

1993

Astronomy Bulletin - The Night Sky: May 15 to October 31, 1993

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The Night Sky May 15 to October 31, 1993

Figure 1: Early in the morning on June 16 it will be possible to see the Moon located only 5° from *Venus*. The moon is illuminated only 14 percent and may be difficult to see in the bright dawn. The Moon will set at 5:45 PM. Through a small telescope, Venus will appear to be illuminated 52 percent (on May 17 Venus was illuminated only 34 percent.)

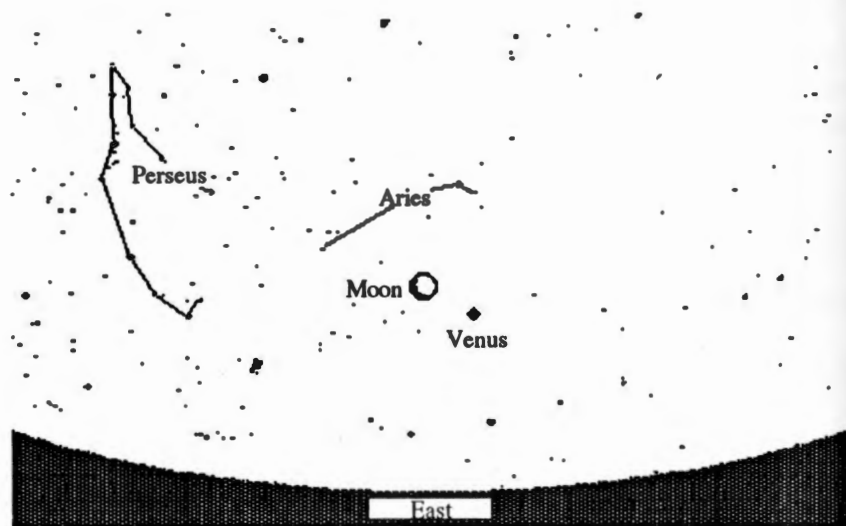


Figure 1
June 16, 1993
5:00 AM

Figure 2: On the night of June 24, the Moon and three planets may be seen. The Moon will be located approximately 30° above the western horizon, and it is illuminated 29 percent. The Moon will set at 11:49 PM. About 28° to the upper-left of the Moon is *Jupiter*. Just to the right of the Moon is *Mars*. To the lower-right of Moon and Mars, close to the horizon (12°), is *Mercury*. It may be difficult to see Mercury because of the bright twilight. The insert box shows how Mercury would appear if viewed through a telescope. Mercury is illuminated only 25 percent.

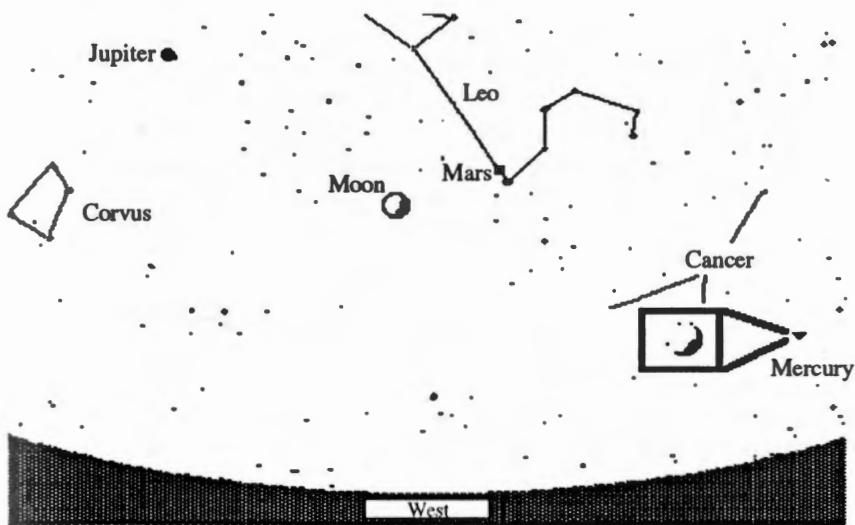


Figure 2
June 24, 1993
9:00 PM

Figure 3: At midnight on July 8 the Moon and Saturn will be visible in the southeast. Saturn is only 8° to the lower-right of the Moon. The Moon is illuminated 83 percent, and it will set at 10:36 AM.

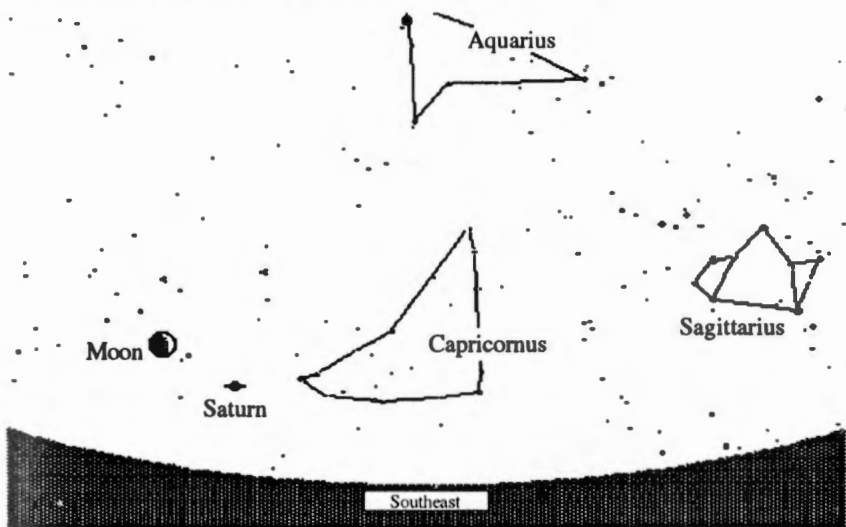


Figure 3
July 8, 1993
12:00 AM

Figure 4: Early in the morning on July 28, meteors of the Delta Aquarid meteor shower may be seen. This shower usually produces around 20 meteors per hour. The meteors will appear to come, or radiate from a point between Aquarius and Capricornus (see "meteor radiant" on Figure 6.) This shower will peak around 5:00 AM, but some meteors may be seen before and after this time. Some meteors may also be seen a night or two before and after July 28, but the rate may be much lower. The Moon sets at 1:29 AM, and after this it will not interfere with meteor observations.

Figure 5: Early in the evening on August 6, *Venus* and *Mercury* may be seen. Venus is illuminated 74 percent. The insert box shows how Venus would appear in a small telescope. Mercury is low (13° above the horizon), about 20° below Venus. Mercury is illuminated approximately 48 percent. The insert box shows how Mercury would look through a telescope.

Figure 6: Perhaps the best known meteor shower of the year peaks on the night of August 11. This meteor shower, known as the Perseids, usually produces about 50 meteors per hour. The radiant for this meteor shower is in the constellation Perseus. The Moon (illuminated 35 percent) rises at 12:53 AM, and in nearly the same direction of the radiant. For this reason, the best meteor observing will be before the Moon rises.

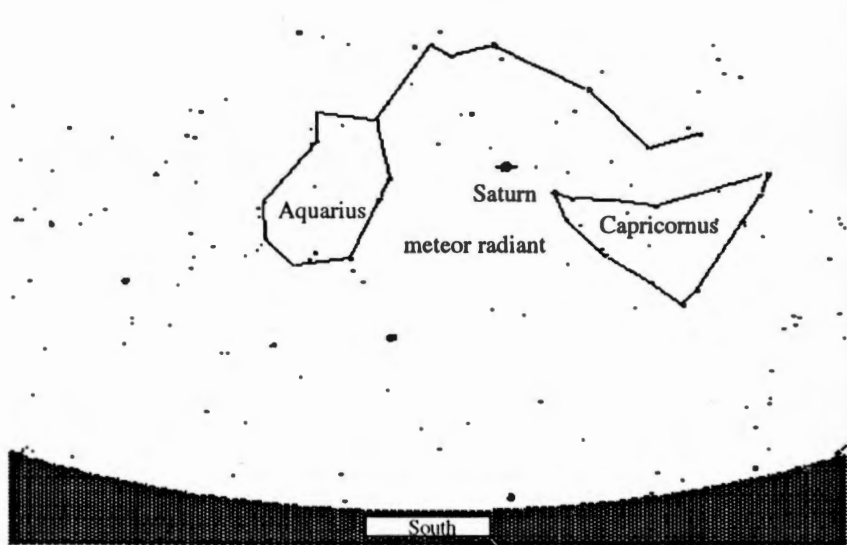


Figure 4
July 28, 1993
3:00 AM

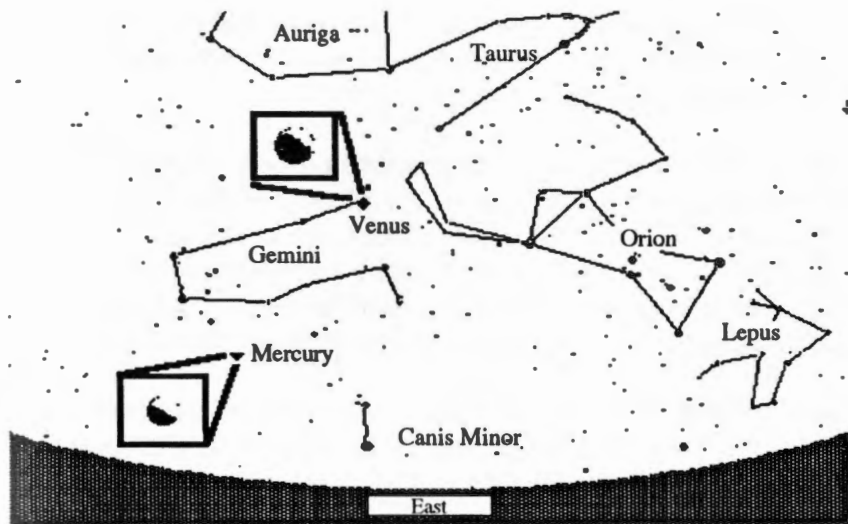


Figure 5
 August 6, 1993
 6:00 AM

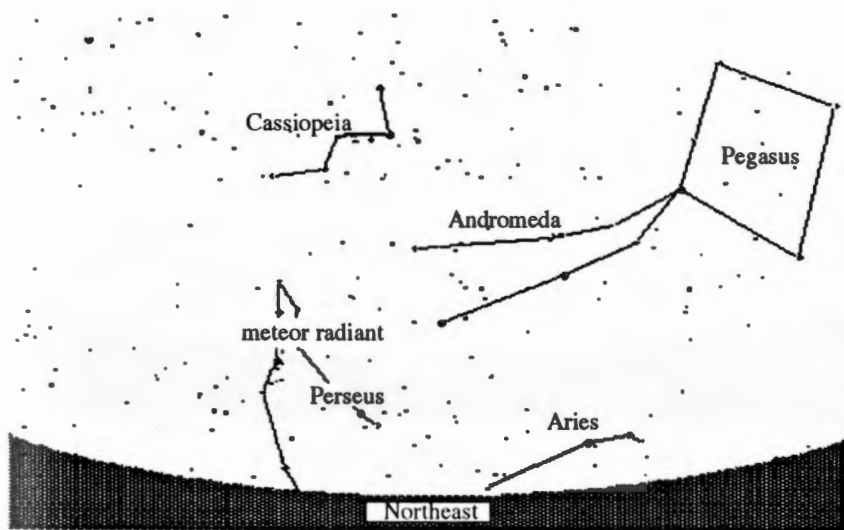


Figure 6
 August 11, 1993
 11:00 PM

Figure 7: On the night of September 5, *Jupiter* and *Mars* will be located in the constellation *Virgo*. *Jupiter* is located about 10° above the horizon. *Mars* is located only 1° below *Jupiter*.

Figure 8: Early in the evening on September 18, a viewer facing southwest may see the Moon and three planets. The Moon is located 12° above the southwestern horizon. The Moon appears as a thin crescent as it is illuminated only 12 percent. Just to the right of the Moon is the planet *Mars*. *Jupiter* is just 6° to the right of *Mars*. *Mercury* is just to the lower-right of *Jupiter*. A pair of binoculars may be necessary to see *Mercury*.

Figure 9: On the night of September 27, the moon and *Saturn* will be visible. The nearly full Moon is about 26° above the southeastern horizon. *Saturn* is just to the right of the Moon. The insert box shows how *Saturn*'s rings would appear in a telescope.

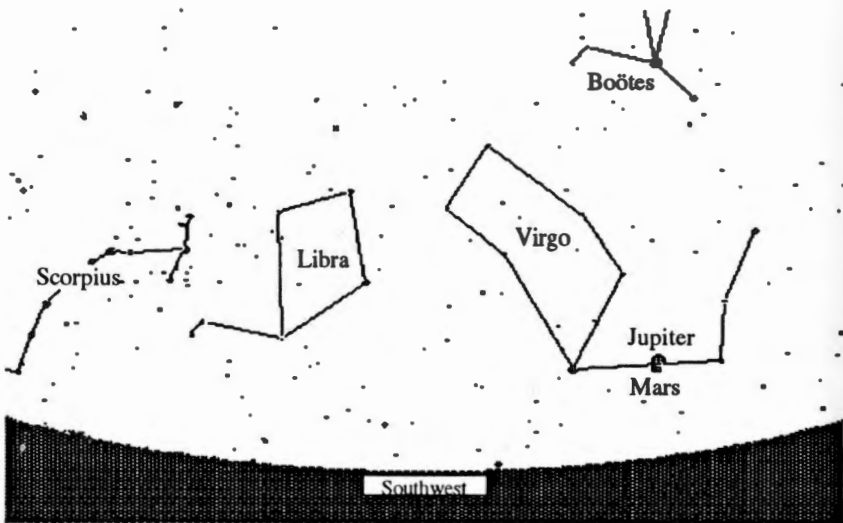


Figure 7
September 5, 1993
8:00 PM

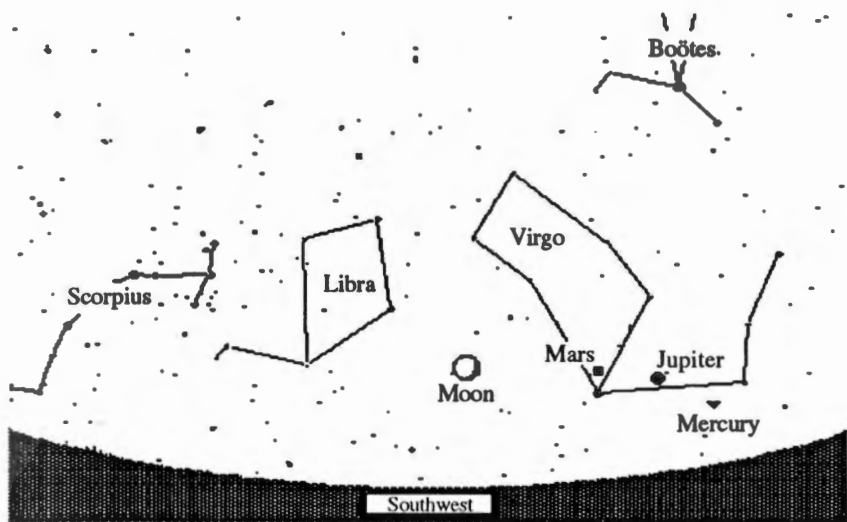


Figure 8
 September 18, 1993
 7:15 PM

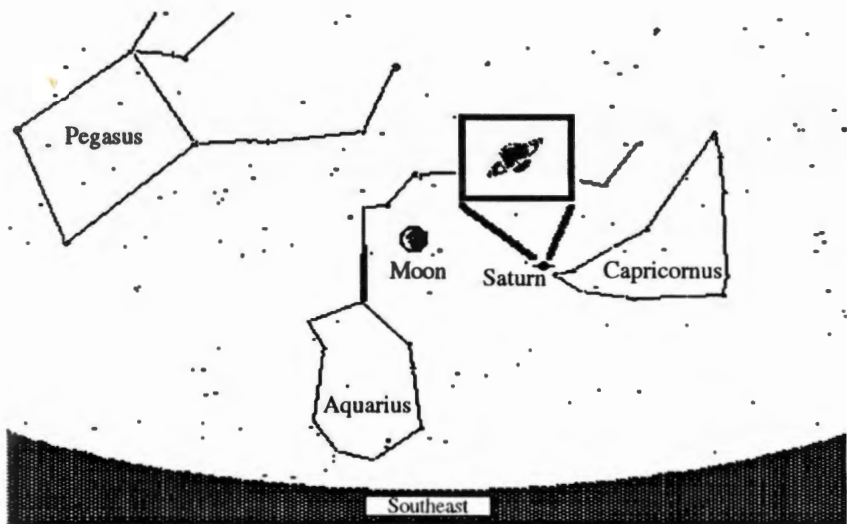


Figure 9
 September 27, 1993
 8:00 PM

Figure 10: Early in the morning on October 21, stargazers may see the meteors of the Orionid meteor shower. This shower usually produces approximately 25 meteors per hour. The meteors appear to radiate from a point between the constellations Orion and Gemini. The waxing crescent Moon sets at 10:59 PM (on the night of the 20th) so it will not interfere with meteor observation after that time.

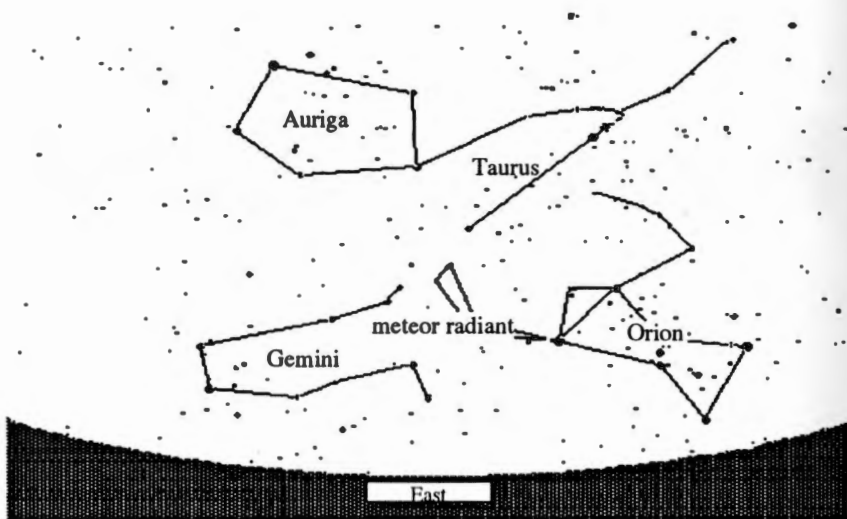


Figure 10
October 21, 1993
12:00 AM

Figure 11: On the night of October 24, Moon and Saturn may be seen. The Moon is a waxing gibbous (illuminated 76 percent). Saturn is about 11° below the Moon in the constellation Capricornus.

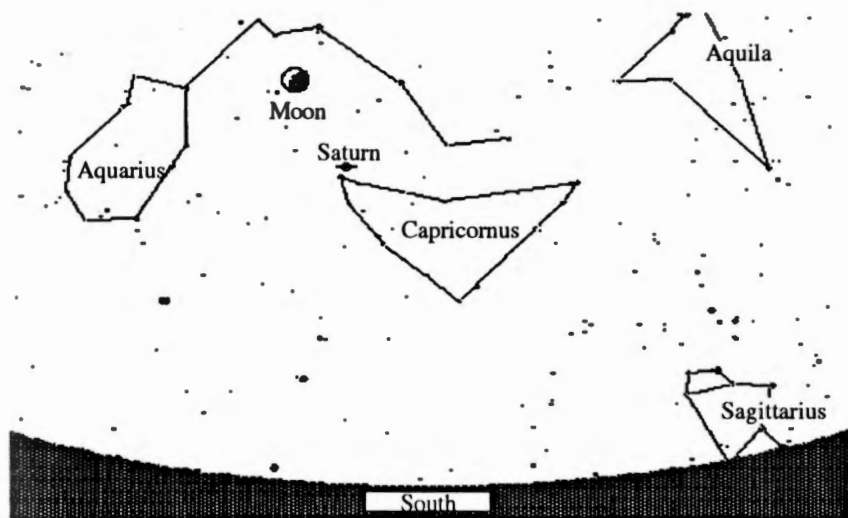


Figure 11
October 24, 1993
9:00 PM

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