

SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

## Jupiter Dominates Nights

by James Stokley

Two brilliant planets come into the evening sky of January to join the bright winter stars normally visible.

Low in the southwest, just after sunset, Venus appears, long before any other planet or any star. However, early in the month at least, it sets before the sky is completely dark. By the end of January it will be seen more easily, for it will remain above the horizon for two hours or more after sundown.

The other bright planet is Jupiter. Only about a third as bright as Venus it will be much more conspicuous. In the constellation of Cancer, the crab, Jupiter will be directly opposite the sun on Jan. 20. Thus it will rise in the east as the sun sets-and will set at sunrise. Its distance then will be 397 million miles.

Jupiter's position in the southeast, in Cancer, is shown on the accompanying maps, depicting the sky's appearance at about 10 p.m., your own kind of standard time, at the beginning of the month. The stars look the same in mid-month about an hour earlier, and two hours earlier at the end.

The maps do not show Venus, which sets too early, but they do show a third planet. This is Saturn, which is seen in the southwest, in Aquarius, the watercarrier. Although much dimmer than Jupiter, Saturn is still as bright as a first magnitude star.

A few hours later than the time for the maps, Mars can be seen in the east in Virgo, the virgin. About one and a half times as bright as Saturn, its red color will make it easy to identifv.

Brightest of the stars is Sirius, the so-called "dog-star," which is part of Canis Major, the greater dog, visible during January in the south.

Higher and to the right shines the magnificent constellation of Orion, the warrior, with two bright stars. These are Betelgeuse, the upper, and Rigel. Between them are three fainter stars that mark the warrior's belt, according to the old legends of the stars.

Above Orion and farther right stands Taurus, the bull with the bright reddish star called Aldebaran. Also in

this constellation is the little cluster of faint stars called the Pleiades - the "seven sisters" of mythology, six of which are readily visible.

Above Sirius toward the left is the lesser dog, Canis Minor, with the bright star Procyon. Above this group shines the constellation of Gemini, the twins. This contains Castor and Pollux, the latter being the brighter.

Almost directly overhead, shown mainly on the map of the northern half of the sky, is Auriga, the charioteer, with bright Capella. To the west of this figure is Perseus, named for a hero in Greek mythology. It contains no first magnitude star, but is the location of Algol, the eclipsing binary star. This is a famous variable star, which, through a telescope, looks like one star but is actually two revolving stars. It dims every 68 hours and 40 minutes when the fainter of its stars moves in front of its brighter companion and partly hides it.

Two other first magnitude stars appear on the maps, but both are so low that atmospheric absorption dims them considerably. One is Deneb, in Cygnus, the swan, near the northwestern horizons. Regulus is the other, in Leo, the lion, to the east.

CELESTIAL TIMETABLE FOR JANUARY			
Jan.	EST		
1	5:00 a.m.	Moon nearest, distance 229,400 miles	
1 .	midnight	Earth nearest sun, distance 91,347,000 miles	
3	9:19 a.m.	Moon in last quarter	
	2:00 p.m.	Moon passes north of Mars	
6 9	3:20 a.m.	Algol at minimum	
9	12:10 a.m.	Algol at minimum	
10	1:06 p.m.	New moon	
11	7:00 p.m.	Moon passes south of Venus	
1	9:00 p.m.	Algol at minimum	
14	5:50 p.m.	Algol at minimum	
15	6:00 p.m.	Moon passes south of Saturn	
16	4:00 p.m.	Moon farthest, distance 251,500 miles	
17	9:00 p.m.	Mercury behind sun	
18	2:42 p.m.	Moon in first quarter	
19	midnight	Jupiter opposite sun	
25	1:00 p.m.	Moon passes north of Jupiter	
26	1:41 a.m.	Full moon	
28	10:00 a.m.	Moon nearest, distance 226,000 miles	
31	4:00 p.m.	Moon passes south of Mars	



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