



URSA MAJOR, or the Big Dipper, is probably the best known constellation in the northern hemisphere. The two stars at the end of the dipper point to Polaris, the north star. The object at the bend in the handle is a fine example of a visual double star.



CASSIOPEIA looks like a giant "W" in the northern sky. Since it is positioned on the opposite side of Polaris from the Big Dipper, it also serves to locate the north star.

Vitessa: f/2.0 35 seconds



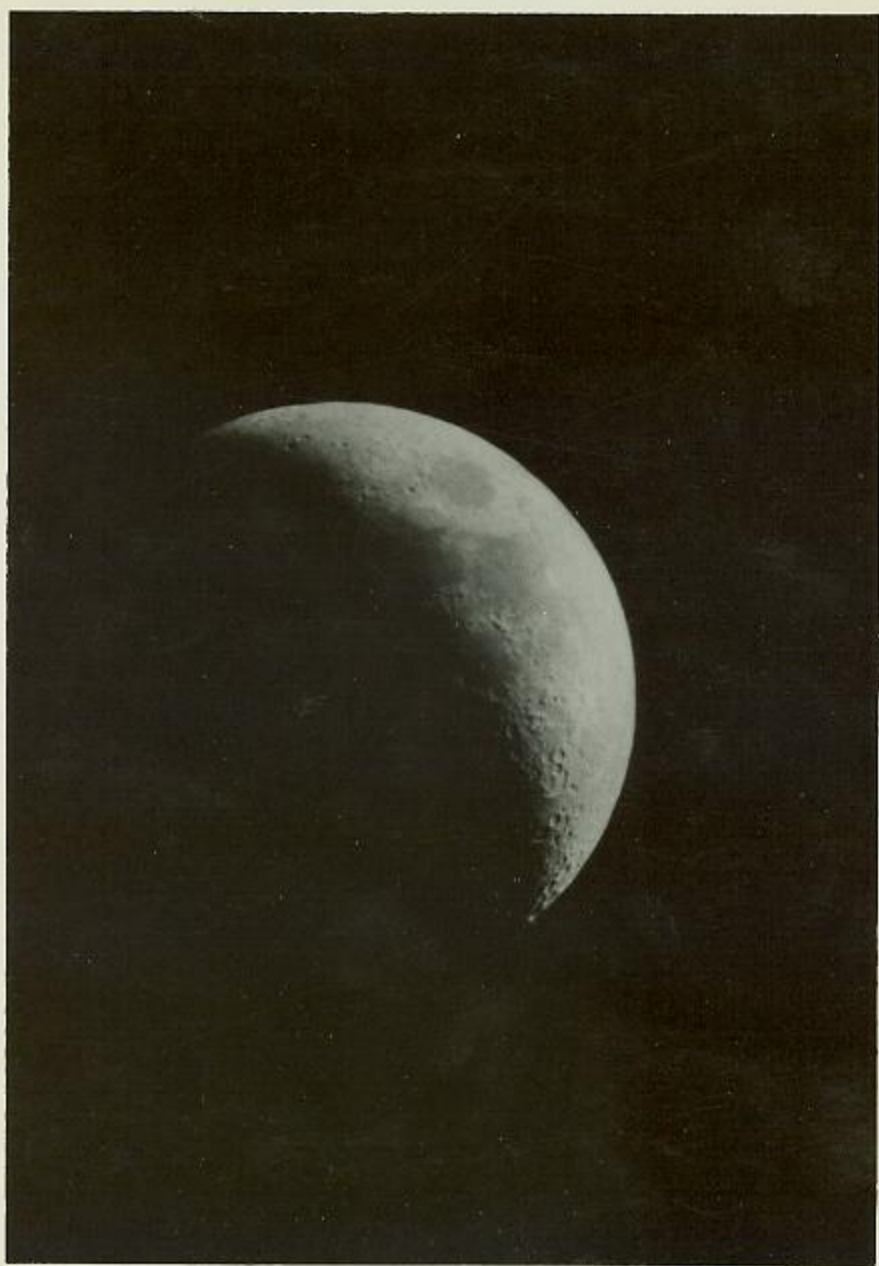
Looking toward the center of our galaxy --  
THE MILKY WAY.

Vitessa: f/2.0 3 minutes



The most majestic constellation in the winter sky is ORION. The bright red star in the upper left is Betelgeuse, a supergiant. This is an irregular variable star, whose diameter changes between 330 and 460 times that of our sun. The Great Nebula surrounds the northern star in Orion's belt, and is plainly visible to the naked eye as a hazy object.

Rolleicord: f/3.5 45 seconds



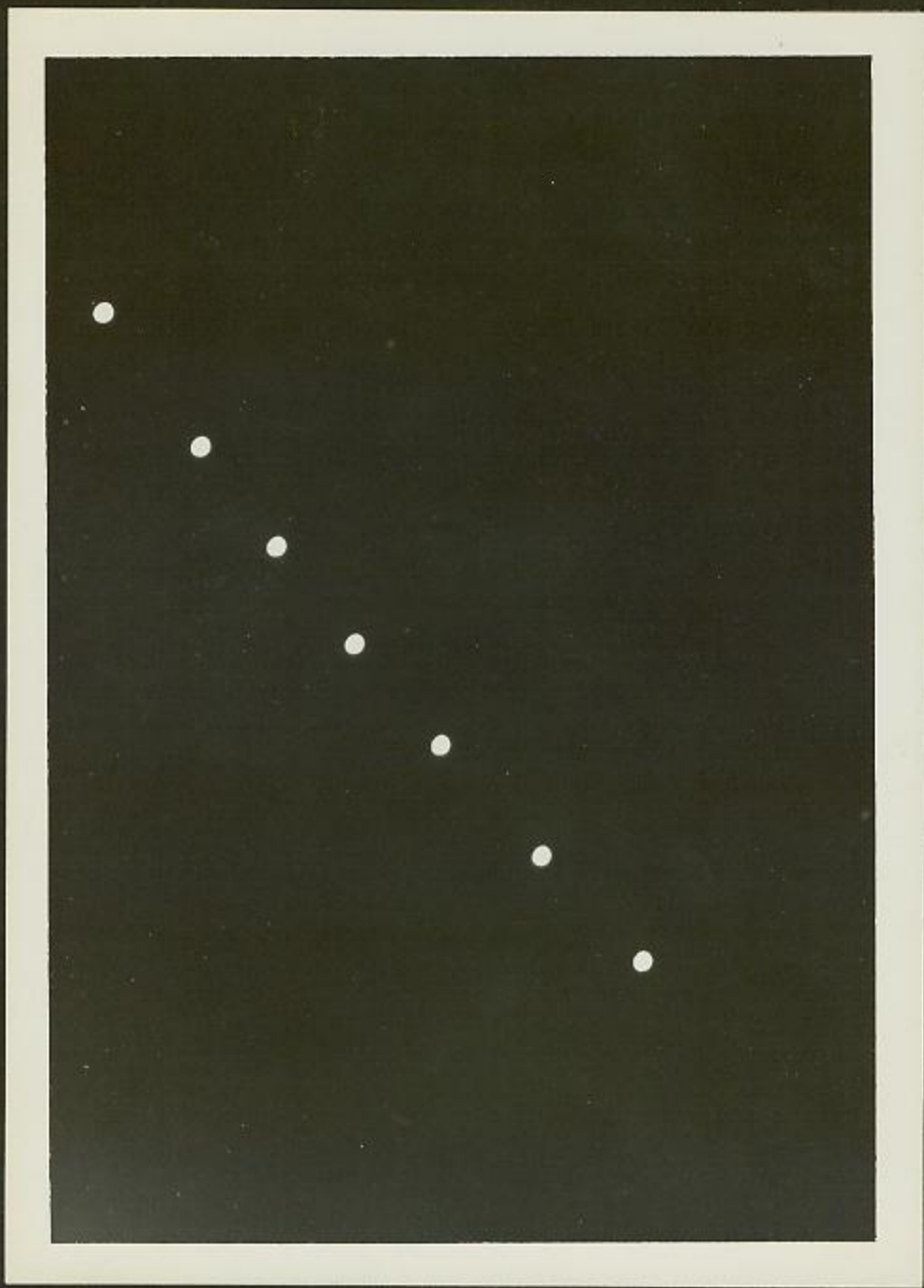
Five days old, the MOON is nearing its first quarter. The craters are most prominent near the terminator, where the sun casts long shadows.

Minolta SR-7, 2 $\frac{1}{2}$  inch telescope, f/15.0 1/60 second



The full MOON, an object of superstition and mystery, is a breathtaking sight. Its many Mares are clearly evident.

Minolta SR-7, 2 $\frac{1}{2}$  inch telescope, f/15.0 1/250 sec.



The rapid movement of the MOON is demonstrated by this multi-exposure photograph. These seven exposures were taken at 15 minute intervals. As with the stars, the moon's apparent motion is due to the rotation of the Earth.

Rolleicord: f/11.0 1/100 second



The MOON, as seen through a telescope, is a beautiful sight. This photograph was taken one day after full moon. It is believed the the crater Tycho was formed less than a million years ago, and its relative youth is the reason for its prominent rays. The dark area (or Mare) at the lower portion of this picture is commonly known as the Sea of Tranquillity -- a possible Apollo landing sight.

Minolta SR-7,  $2\frac{1}{2}$  inch telescope with 2x Barlow,  
f/30.0 1/30 second



THE PLEIADES is an open star cluster clearly visible to the naked eye. Shaped like a small dipper, this beautiful cluster is 430 light-years away. It is part of the constellation "Taurus".

Rolleicord: f/3.5 40 seconds



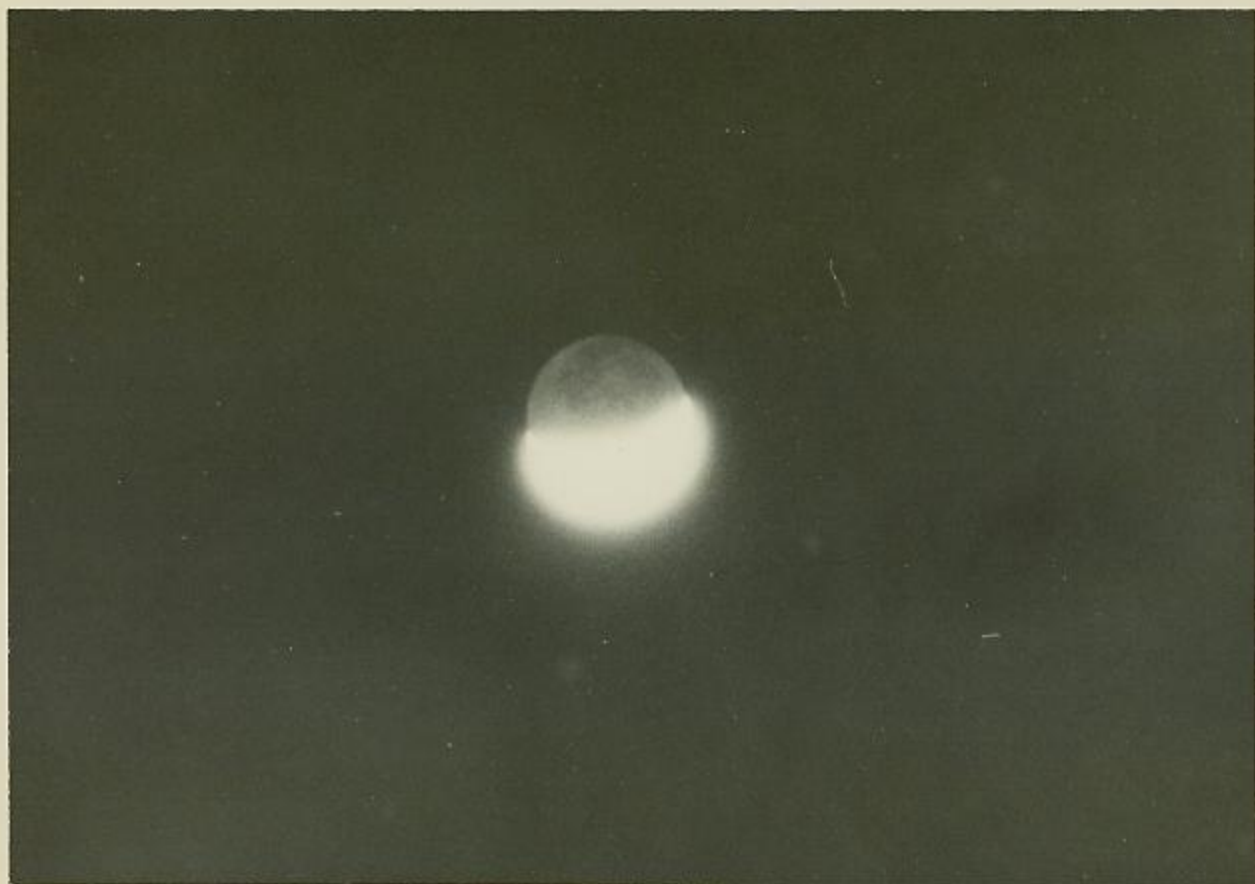
Six days old, the MOON is almost at its first quarter.

Minolta SR-7, 2 $\frac{1}{2}$  inch telescope, f/15.0 1/125 sec.



While not a very well known constellation, CANIS MAJOR contains Sirius, the brightest star in the sky. It lies close to the equator, and can be seen from both the northern and southern hemisphere.

Rolleicord: f/3.5 40 seconds



By overexposing the crescent moon, the unilluminated portion can be seen. The relatively small amount of light which makes this portion visible is reflected from the Earth.

Minolta SR-7, 2 $\frac{1}{2}$  inch telescope, f/15 1 second



JUPITER is the largest planet in our solar system, having a diameter about 11 times that of our Earth. It has 12 moons, 4 of which can readily be seen with a small telescope. They are, however, too faint to be photographed using a 2½ inch telescope without a clock drive.

Minolta SR-7, 2½ inch telescope with 2x Barlow,  
f/30.0 1/8 second



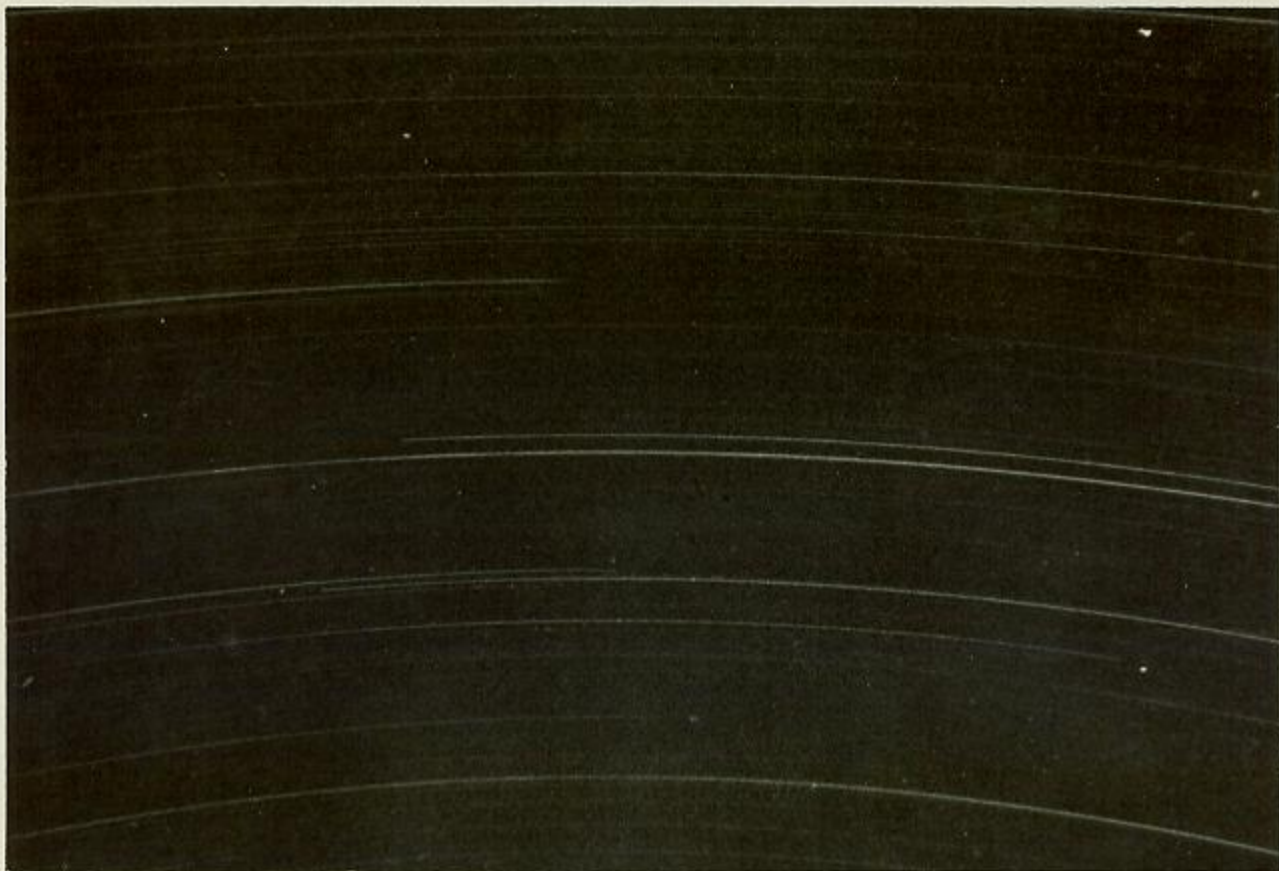
A man-made satellite appears in the sky.

Vitessa: f/2.0 2 minutes



STAR TRAILS of the northern sky show Polaris to be nearly stationary, since it is close to the celestial pole.

Rolleicord: f/3.5 35 minutes



STAR TRAILS of the high southern sky show as almost straight lines. Since their relative motion is large due to the Earth's rotation, long trails can be obtained with moderate exposures.

Kodak 35: f/4.5 4 hours



The planet VENUS is the second brightest object in the nighttime sky. Because its orbit lies between the Earth and our Sun, it is only seen shortly after sunset or just before sunrise. While not apparent to the naked eye, a telescopic observation shows that Venus has phases like our Moon.

Minolta SR-7, 2½ inch telescope with 2x Barlow,  
f/30.0 1/125 second



At 12 days old, the MOON is approaching its full phase.

Minolta SR-7, 2 $\frac{1}{2}$  inch telescope, f/15,0 1/250 sec.