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# The Starry Sky — Summer 2006



### How to Use this Map

The above map represents the night sky as it appears at the indicated times, and remains usable several hours before and after.

Hold the map up to the sky in front of you and turn it so the direction you are facing appears at the bottom. Lines identify the constellations. The light-coloured area outlines the Milky Way.



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This Star Map is Accurate on...

(Eastern Daylight Time) June 21 at 1 a.m. July 6 at midnight July 21 at 11 p.m. August 6 at 10 p.m. August 21 at 9 p.m. September 6 at 8 p.m.



# The Sky This Summer

Summer 2006 will provide less-than-ideal views of the bright planets. Only Jupiter is favourably located in the sky and remains visible all evening. The other planets come into view either briefly at dawn, or they are simply hidden in the Sun's glare.

#### Jupiter in the evening

At the beginning of summer during twilight, brilliant Jupiter is at its highest point in the sky, about thirty degrees above the southern horizon. Unfortunately, this means that the view of Jupiter will deteriorate over the coming months. The giant planet will appear lower and lower in the southwest with each passing evening. If you want to observe Jupiter and its main moons through a telescope, do it before it's too late! When objects are close to the horizon, distortion caused by the Earth's atmosphere degrades image quality and limits the amount of visible detail.

The Moon is close to Jupiter on the evening of July 5, August 1, and again on August 29.

#### Saturn returns in the morning

The planet **Saturn** is quite low on the west-northwest horizon at twilight at the end of June, and completely disappears in the Sun's glare at the beginning of July. You'll have to wait until the end of August to see it again, this time at dawn low in the east-north-

#### Seasonal Milestones

The **summer solstice** arrives on June 21 at 08:26 EDT and the **autumn equinox** will occur on September 23 at 00:03. Summer 2006 will last exactly 93 d 15 h 37 min.

On July 3 at 19:00, Earth will be at **aphelion**, the point in its orbit farthest from the Sun: The Earth-Sun distance will then be 152 095 700 km.

### Phases of the Moon

(Eastern Daylight Time)	
Last quarter	New moon
June 18 at 10:08	June 25 at 12:05
July 17 at 15:12	July 25 at 0:31
August 15 at 21:51	August 23 at 15:10
Sept. 14 at 7:15	Sept. 22 at 7:45
First quarter	Full moon
July 3 at 12:37	July 10 at 23:02
August 2 at 4:46	August 9 at 6:54
August 31 at 18:56	Sept. 7 at 14:42
Sept. 30 at 7:04	Oct. 6 at 23:13

east. The ringed planet quickly gains altitude with each passing day. By mid-September, Saturn rises more than three hours before the Sun and becomes an interesting target for telescopes.

The crescent Moon appears less than 4 degrees to the lower left of Saturn on the morning of September 19.

#### Venus, the morning star

This summer, **Venus** remains visible as the morning star: Look for it at dawn on the east-northeast horizon. The brilliant planet gradually approaches the Sun as the months progress: It rises two hours before the Sun in July, but by mid-August this interval is reduced to an hour-and-a-half, and by mid-September it is less than one hour. In fact, Venus completely disappears in the Sun's glare at the end of September, and reappears in the evening sky next December.

At the beginning of August, Mercury and Venus approach one another until, on the morning of the 11th, they are separated by just two degrees. At that point they begin to gradually drift apart. **On August 26 and 27**, Saturn and Venus are separated by about half-a-degree! Look for this tight pair seven degrees above the east-northeast horizon, 45 minutes before sunrise.

The lunar crescent appears next to Venus on the morning of June 23, July 23, and August 22. A last conjunction between Venus and the Moon occurs on September 21, but it will be hard to see since it takes place very close to the eastern horizon.

#### Mercury, a challenge

Because it is always close to the Sun, **Mercury** is only visible during brief periods of the year. One of these favourable windows opens during the first week of August: The tiny planet will be visible above the east-northeast horizon about 45 minutes before sunrise. As the mornings progress Mercury will approach Venus, appearing slight-

#### Paltry year for the Perseids

Are you are among the many who eagerly await the famous August meteor shower? As always, the Perseids will reach their maximum during the same period: This year, the predicted maximum is scheduled for August 12 at 19:00 EDT. In eastern North America, the most favourable nights for observing the meteors are on August 11 to 12 and August 12 to 13. The Perseids are most visible between 23:00 and dawn.

Unfortunately, this time around, conditions are far from good for a quality show. In fact, the Moon is nearly full and remains visible all night. It will flood the sky with light, drowning out the fainter meteors: Only the brightest ones will be able to pierce the luminous veil. Better luck next year — the Moon will be new when the Perseids peak in 2007.

ly higher and somewhat brighter. **On August 11**, the two planets will be separated by just two degrees. Their paths won't cross, however, and Mercury will re-descend toward the horizon over the following mornings. Though Mercury's brightness continues to increase, the planet disappears once more in the Sun's glare during the second half of the month.

#### **Mars disappears**

Due to the great distance now separating **Mars** and the Earth, the Red Planet appears rather faint. It becomes even harder to see at twilight, as it approaches the west-northwest horizon during the first few evenings of summer. Mars ends up disappearing completely in the glare of sunset during July, and only becomes visible again next December at dawn.

Happy observing!

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