conditions. This is called Praesepe. Its location is indicated on the southern sky map, while Fig. 3 shows the region in greater detail. Praesepe has often been mistaken for a comet, but if you examine it with a small telescope or a good pair of binoculars, you will see that it is made of a swarm of stars.

These stars were first detected in 1610 by Galileo, when he examined the heavens with his tiny telescope. In a book published later that year, in which he first gave to the world the result of his pioneer telescopic observations, he referred to "the nebula called Praesepe, which is not one star only, but a mass of more than 40 small stars."

Praesepe has other names. One is the Beehive, a name whose origin is not clear. Another is the Manger, associated with two nearby stars known as the donkeys. Astronomers estimate that this cluster is at a distance of about 520 light years.

Toward the west, in Taurus, the northern sky map shows another famous cluster, the Pleiades, which is somewhat nearer, at a distance of 430 light years. Six of the stars are visible to the naked eye, but with telescopic aid you can see many more.

Celestial Timetable for March

MAR. EST

| | | |
|----|------------|--|
| 1 | 3:00 a.m. | Moon passes north of Jupiter |
| 4 | 11:00 p.m. | Mercury farthest east of sun |
| 6 | 6:00 a.m. | Moon nearest, distance 222,000 miles |
| | 8:46 p.m. | Full moon |
| 10 | 5:00 p.m. | Saturn behind sun |
| 11 | 1:50 a.m. | Algol (variable star in Perseus) at minimum brightness |
| 13 | 7:19 p.m. | Moon in last quarter |
| | 10:40 p.m. | Algol at minimum |
| 16 | 7:30 p.m. | Algol at minimum |
| 17 | 5:00 p.m. | Moon passes south of Venus |
| 18 | 10:00 p.m. | Moon farthest, distance 252,400 miles |
| 20 | 8:53 p.m. | Sun directly over equator, spring commences in Northern Hemisphere |
| 21 | 9:00 a.m. | Mercury between earth and sun |
| | 11:47 p.m. | New moon |
| 28 | 2:00 p.m. | Moon passes north of Jupiter |
| 29 | 3:44 p.m. | Moon in first quarter |

Subtract one hour for CST, two hours for MST, and three hours for PST.

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