The Evening Sky Map

Sky Calendar – May 2023

1. Mercury at inferior conjunction with the Sun at 23h UT. The innermost planet passes into the morning sky.
2. Moon near Spica at 5h UT (evening sky).
4. Full Moon at 17:36 UT.
5. Eta Aquarid meteor shower peaks. Most active for 7 days around this date. Associated with Comet Halley. Very fast, bright meteors, up to 40 per hour. Best seen from the tropics and southern hemisphere a few hours before dawn. Moonlight interferes this year.
6. Moon near Antares at 14h UT (morning sky).
7. Venus 1.8° N of M35 star cluster at 17h UT (44° from Sun, evening sky). Mag. –4.2.
8. Moon at perigee (closest to Earth) at 5:07 UT (evening sky).
9. Last Quarter Moon at 14:28 UT.
10. Moon near Saturn at 0h UT (morning sky). Mag. 1.7.
11. Moon near Mars at 20h UT (evening sky). Mag. 1.5.
12. Moon near Beehive cluster M44 at 7h UT (evening sky).
13. Moon at apogee (farthest from Earth) at 2h UT (distance 369,343km; angular size 32.4').
14. Moon near Mercury at 0h UT (morning sky). Mag. 1.7.
15. New Moon at 15:55 UT. Start of lunation 1242.
16. Moon near Venus at 13h UT (41° from Sun, evening sky). Mag. –4.2. Look out for this spectacular pairing!
17. Moon near Jupiter at 13h UT (morning sky), Mag. –2.1. Occultation visible from North America, Canada and Greenland.
18. Moon near Regulus at 5h UT (evening sky).
19. First Quarter Moon at 15:23 UT.
20. Mercury at greatest elongation west at 5h UT (25° from Sun, morning sky). Mag. 0.6.
21. Moon near Spica at 14h UT (evening sky).

Sky Map for May 2023 shows how the night sky looks from southern latitudes, stars appear to rotate around the South Celestial Pole (SCP). Sky Map drawn for a latitude of 35° south and is suitable for latitudes up to 65° north or south of this.

INSTRUCTIONS: The sky map shows the entire night sky from horizon-to-horizon as it appears on certain dates and times. The center of the night sky directly overhead varies throughout the year. The center of the night sky is the part of the sky directly overhead; the area where you face on the sky map. The horizon is the point where the world as you know it meets the world you don’t know. Sky Map drawn for a latitude of 35° south and is suitable for latitudes up to 65° north or south of this.

Star Magnitudes

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All sales support the production and free distribution of The Evening Sky Map.

The Southern Cross (Crux) can be seen high up in the south-eastern sky this month.
About the Celestial Objects
Listed on this page are several of the brighter, more interesting celestial objects visible in the evening sky this month (refer to the monthly sky map). The objects are grouped into three categories. Those that can be easily seen with the naked eye (that is, without optical aid), those easily seen with binoculars, and those requiring a telescope to be appreciated. Note, all of the objects (except single stars) will appear more impressive when viewed through a telescope or very large binoculars. They are grouped in this way to highlight objects that can be seen using the optical equipment that may be available to the star gazer.

Tips for Observing the Night Sky
When observing the night sky, and in particular deep-sky objects such as star clusters, nebulae, and galaxies, it’s always best to observe from a dark location. Avoid direct light from street lights and others. If possible observe from a dark location away from the light pollution that surrounds many of today’s large cities.

You will see more stars after your eyes adapt to the darkness—usually about 10 to 20 minutes after you go outside. Also, if you need to use a torch to view the sky map, cover the light bulb with red cellophane. This will preserve your dark vision.

Finally, even though the Moon is one of the most stunning objects to view through a telescope, its light is so bright that it brightens the sky and makes many of the fainter objects very difficult to see. So try to observe the evening sky on moonless nights around either New Moon or Last Quarter.

Astronomical Glossary
Conjunction – An alignment of two celestial bodies such that they present the least angular separation as viewed from Earth.
Constellation – A defined area of the sky containing a star pattern.
Diffuse Nebula – A cloud of gas illuminated by nearby stars.
Double Star – Two stars that appear close to each other in the sky; either linked by gravity so that they orbit each other (binary star) or lying at different distances from Earth (optical double). Apparent separation of stars is given in seconds of arc (′).
Ecliptic – The path of the Sun’s center on the celestial sphere as seen from Earth.
Elongation – The angular separation of two celestial bodies. For Mercury and Venus the greatest elongation occurs when they are at their most angular distance from the Sun as viewed from Earth.

Galaxy – A mass of up to several billion stars held together by gravity.
Globular Star Cluster – A ball-shaped group of several thousand old stars.
Light Year (ly) – The distance a beam of light travels at 300,000 km/sec in one year.
Magnitude – The brightness of a celestial object as it appears in the sky.
Open Star Cluster – A group of tens or hundreds of relatively young stars.
Opposition – When a celestial body is opposite the Sun in the sky.
Planetary Nebula – The remnants of a shell of gas blown off by a star.
Universal Time (UT) – A time system used by astronomers. Also known as Greenwich Mean Time. Australian Eastern Standard Time (Sydney, Australia) is UT plus 10 hours.

Easily Seen with the Naked Eye

<table>
<thead>
<tr>
<th>Object</th>
<th>Magnitude</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcturus</td>
<td>0.04</td>
<td>Orange, giant K star. Name means “bear watcher”. Dist=36.7 ly.</td>
</tr>
<tr>
<td>Spica</td>
<td>0.8</td>
<td>Blue supergiant star with mag 7 companion. Dist=770 ly.</td>
</tr>
<tr>
<td>Antares</td>
<td>0.66</td>
<td>Red supergiant star. Name means “rival of Mars”. Dist=135.8 ly.</td>
</tr>
<tr>
<td>Rigel</td>
<td>0.12</td>
<td>Bright star in Orion. Blue supergiant star with mag 7 companion. Dist=770 ly.</td>
</tr>
<tr>
<td>Canopus</td>
<td>3.5</td>
<td>Largest and brightest globular star cluster in sky. 1 million stars. Dist=17,000 ly.</td>
</tr>
<tr>
<td>Beta Centauri</td>
<td>3.8</td>
<td>Brightest star in Leo. A blue-white star with at least 1 companion. Dist=77 ly.</td>
</tr>
<tr>
<td>Delta Aquarids</td>
<td>4.3</td>
<td>Delta Aquarids meteor shower.</td>
</tr>
</tbody>
</table>

Easily Seen with Binoculars

<table>
<thead>
<tr>
<th>Object</th>
<th>Magnitude</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M44</td>
<td>7.0</td>
<td>Praesepe or Beehive Cluster. Visible to the naked eye. Dist=590 x 20 ly.</td>
</tr>
<tr>
<td>M45</td>
<td>3.5</td>
<td>Pleiades Star Cluster. Visible with binoculars.</td>
</tr>
<tr>
<td>M46</td>
<td>4.3</td>
<td>Praesepe or Beehive Cluster.</td>
</tr>
<tr>
<td>M67</td>
<td>4.8</td>
<td>Cluster of young stars. A classical open cluster.</td>
</tr>
<tr>
<td>M27</td>
<td>6.7</td>
<td>含有6000颗星的星系。</td>
</tr>
</tbody>
</table>

Telescopic Objects

<table>
<thead>
<tr>
<th>Object</th>
<th>Magnitude</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3918 Cen</td>
<td>7.0</td>
<td>The Blue Planetoid. Visible in a small telescope as a round blue disk.</td>
</tr>
<tr>
<td>5128 Cen</td>
<td>7.0</td>
<td>Biseected by a wide obscuring lane. Strong radio source. Dist=11 million ly.</td>
</tr>
<tr>
<td>6124 Sco</td>
<td>7.0</td>
<td>Contains 5 bright tightly packed stars near centre. 7 star chain. Dist=1,600 ly.</td>
</tr>
<tr>
<td>M104 Vir</td>
<td>7.0</td>
<td>Superb pair of mag 3.5 yellow-white stars. Orbit=169 years. At their closest in 2005.</td>
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