

# AstroGuy Podcast June 2026 Observing Guide

## Best Observing Windows

**Lunar Feature of the Month:** Mare Crisium is best around June 18-22, when the Moon is waxing toward first quarter and shadows help define the basin rim. Later in the month it remains visible, but the lighting becomes flatter as the Moon approaches full.

**Deep-sky targets:** Aim for the darker nights, the weeks surrounding New Moon. Double stars and brighter targets can still be useful when the Moon is up.

## June 2026 Moon Phase Calendar

June 2026 Moon Phase Calendar

All phase times shown in Eastern Time. Daily icons approximate the Moon's phase for each calendar day.

| Sunday               | Monday                | Tuesday               | Wednesday             | Thursday              | Friday                | Saturday              |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                      | 1<br>Waning Gibbous   | 2<br>Waning Gibbous   | 3<br>Waning Gibbous   | 4<br>Waning Gibbous   | 5<br>Waning Gibbous   | 6<br>Waning Gibbous   |
| 7<br>Waning Gibbous  | 8<br>Third Quarter    | 9<br>Waning Crescent  | 10<br>Waning Crescent | 11<br>Waning Crescent | 12<br>Waning Crescent | 13<br>Waning Crescent |
| 14<br>New Moon       | 15<br>Waxing Crescent | 16<br>Waxing Crescent | 17<br>Waxing Crescent | 18<br>Waxing Crescent | 19<br>Waxing Crescent | 20<br>Waxing Crescent |
| 21<br>First Quarter  | 22<br>Waxing Gibbous  | 23<br>Waxing Gibbous  | 24<br>Waxing Gibbous  | 25<br>Waxing Gibbous  | 26<br>Waxing Gibbous  | 27<br>Waxing Gibbous  |
| 28<br>Waxing Gibbous | 29<br>Full Moon       | 30<br>Waning Gibbous  |                       |                       |                       |                       |

Legend:

New Moon Waxing Crescent First Quarter Waxing Gibbous Full Moon Waning Gibbous Third Quarter Waning Crescent

Exact Major Phase Times

- Third Quarter: June 8, 2026, 6:00 am ET
- New Moon: June 14, 2026, 10:54 pm ET
- First Quarter: June 21, 2026, 5:55 pm ET
- Full Moon: June 29, 2026, 7:56 pm ET

## June 2026 Planetary Data

Representative values for June 2026. Use a current planetarium app for exact local altitude, timing, and horizon clearance.

| Planet  | Best Visibility             | Const.         | Mag.  | Diameter (arcseconds) | Notes                                                                                                       |
|---------|-----------------------------|----------------|-------|-----------------------|-------------------------------------------------------------------------------------------------------------|
| Mercury | Evening twilight            | Gemini         | ~+0.4 | ~8.2"                 | Evening apparition; greatest elongation June 15; Moon nearby June 16; fades into twilight late month.       |
| Venus   | Evening twilight            | Cancer         | ~-4.0 | ~14.4"                | Brilliant evening showpiece; close conjunction with Jupiter June 9; Moon nearby June 17.                    |
| Mars    | Predawn                     | Aries / Taurus | ~+0.8 | ~4.4"                 | Predawn target; modest telescopic disk; Moon nearby June 12; moves into Taurus on June 19.                  |
| Jupiter | Evening twilight, low W     | Gemini         | ~-1.8 | ~32.3"                | Low in evening twilight; close conjunction with Venus June 9; Moon nearby June 17; disappearing late month. |
| Saturn  | Predawn                     | Pisces         | ~+1.2 | ~17.0"                | Predawn target; Moon nearby June 10; rings still at a shallow angle.                                        |
| Uranus  | Morning twilight, difficult | Taurus         | ~+5.9 | ~3.5"                 | Not practical for most observers; too close to morning twilight unless using a chart or smart telescope.    |
| Neptune | Predawn, telescopic         | Pisces         | ~+7.9 | ~2.3"                 | Faint telescopic predawn target near Saturn's region of the sky; exact identification needs a chart.        |

Quick Target List

Deep-sky targets only. The Lunar Feature of the Month appears in the object notes below.

| Object                          | Type                   | Constellation | Magnitude       | Size / Separation        | Distance       | Best Approach         |
|---------------------------------|------------------------|---------------|-----------------|--------------------------|----------------|-----------------------|
| Zubenelgenubi<br>(Alpha Librae) | Wide double star       | Libra         | ~2.75 / ~5.15   | 231 arcsec / 3.85 arcmin | ~77 ly         | Low power             |
| NGC 5866 /<br>M102              | Edge-on galaxy         | Draco         | 9.9             | 4.7 x 1.9 arcmin         | ~50 million ly | 6-inch+; darker skies |
| Rasalgethi<br>(Alpha Herculis)  | Colorful multiple star | Hercules      | ~3.1-3.9 / ~5.4 | 4.7 arcsec               | ~380 ly        | Moderate power        |
| M57<br>(Ring Nebula)            | Planetary nebula       | Lyra          | +8.8            | 1.4 x 1.0 arcmin         | ~2,300 ly      | Moderate-high power   |
| Stephenson 1                    | Open cluster           | Lyra          | 3.8             | 20 arcmin                | ~1,220 ly      | Low-power wide field  |

Object Notes and Finder Tips

Mare Crisium, the Sea of Crises

Lunar mare / lava-flooded basin | Moon

|               |                                                   |
|---------------|---------------------------------------------------|
| Size          | ~4 x 5 arcmin apparent; about 450 x 560 km actual |
| Best approach | Binoculars or a telescope                         |

**Description / where to look:** Look near the Moon’s eastern limb for the isolated dark oval separated from the main chain of lunar maria. At higher power, use crater Picard as an anchor inside the basin. Best around June 18-22, when the Moon is waxing toward first quarter and shadows help define the basin rim.

**What to notice:** Because Mare Crisium sits near the limb, libration can make it look a little more pulled toward the edge or a little more opened up from month to month.



Zubenelgenubi (Alpha Librae)

Wide double star | Libra

|               |                                   |
|---------------|-----------------------------------|
| Magnitude     | ~2.75 and ~5.15                   |
| Separation    | 231 arcsec / 3.85 arcmin          |
| Distance      | ~77 light-years                   |
| Best approach | Binoculars or low-power telescope |

**Star hop:** Find Libra between Spica in Virgo and Antares in Scorpius. Zubenelgenubi is the southern claw star of Libra. Use low power; the pair is wide and looks better with room around it.  
**What to notice:** A quick-win target. It does not need dark skies or high magnification, so it is a good way to begin the session.  
[Click here for a finder chart.](#)

NGC 5866 / Messier 102, the Spindle Galaxy

Edge-on lenticular galaxy | Draco

|               |                                     |
|---------------|-------------------------------------|
| Magnitude     | ~9.9                                |
| Size          | ~4.7 x 1.9 arcmin                   |
| Distance      | ~50 million light-years             |
| Best approach | 6-inch or larger; darker skies help |

**Star hop:** Start at Iota Draconis. NGC 5866 is about 4 degrees southwest of Iota Draconis. Use the FreeStarCharts finder chart to confirm the field, then use averted vision and look for a faint, thin glow.  
**What to notice:** This is the challenge object. Do not expect the Hubble dust lane in a modest telescope. In a 6-inch scope, look for a small elongated smudge under good transparency.  
[Click here for an NGC 5866 finder chart.](#)

## Rasalgethi (Alpha Herculis)

Colorful multiple star | Hercules

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Magnitude</b>     | Variable ~3.1-3.9 primary; companion ~5.4 |
| <b>Separation</b>    | ~4.7 arcsec                               |
| <b>Distance</b>      | ~380 light-years                          |
| <b>Best approach</b> | Small to medium telescope, moderate power |

**Star hop:** Find Hercules between Vega and Arcturus. Rasalgethi marks the head of Hercules and lies near Rasalhague in Ophiuchus. Use moderate magnification and wait for steady seeing.

**What to notice:** Look for the warm orange-red primary and the fainter companion. Slightly defocusing can sometimes make star colors easier to notice.

[Click here for a finder chart.](#)

## M57, the Ring Nebula

Planetary nebula | Lyra

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Magnitude</b>     | +8.8                                      |
| <b>Size</b>          | ~1.4 x 1.0 arcmin                         |
| <b>Distance</b>      | ~2,300 light-years                        |
| <b>Best approach</b> | Moderate to high power; UHC/OIII optional |

**Star hop:** Find Vega, drop to the little parallelogram of Lyra, and look between Sheliak (Beta Lyrae) and Sulafat (Gamma Lyrae). M57 sits about 40 percent of the way from Sheliak toward Sulafat.

**What to notice:** At low power, it can look almost stellar. Increase magnification to bring out the small gray ring and darker center. A UHC or OIII filter can help, but is not required.

[Click here for a finder chart.](#)

## Stephenson 1, the Delta Lyrae Cluster

Open cluster | Lyra

|                      |                                             |
|----------------------|---------------------------------------------|
| <b>Magnitude</b>     | ~3.8                                        |
| <b>Size</b>          | ~20 arcmin                                  |
| <b>Distance</b>      | ~1,220 light-years                          |
| <b>Best approach</b> | Binoculars or low-power wide-field eyepiece |

**Star hop:** From Vega, find the Lyra parallelogram and move to the Delta Lyrae field just east/northeast of it. Keep the magnification low and take in the area around Delta 1 and Delta 2 Lyrae.

**What to notice:** Delta 2 Lyrae grabs your eye, but it is not considered a cluster member. Delta 1 Lyrae is likely associated with the cluster. This is a low-power field, not a high-power target.

[Click here for a finder chart.](#)

## Quick Field Tips

- Use low power for Zubenelgenubi and Stephenson 1.
- Use moderate magnification for Rasalgethi.
- Use moderate to high magnification for M57.
- Use averted vision and patience for NGC 5866.
- To enhance star colors, try slightly defocusing them.

## Notes: