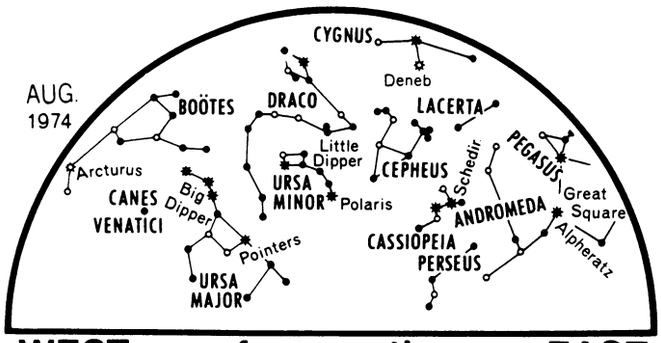
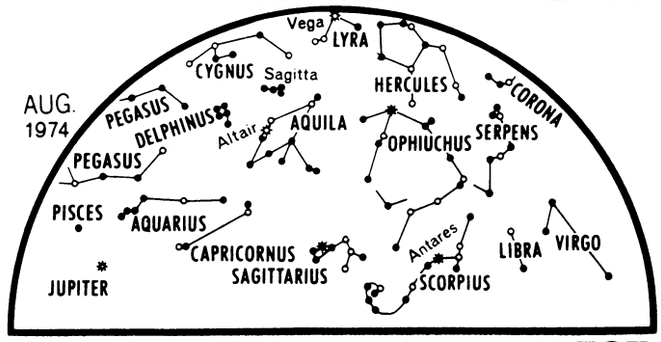
Stars of August





Symbols for stars in order of brightness

CELESTIAL TIME TABLE

August	2	9:00 pm EDT	Moon farthest, distance 252,500 miles
		11:57 pm	Full Moon
	6	6:00 am	Moon passes north of Jupiter
	10	10:46 pm	Moon in last quarter
	12	early am	Perseid meteors at maximum
	14	11:00 pm	Moon passes south of Saturn
	16	5:00 am	Moon passes south of Venus
	17	3:00 am	Moon nearest, distance 222,200 miles
		6:00 am	Mercury behind sun
		3:02 pm	New Moon
	19	2:00 am	Moon passes south of Mars
	24	11:38 am	Moon in first quarter
	30	1:00 am	Moon farthest, distance 252,270 miles

by James Stokley

Mid-August is the time for one of the most regular displays of meteors or "shooting stars." Often, however, the moon is at or near full at the time the meteors are most numerous, about Aug. 12. Then its bright glare reduces greatly the number that you can see. But in 1974 the last quarter phase of the moon comes on the tenth and it will rise about 12:30 a.m. on the 12th.

Some meteors are sporadic but most of them seem to come from the constellation of Perseus, which is low in the northeast on August evenings. This is called, therefore, the Perseid meteor shower.

An effect of perspective makes their paths seem to converge in Perseus, as it makes the parallel tracks of a railroad seem to come together at the horizon. Small particles, or "meteoroids," which are the debris of a comet last seen in 1862, move around the sun in the old cometary orbit. Many of them are about as large as grains of sand and their path intersects the orbit of the earth at its Aug. 12 position.

When we get to that part of our orbit many of the meteoroids enter our atmosphere, where friction burns them up, causing the streak of light that we call a "shooting star." Meteors are most numerous after midnight, because then we are on the forward side of the earth and meet the meteoroids head-on. Before midnight only those which can catch up to earth reach our atmosphere.

Actually it takes several weeks to pass through the whole swarm—from about July 25 to August 18. For several days around the maximum, you may see as many as a quarter of the number you would on the 12th, if you have favorable conditions. So if it's cloudy on the night of the 11th, you might try again the following night. Or start looking for them on the night of the 10th.

Five stars of the first magnitude or brighter appear on our star maps (which show the sky as it looks about 11:00 p.m., local daylight saving time, on the 1st; 10:00 p.m. on the 15th and 9:00 p.m. on the 31st). □

New Products

Products are selected and listed as an editorial service. The claims are the manufacturers'. For further information circle appropriate number on the postpaid, self-addressed Reader Service Card.

Research and educational equipment catalog includes helium-neon lasers, education packages, optical benches and accessories, and expanded offerings in the field of holography. New in this edition is a selection of compatible accessory and experiment kits, each with experiment manual.

Meterologic Instrument, Inc.
Circle No. 147 on Reader Service Card

Soil analysis equipment catalog provides information on apparatus for soil analysis and plant tissue testing. Chemical test outfits cover 18 major, minor and trace soil elements. The free catalog lists products for measurement of pH, dissolved salts in soils, organic matter content and soil texture classifications, as well as special equipment for greenhouse plant production, hydroponic operations, and environmental science field trips.

La Motte Chemical
Circle No. 148 on Reader Service Card

Microperforated electroplate combines advantages of coarse- and fine-mesh properties in stainless steel sheet. A production method allows microperforation in thin stainless steel without destroying its metallic strength. For use in the aircraft and industrial areas, the mesh screens come in: .001″ thick, porous; .004″ thick, low porosity; .002″ thick, high porosity; and .002″ thick.

Perforated Products, Inc.
Circle No. 74 on Reader Service Card

Nuclear rate meter introduces nuclear concepts to the classroom. The radiation detector is a beta- and gamma-sensitive Geiger-Muller tube which the manufacturer claims cannot be damaged by high-intensity radiation. Radiation intensity is indicated by a stabilized meter and through an audio signal that can be heard throughout the classroom.

Union Carbide Corp.
Circle No. 149 on Reader Service Card

Microscope projector for classroom, laboratory and industry projects an image onto a built-in screen with 200 power magnification. The image can be viewed at normal light levels without darkening the room.

ART Originals Ltd.
Circle No. 145 on Reader Service Card

Magnetic visual control board features magnets and magnetic cardholders on a grid-lined board mounted on sturdy wheels for mobility. The unit can help plan, organize, control, and visually present information needs in a variety of applications such as personnel control, project planning, production control and scheduling.

Methods Research Corp.
Circle No. 146 on Reader Service Card