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Astronomy Bulletin - The Night Sky: December 13 to February 13, 1993

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The Night Sky
December 13 to February 13, 1993

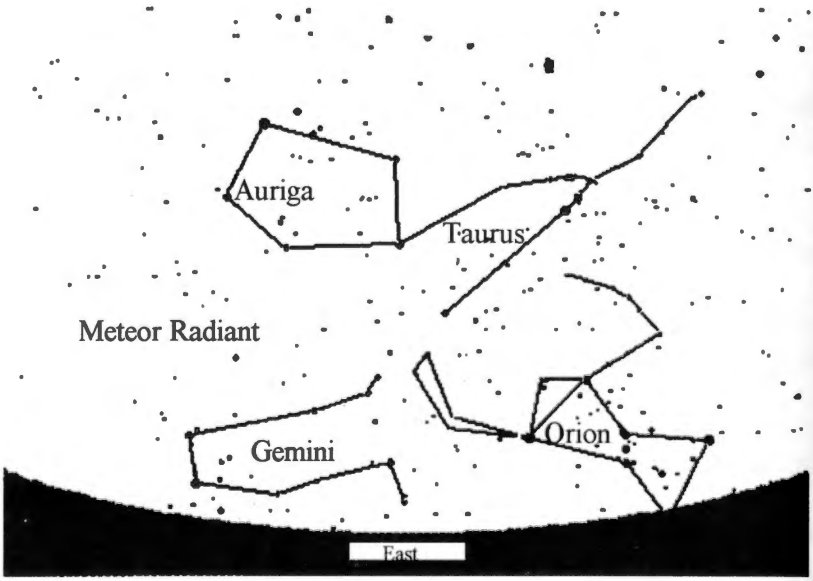

Figure 1
December 13, 1993
7:00 PM

Figure 1: On the evening of December 13 and in the early morning hours of December 14, meteors of the Geminid meteor shower may be seen. The meteors will appear to radiate from the constellation Gemini. This shower usually produces approximately 50 meteors per hour. The Moon on this date is new and will set at 5:20 PM and, therefore, will not hinder meteor observations.

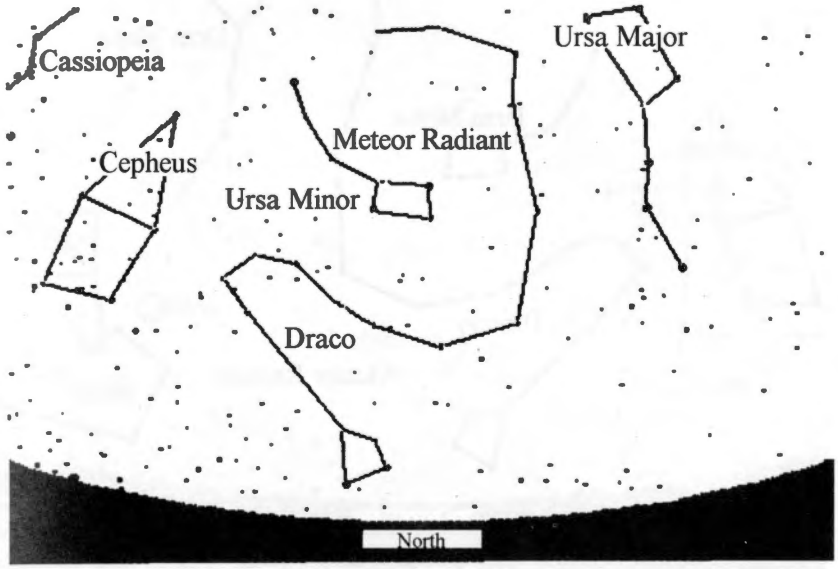

Figure 2
December 22,1993
1:00 AM

Figure 2: Early in the morning on December 22, the Ursids meteor shower may be visible. Under a dark, clear sky, this shower will produce about 15 meteors per hour. The meteors will appear to originate from a point near the Little Dipper in the constellation Ursa Minor. The Moon at this time is in the waxing gibbous phase and is a little more than half illuminated. The Moon will set at 1:36 AM in the west and will not interfere with observations after that time.

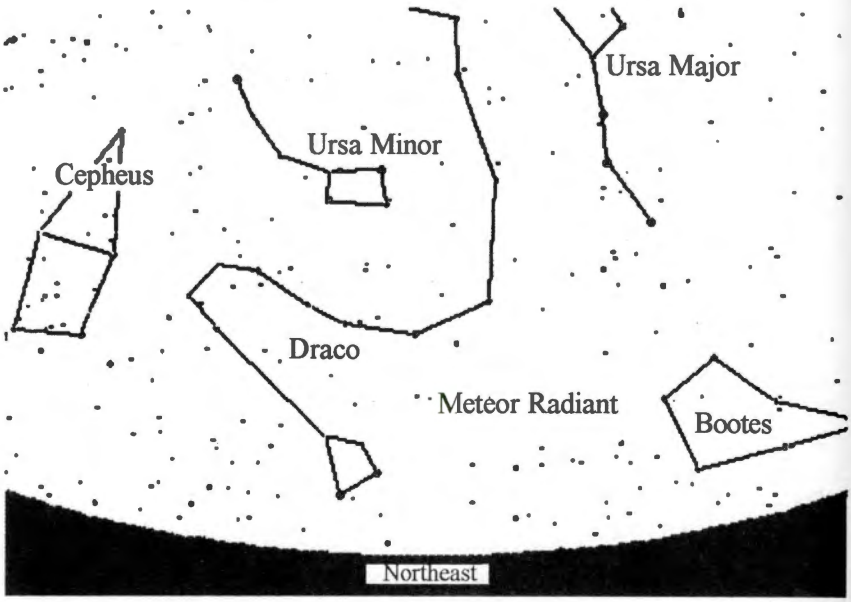

Figure 3
January 3, 1994
1:00 AM

Figure 3: On January 3, yet another meteor shower, the Quadrantids, will be visible. The meteors of this shower appear to radiate from a point between the constellations Draco and Bootes. Approximately 40 meteors per hour are usually produced. The Moon, in the waning gibbous phase (illuminated 69 percent), will rise in the southeast at 11:46 PM on the night of January 2. Because of this, all but the brightest meteors will be difficult to see.

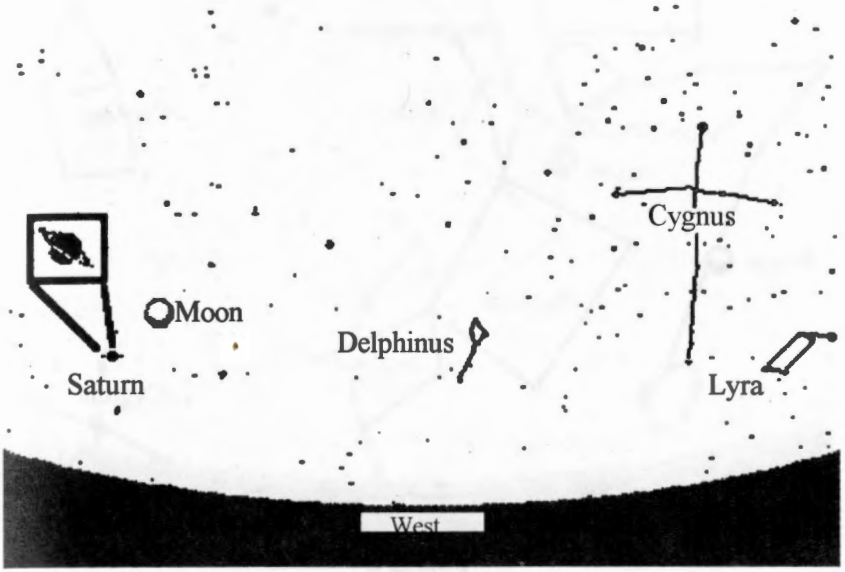

Figure 4
January 14, 1994
6:45 PM

Figure 4: Early in the evening on January 14, the Moon and *Saturn* will be visible low in the southwest. The Moon, which is in the waxing crescent phase, is illuminated only 10 percent. A pair of binoculars may be necessary to see the Moon before it sets at 8:25 PM. Saturn is located about 7° to the lower left (11° above the horizon) of the Moon. The insert on Figure 4 shows the approximate orientation of Saturn's rings as they would appear through a small telescope.

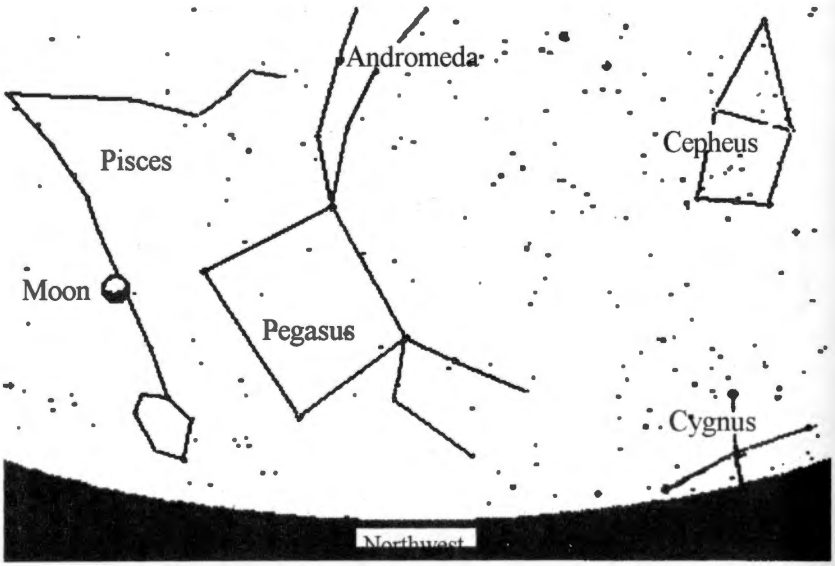

Figure 5
January 17, 1994
9:30 PM

Figure 5: On the night of January 17, the Moon will be visible in the constellation Pisces 20° above the western horizon. The Moon is in the waxing crescent phase (illuminated 34 percent) and will set at 11:23 PM. The Sun will rise at 7:39 AM and set at 5:11 PM.

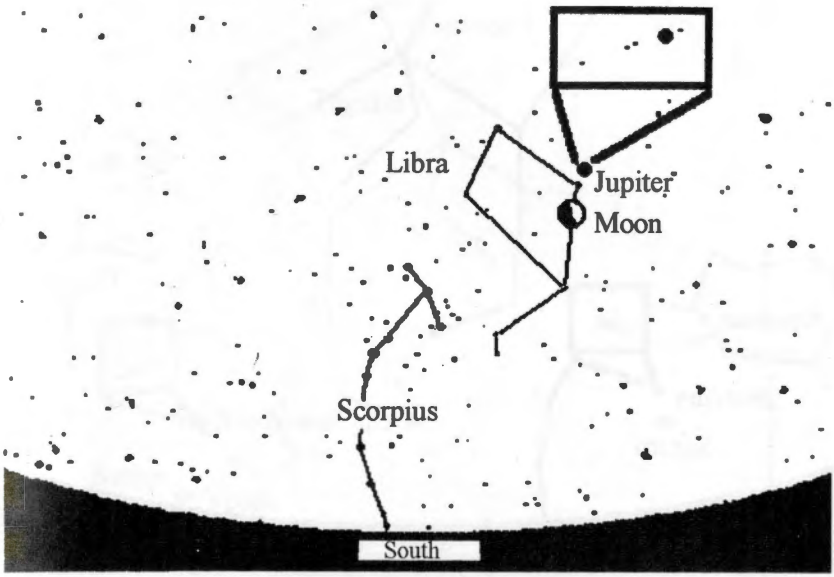

Figure 6
February 3, 1994
6:00 AM

Figure 6: Early in the morning of February 3, the Moon and *Jupiter* may be seen relatively close together. The Moon is 30° above the southern horizon and Jupiter is about 5° above the Moon. The insert box shows Jupiter and the approximate orientation of its four Galilian satellites as they would appear through a small telescope. The Moon is in the last-quarter phase and is illuminated 48 percent. The Sun will rise at 7:24 AM and set at 5:32 PM.

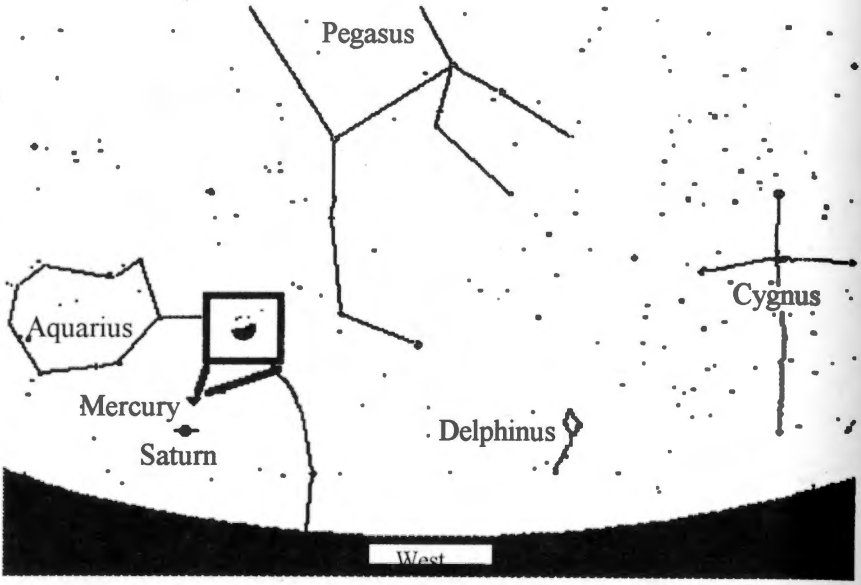

Figure 7
February 3, 1994
6:00 PM

Figure 7: Early in the evening on February 3, *Saturn* and *Mercury* may be seen relatively close together. Saturn is approximately 8° above the western horizon and Mercury is illuminated approximately 57 percent. A pair of binoculars may be needed to see these two planets this close to the horizon.

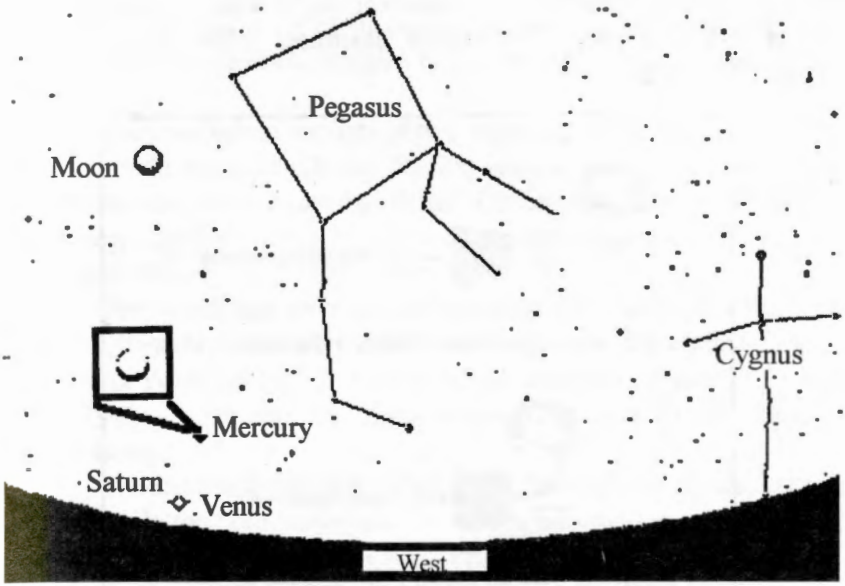

Figure 8
February 13, 1994
6:00 PM

Figure 8: Early in the evening of February 13, the Moon and three planets may be seen. Very low to the horizon and in close proximity are *Saturn* and *Venus*. These two planets are located within 0.1° of one another, but they are only 2° above the horizon. Although the probability of seeing them so close to the horizon is low, they may be seen through binoculars under excellent viewing conditions. *Mercury*, illuminated only 12 percent, is located about 6° above Saturn and Venus. The insert shows how Mercury would appear through a telescope. Approximately 33° above the horizon, the Moon is in the waxing crescent phase and is illuminated only 11 percent. The Sun will rise at 7:12 AM and set at 5:45 PM.