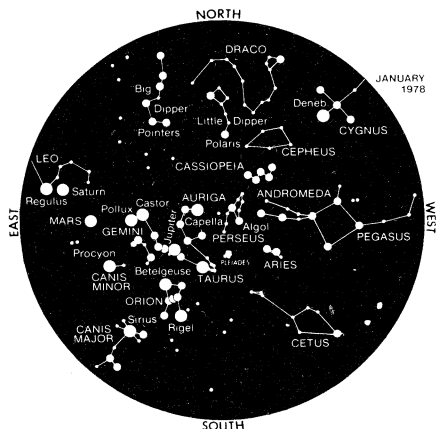


JANUARY STARS

BY JAMES STOKLEY



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

Jan. 1	6:00 pm	Earth nearest sun
2	7:07 am	Moon in last quarter
8	7:00 pm	Moon nearest
	11:00 pm	New Moon
13	8:40 pm	Algal at minimum
15	10:03 pm	Moon in first quarter
20	9:00 pm	Moon farthest
21	7:00 pm	Mars opposite sun
24	2:55 am	Full moon
26	7:00 am	Moon passes south of Saturn
31	6:51 pm	Moon in last quarter

Three brilliant planets have joined the assemblage of prominent stars which normally appear in the east and the south on January evenings.

Most conspicuous of these planets is Jupiter, almost directly overhead. During the month its westward movement takes it from Gemini into Taurus. Below Gemini is Cancer, location of red-orange Mars which is less than a third as bright as Jupiter. Still lower, in Leo, you'll find Saturn, about a quarter the brilliancy of Mars. Beneath it is Regulus, the brightest star in Leo, which is less than half as bright as Saturn. Both star and planet are dimmed by their low altitudes.

Sirius, the brightest star, is in the southeast in Canis Major, and is even brighter than Mars. To the left and a little higher is Canis Minor with Procyon. Above it look for Gemini with first-magnitude Pollux and Castor, slightly fainter. Next door, in Taurus, is reddish Aldebaran.

Below Jupiter, toward the south, is Orion with two first-magnitude stars. The lower one is Rigel, fourth brightest star generally visible from the United States. Higher in the group and about half as bright is Betelgeuse. Between these two stands Orion's belt, a row of three fainter orbs. Just northwest of Jupiter is Auriga, with Capella, about 10 percent fainter than Rigel.

Pollux, Capella, Aldebaran, Rigel, Sirius and Procyon form an irregular hexagon around Betelgeuse. In no other part of the sky are so many stars of the first magnitude contained in so small an area. In fact, there may even be another in this same region. The brightest of the little group of four stars below Sirius (the one toward the south point of the horizon) is called Adhara. Earlier star catalogs listed it around magnitude 1.6, which would make it second magnitude but there is a tendency in modern publications, as a result of more precise measurements, to rate it at 1.49 or lower, thus putting it in the first magnitude. This would mean that there are 22 first-magnitude stars in the whole sky, not 21, as often stated. Some of these are too far south to be visible from the United States.

Mars swings around the sun every 687 days and the earth every 365 and one-fourth days, so that once every 780 days we catch up to it and pass it, as we are doing now. It is directly opposite the sun on Jan. 21 and closest to the earth for that particular revolution. It will then be 60.7 million miles from us. The next opposition will come in February 1980, with a distance of 62.6 million miles.

Of the other planets that may be visible to the naked eye, Mercury is farthest west of the sun on the 11th. About that time you may be able to see it low in the southeast

just before the sun rises. Venus passes behind the sun on Jan. 27, and will not be visible this month. Later in the year, however, it will be shining brilliantly in the western evening sky soon after sunset. □

... but the stars go on

On Oct. 2, 1926, the first printed issue of *SCIENCE NEWS-LETTER* appeared, destined to become *SCIENCE NEWS* on March 2, 1966. (Since its birth on March 13, 1922, it had consisted only of mimeographed pages, following its "real" birth on April 2, 1921 as a newspaper service known as *SCIENCE NEWS BULLETIN*.) One of the features in that first printed issue was a map of the stars for the month, prepared by a 26-year-old Philadelphia astronomer named James Stokley.

With this issue of *SCIENCE NEWS*, that feature is being discontinued, both because of the more comprehensive maps now published elsewhere and because the growing press of events in the sciences (including astronomy) continually strains our limited page space. Over the intervening years, Stokley's yeoman effort, appearing in these pages for more than half a century, has become one of the longest-running regular journalistic features in publishing history.

Stokley's article accompanying that original map focused on the planet Mars,

including the then-tolerable idea of "canals" on its surface, with reference to the then-current photos of the planet by such astronomers as R. J. Trumpler, W. H. Pickering and E. C. Slipher. "This does not necessarily prove them to be artificial," Stokley wrote, "and the general idea is that they are due to some unknown, but natural cause." That insight would wait nearly four decades, until the era of interplanetary spacecraft, for verification.

A glance through that same, now-yellowed issue reveals a fascinating potpourri of developments in science at the time, narrowed down to a single week's reportage:

- From the meeting of the Association of German Natural Scientists and Physicians in Duesseldorf came an account of a "miracle of modern surgery" in which patients apparently dead of lung paralysis and heart stoppage were restored by a combination of artificial respiration and open-chest heart-massage.

- Another "sensation" was created at the same meeting with the announcement of a drug called "Plasmochin," claimed to be a "synthetic rival to quinine" in the treatment of malaria.

- "The poison of the hemp plant, important both in legitimate medicine and in drug addictions under the name of hasheesh or bhang," was extracted in a uniform potency (using "petrol ether") by a researcher who claimed that "one-tenth of a cubic centimeter of this extract, or about two drops, will kill a laboratory mouse."

- Science Service's first director, Edwin E. Slosson, reported a prediction by American Chemical Society president James F. Norris that a variety of foods, including ice cream, would some day be capable of being manufactured from petroleum. "It is unfortunate," wrote Slosson, "that we should come to realize the possibilities of petroleum only now, when the Government Oil Commission announces that the known oil reserves of the United States will last only six years at the present rate of consumption."

The price of a year's subscription to *SCIENCE NEWS-LETTER*, by the way, was \$5.00. Today it is \$12.50, and not long ago was just \$10.00. Compare those figures with the increase in price of, say, lunch.

Star maps such as Stokley's are still the useful, simplified tool they were then for looking at the skies. The growth of all the sciences, however, has inevitably included astronomy, geophysics, chemistry, meteorology, physics and other fields applicable to the newly accessible data beyond. The lights in the sky are still there — it is their meaning that has grown.

—E. G. Sherburne
Publisher