

Venus, which became visible low in the west at dusk late last summer and has been a dazzling "evening star" early this year, is still prominent on early March evenings. As the month begins, it sets about 9:15 p.m., more than three hours after sunset. But it's now approaching the sun and sets a little earlier each evening. When April arrives it will set well before the end of twilight and on April 6 will pass between sun and earth.

Two more planets are easily visible in the evening during all of March. About an eleventh as bright as Venus but still exceeding any star, Jupiter is in the west in Taurus. It sets at about midnight on the first and two hours earlier on the 31st. Saturn stands in Cancer, high overhead. With about a sixth of Jupiter's brilliance it's brighter than any star visible these evenings except Sirius.

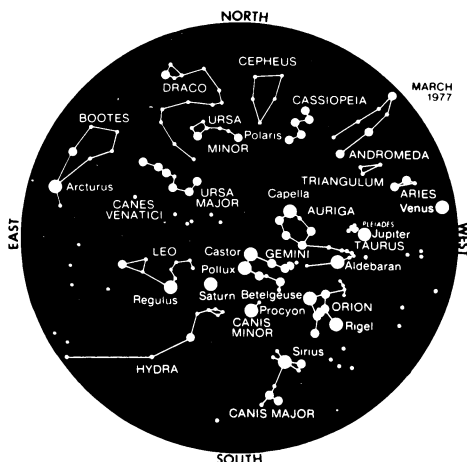
Most of the bright stars of March evenings appear in the west and southwest. Brightest is Sirius, sometimes called the "dog star," in Canis Major (the name means "great dog"). It's about three-quarters as bright as Jupiter. To its right is Orion, with Betelgeuse above and Rigel, which is brighter, nearer the horizon, below the three stars of Orion's belt. Farther right in the west, look for Taurus, where Jupiter can now be seen. Above the planet is the star Aldebaran.

Above Taurus are two prominent constellations. To the right is Auriga, with Capella, about as bright as Rigel. Gemini stands to the left, with Pollux its brightest star. To its north is Castor, about two-thirds as bright.

West of Gemini is the faint constellation of Cancer, now made prominent by

## MARCH STARS

BY JAMES STOKLEY



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

March 3	4:00 am EST	Moon south of Saturn
5	12:13 pm	Full Moon
8	6:00 pm	Moon nearest
12	6:35 am	Moon in last quarter
15	midnight	Mercury behind sun
17	7:00 am	Moon north of Mars
19	1:33 pm	New Moon
20	12:43 pm	Sun over equator, beginning of spring in Northern Hemisphere
21	8:00 am	Moon south of Venus
24	10:00 am	Moon south of Jupiter
	5:00 pm	Moon farthest
27	5:27 pm	Moon in first quarter
30	noon	Moon south of Saturn

• "Ten Who Dared"—BBC's historical series aired on consecutive Thursday nights. Remaining two episodes: March 10: Victorian Englishwoman Mary Kingsley lives with cannibals during her journey down African rivers; March 17: Roald Amundsen's successful trip to the South Pole in 1911.

• March 8 (PBS)—"The Volga" river nurtured the growth of the Russian nation, and the soul of the Russian people are forever entwined with the history of their homeland. National Geographic's cameras follow the mighty Volga and present a rare view of Russia and her people.

• March 8 (PBS)—"Troubled Waters," hosted by Philippe Cousteau, is an investigation of waterways threatened by man-made pollution.

• March 9 (PBS) NOVA—"The Pill for the People" traces the over-60-year history of birth control pill research and, 20 years after the pill's inception, concludes that it may not be the answer to the world's population problems.

• March 16 (PBS) NOVA—"The Gene Engineers" examines the potentials of genetic engineering—the transfer of genes from one living being to another. Could

## MEDIA

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it mean the end of birth defects or could it herald the beginning of Huxley's *Brave New World*?

the presence of Saturn. Still farther west is the fine group of Leo with Regulus, which is between Castor and Pollux in brilliance. And below Leo, near the eastern horizon, is Virgo with Spica at the bottom, greatly dimmed by its low altitude and hard to locate. Actually it's brighter than Regulus, as can be seen later in the night, when it has risen higher in the eastern sky.

Astronomers measure the brightness of a star or planet by its magnitude (the higher the number, the fainter the object). In a clear, dark sky you can just about see stars of the sixth magnitude, but you won't be able to do so from a city location. Here you'll be lucky to see fourth-magnitude stars.

A first-magnitude star is exactly a hundred times as bright as one of the sixth. The first magnitude includes stars between 0.5 and 1.5. Sirius is nine times as bright as a typical first-magnitude object, so we go to negative numbers and rate it at  $-1.4$ . On this scale the sun, some ten billion times as bright as Sirius, has a magnitude of  $-26.7$ . At the same distance Sirius would look 23 times as bright. The magnitude of Venus is  $-4.3$  on March 1 and  $-3.3$  at the month's end.

After our record-breaking cold winter, a welcome event will come on March 20 at 12:43 p.m., EST. This is the vernal equinox, the beginning of spring in the Northern Hemisphere. At that moment the sun will stand directly above the equator, at a point in the Pacific Ocean about 400 miles west of the coast of Ecuador. In countries in the Southern Hemisphere, where the seasons are the reverse of ours, this will be the beginning of autumn. □

• March 22 (PBS)—"Population Time Bomb" poses a warning to the world by pointing out worsening population stresses and struggles for survival occurring in Central America. Hosted by Philippe Cousteau.

• March 23 (PBS) NOVA—"The Woman Rebel" dramatizes the life of Margaret Sanger, the woman most responsible for the changes brought about in American society with the advent of the birth control pill.

• March 29 (PBS)—"The Incredible Machine (R)

• March 29 (PBS)—"The Power Game" offers some disturbing and some hopeful news for the planet concerning long- and short-term energy options.

• March 30 (PBS) NOVA—"The Human Animal" attempts to answer some age old questions that are basic to man's understanding of himself: How much of human behavior is inherited? How much do we have in common with the rest of the animal kingdom? Has heredity determined a woman's place in society? In short, how much of human behavior is programmed? E. O. Wilson, author of *Sociobiology: The New Synthesis* (SN: 11/29/75, p. 347), claims a new science is being born.