DECEMBER STARS

BY JAMES STOKLEY

Shining with dazzling brilliance low in the western sky, the planet Venus will quickly attract your attention early on December evenings. Brighter than any other planet, or any star, it sets behind the western horizon soon after 7 p.m. on Dec. 1, and about an hour later when the month ends.

Jupiter, high in the east, is about a third as bright as Venus, but well exceeds any star in brilliance. It's moving from Taurus into Aries, the next constellation to the west, and remains visible nearly until dawn.

Its splendor adds to the array of bright stars of the winter evening now on view in the western sky. The brightest is Sirius in Canis Major, low in the southwest and less than half Jupiter's brilliance. It's also dimmed by atmospheric absorption of its light, enhanced for a star so near the horizon.

Directly above Sirius stands the conspicuous constellation Orion, unique in having two first-magnitude stars. Rigel, the brighter, is toward the south and Betelgeuse, about half as bright, is to the north. Between them a vertical row of three stars forms the belt of the warrior this group supposedly pictures. Still higher is Taurus, where Jupiter stands early in the month. Its most prominent star is Aldebaran, which has a distinct reddish hue.

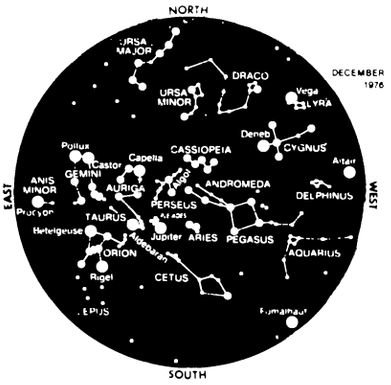
Aldebaran is in the eastern arm of a V-shaped loose cluster of stars called the Hyades. A little higher, north of Jupiter, is another well-known star cluster, called the Pleiades, which is somewhat more concentrated than the Hyades. A common name is the "seven sisters," even though only six stars can ordinarily be seen with the naked eye. However, if you look with a pair of binoculars, you'll see more.

To the left of Sirius and near the horizon in the east is Procyon in Canis Major. Directly above is Gemini (the twins) with Castor and Pollux as the brightest stars. Pollux, the lower, is first magnitude, while Castor, higher and a little fainter, is second magnitude. And above this group is Auriga, with Capella, almost as bright as Rigel.

Low in the northwest look for Cygnus, with Deneb. To the right and still lower is Lyra, with Vega, another star greatly dimmed by low altitude. Actually, it's the third brightest star generally visible from most of the United States.

To the west of Auriga is Perseus, containing the variable star Algol, and west of this stands Andromeda. If you look closely at this group on a dark, clear night, especially if aided by a pair of binoculars, you may see a hazy spot of light called the Andromeda galaxy. This is the most distant object visible to the naked eye. Its light takes more than two million years to reach us.

On Dec. 21 at 12:36 p.m., EST, the sun is farthest south for the year. Then it will stand directly over the Tropic of Capricorn at a point in the Pacific Ocean about 900 miles west of Antofogasta, Chile. This is called the solstice. In the Northern Hemisphere the sun's noon-day height is lowest, and the time from sunrise to sunset, the shortest. Its heating effect is least, so this marks the start of our winter. But south of the equator it reaches greatest altitude and daylight is longest of the year, so Dec. 21 is the start of summer. □



To use star map hold over head with directions oriented as indicated.

Dec.	2	5:20 pm EST	Algol (variable star in in Perseus) at minimum brightness
	3	1:00 pm	Moon farthest
	4	7:00 pm	Moon south of Jupiter
	6	1:15 pm	Full Moon
	11	4:00 pm	Moon south of Saturn
	14	5:14 am	Moon in last quarter
	17	1:20 am	Algol at minimum
	19	7:00 am	Moon nearest
	20	9:08 pm	New Moon
	21	12:36 pm	Beginning of winter (in Northern Hemisphere)
	22	7:00 pm	Algol at minimum
	24	10:00 am	Moon north of Venus
	28	2:48 am	Moon in first quarter
	31	4:00 am	Moon farthest

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