

BCAS OBSERVING HIGHLIGHTS for February 24 to March 11, 2026, a “bright Moon period”
Black Canyon Astronomical Society (BCAS), southwest-central Colorado, USA

DATES & TIMES (MST/MDT) FOR REGIONAL EVENTS & EYE-CATCHING HAPPENINGS IN THE SKY:

February 23-24, 7 PM to 12:30 AM MST, Moon passes 1° north of Pleiades Star Cluster
February 23-26, 6:30 to 6:45 PM MST, look for Mercury, very low above the western horizon
February 24, 6:27 PM to 6:45 PM MST: Spot Venus in west 5° below and to left of Mercury
February 24 to 27, 4:40 AM to 5:40 AM MST: Enjoy our spring stars under a dark, moonless sky
February 25-26, 10:54 PM to 2:22 AM MST: Giant moon Ganymede’s shadow crosses Jupiter
February 26, around 6:45 PM MST: Look west! Mercury/Venus 4° apart, with Saturn above!
February 26-27, 6:30 PM to 3 AM MST: Moon passes 4° north of Jupiter
February 27, 10:00 AM MST: [Western Slope Skies](#) on KVMF radio
March 1-2, Moon just west of bright star Regulus in Constellation Leo
March 3, 2:49 AM to 6:17 AM MST: Partial-TOTAL-partial lunar eclipse (max at 4:38 AM MST)
March 4, 6:00 PM MST: [Western Slope Skies](#) on KVMF radio
March 5, 9:20 PM to 10 PM MST: Watch Moon rise 5° above bright star Spica in Virgo
March 7, 6:50 PM MST: Brilliant Venus 1° to right of Saturn, low in west
March 8, 2:00 AM MST: Change local time from MST to MDT
March 9 to 11, 8:40 PM to 1 AM MDT: Enjoy our winter stars under a dark, moonless sky
March 10, 3 AM to 6:30 AM MDT: Watch Moon pass 1.5° south of reddish star, Antares

SUMMARY. If skies are clear on the morning of March 3, we’ll be able to see a total lunar eclipse from western North America! In Colorado, the eclipse begins almost imperceptibly at 1:42 AM MST, when the eastern edge of the Moon first touches the partial shade of the penumbra, the less dark part of Earth’s shadow. The real action starts at 2:49 AM MST, when the partial eclipse begins, as the Moon starts moving into the umbra, the darker part of Earth’s shadow. At 4:03 AM MST the eclipse becomes total, as the entire Moon is immersed in the umbra. Maximum eclipse is at 4:38 AM MST. The totally eclipsed Moon glows with an ashen, reddish light until 5:02 AM MST, when the total eclipse ends. This eerie, reddish hue is caused by sunlight that is bent by Earth’s atmosphere into the umbral shadow. From 5:02 AM to 6:17 AM MST, the Moon again is partially eclipsed, as morning twilight brightens skies across the Western Slope. The partial eclipse ends with the Moon low in the west, about 25 minutes before local moonset.

The Moon reaches first quarter on February 24 and from February 25 to March 2, we can watch the gibbous Moon wax. The Moon is full on March 3, when it gets totally eclipsed within Earth’s umbral shadow. From March 4 to 10, the gibbous Moon wanes. The Moon reaches last quarter on March 11.

Try to spot Mercury low in the west from February 23 to 26 between 6:30 and 6:45 PM MST, before the Innermost Planet fades and disappears into glaring evening twilight. While Mercury is departing as an “evening star”, brilliant Venus is just starting its 2026 performance in our evening sky. On February 26 at about 6:45 PM MST, try to spot Venus with fainter Mercury about 4 degrees above and to the right (you may need binoculars to see Mercury). Then on March 7 at around 6:50 PM MST, look for brilliant Venus about 1 degree to the right of fainter Saturn in evening twilight (binoculars may help you find Saturn). Bright Jupiter is more than 50 degrees high in the southeast as the sky darkens, culminating more than 70 degrees above the southern horizon around 9 PM MST (10 PM MDT), and setting in the west northwest after 3 AM MST (4 AM MDT). Use a telescope to watch solar eclipses on Jupiter, as shadows of 3 of its large moons cross the giant planet. With a telescope or binoculars, you can spot Uranus in the early evening, as the 7th Planet moves slowly through the stars of Constellation Taurus, about 5 degrees south of the Pleiades Star Cluster.

As of February 23, there is little activity on the Earth-facing side of the Sun, but it's likely there are active regions that will rotate into view during this period. So, we may experience more M- and possibly X-class (extreme) flares and powerful CMEs (update). There's a possibility that coronal mass ejections from the Sun could trigger auroras that are again visible from the Western Slope (update).

Numerous Earth satellites are visible every clear evening and morning. Find times for local passes of bright satellites, including the International Space Station and Tiangong, the Chinese Space Station, at these links...

<https://www.heavens-above.com/>

<https://www.n2yo.com/passes/?s=25544>

Note: The apparent brightness of sky objects is measured in "magnitude" units. Many bright stars are magnitude +1, while the faintest stars easily visible to unaided eyes under dark skies are magnitude +6. Some of the brightest stars are 0 magnitude (e.g., Vega, Arcturus), while the brightest sky objects have negative magnitudes (e.g., Sirius at -1.5, Jupiter at -2 to -3, Venus at -4 to -5, the full Moon at -12 to -13, and the Sun at -26.7 magnitude). Angular distances on the sky are usually cited in degrees of arc (often abbreviated as "°"). Helpful ways to estimate 1, 5, 10, 15, and 25 degrees of arc can be found here: <https://www.timeanddate.com/astronomy/measuring-the-sky-by-hand.html>

CHANGE TO MDT – MARCH 8. On Sunday, March 8 at 2 AM MST, we in Colorado change from Mountain Standard Time (MST) to Mountain Daylight Time (MDT). Remember to set all non-internet-connected watches, clocks, and devices ahead by one hour.

THE MOON. The Moon reaches **first quarter on February 24** (exactly at 5:27 AM MST). From February 25 to March 2, watch the gibbous Moon wax. **The Moon is full on March 3** (exactly full at 4:38 AM MST), when it gets **totally eclipsed** within Earth's shadow (see item below). From March 4 to 10, the gibbous Moon wanes. The Moon reaches **last quarter on March 11** (exactly at 3:38 AM MDT).

On the night of February 23-24 from 7:00 PM to 12:30 AM MST, the not-quite-first-quarter Moon passes just 1 degree north of the famous Pleiades Star Cluster (aka "Seven Sisters" or M45). Then on the night of February 26-27, the waxing, gibbous Moon passes about 4 degrees north of the bright Planet Jupiter. On the night of March 1 to 2, look for the bright gibbous Moon (about 98% illuminated) just west of the first-magnitude star Regulus in Constellation Leo. On the evening of March 5 between about 9:20 and 10 PM MST, watch the waning, 92%-illuminated Moon rise about 5 degrees above first-magnitude Spica in Constellation Virgo. On March 10 from 3 AM to 6:30 AM MDT, the 58%- illuminated, waning gibbous Moon passes just 1.5 degrees south of reddish Antares in Scorpius. NASA has published [a stunning visualization of lunar phases for year 2026](#). Another fun site is [NASA's daily Moon guide](#).

TOTAL LUNAR ECLIPSE – MARCH 3 - AM! Hope for clear skies from the wee hours until dawn on March 3, because western North America will be treated to total lunar eclipse! For timing, geometry, geographic coverage, and photos of what to expect, see the illustration below. On the Western Slope, the eclipse begins almost imperceptibly at 1:42 AM MST, when the eastern edge of the Moon first touches the partial shade of the penumbra, the "less dark" part of Earth's shadow. An astronaut on the Moon, standing within the penumbra, would see a partial eclipse of the Sun by the Earth. But the real action begins at 2:49 AM MST, when the Moon starts moving into the umbra, the darker part of Earth's shadow. Through binoculars, the edge of the dark umbra looks ragged, rather than sharp. That's due to clouds and other features of Earth's atmosphere. Our lunar astronaut, standing within the umbra, would see a total eclipse of the Sun by the Earth, [as was imaged on March 14, 2025 by Firefly Aerospace's Blue Ghost 1 lunar lander](#). At 4:03 AM MST the entire Moon becomes immersed in the umbra, and the Moon glows with an ashen, reddish light until 5:02 AM MST, when the total eclipse

ends. Maximum eclipse occurs at 4:38 AM MST. The reddish hue is caused by sunlight that is bent by Earth's atmosphere into the umbra. During totality, we see the effects of countless reddish sunsets and sunrises around the periphery of the Earth as reflected from the Moon. [The brightness and color of the Moon during lunar eclipses varies due to the state of Earth's atmosphere, eclipse geometry, and other factors.](#) From 5:02 AM to 6:17 AM MST, the Moon again will be partially eclipsed, as twilight brightens skies across the Western Slope. The partial eclipse ends with the Moon low in the west, about 25 minutes before local moonset.

MORNING TOTAL LUNAR ECLIPSE MARCH 3, 2026

Times (MST)

1:42 AM penumbral eclipse starts

2:49 AM partial eclipse starts *

4:03 AM total eclipse starts *

4:38 AM midpoint of total eclipse *

5:02 AM total eclipse ends *

5:12 AM astronomical twilight begins *

5:43 AM nautical twilight begins *

6:14 AM civil twilight begins *

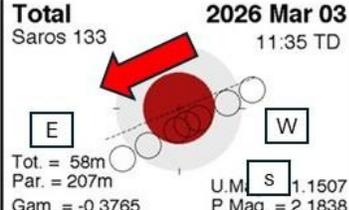
6:17 AM partial eclipse ends

6:43 AM moonset

6:45 AM sunrise

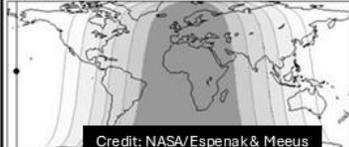
7:24 AM penumbral eclipse ends

Total **2026 Mar 03**
Saros 133 11:35 TD



Tot. = 58m
Par. = 207m
Gam. = -0.3765

U.M. **S** 1.1507
P. Mag. = 2.1838



Credit: NASA/Espenak & Meeus



Credits: Eclipse Times: NASA/Fred Espenak
Twilight/moonset Times for W. Colorado : Stellarium

Photos by Art Trevena, April 15, 2014

FAREWELL TO MERCURY AS AN “EVENING STAR”! During February, Mercury has been making its second-best (or perhaps best?) evening appearance of 2026. But the February “Mercury show” is closing, as the “Speedster Planet” moves rapidly toward [inferior solar conjunction](#) on March 7, when it passes invisibly just north of the Sun in our daytime sky.

On February 23 at around 6:30 PM MST, you can spot Mercury about 10 degrees above the western horizon with the Sun 7 degrees below the horizon. From February 23 to 26 between 6:30 and 6:45 PM MST, Mercury appears less than 7 degrees above brilliant Venus, with the two inner planets drawing closest on February 26 (see chart, below). From February 23 to 26, Mercury fades rapidly from magnitude +0.26 to +1.13, as its crescent phase wanes from 30% to 17% illuminated. After February 26, Mercury continues fading and quickly disappears into glaring twilight. As seen through telescopes, the apparent diameter of Mercury's crescent increases from 8.2 to 9.0 arc seconds between February 23 and February 26. When at [superior solar conjunction](#) on January 21, Mercury was 132 million miles distant. Mercury is 76 million miles distant on February 23, 69 million miles distant on February 26, and

58 million miles distant when at inferior solar conjunction on March 7. **Please do your Mercury spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

**Mercury, Venus, & Saturn
looking just south of due west
February 26: 6:45 PM MST**

Look through the twilight glare, low to the west, on February 26 at around 6:45 PM MST (with the Sun about 9° below the horizon), and try to spot Venus about 2° above an unobstructed horizon with fainter Mercury about 4° above and to the right of Venus. As a bonus, you can spot Saturn about 10° above and the left of Mercury. Venus shines brightly at magnitude -3.9, while Mercury (magnitude +1.1) and Saturn (magnitude +1.0) are fainter. Venus will set within 15 minutes, but Mercury and Saturn remain above the horizon a bit longer. Simulated with Stellarium for western Colorado with 5° Alt-Az grid



VENUS IN EVENING TWILIGHT. Venus has reappeared in the evening sky, and week-by-week, our “Sister Planet” gets higher in evening twilight. On February 23 at about 6:35 PM MST (with the Sun 8 degrees below the horizon), you may be able to spot Venus 3 degrees above an unobstructed horizon about 10 degrees south of due west. On February 26 at about 6:45 PM MST, you can spot brilliant Venus (magnitude -3.9) and fainter Mercury (magnitude +1.1) about 4 degrees to Venus’ upper right (try using binoculars), and Saturn will also be visible, about 10 degrees above and left from Venus (refer to the chart, above). On March 7 at about 6:50 PM MST, look for brilliant Venus about 1 degree to the right of fainter Saturn (magnitude +1.0); you may need binoculars to see Saturn. By March 11 at around 8:00 PM MDT, Venus shines prominently through less glaring twilight about 5 degrees above an unobstructed, western horizon. Venus is moving toward us from the far side of the Sun. Our “Sister Planet” is 155 million miles distant on February 23 and 152 million miles distant on March 11. Through telescopes, Venus’ nearly full, gibbous phase wanes slightly from 98% illuminated on February 23 to 97% illuminated on March 11, as Venus’ distance from Earth decreases and its apparent diameter increases from 10.0 to 10.2 arc seconds. Venus will become a dazzling “evening star” through the spring and summer months of 2026. **Please do your Venus spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

SATURN DESCENDS INTO EVENING TWILIGHT. On February 23, Saturn sets in a dark sky at 8:01 PM MST, but by March 11 the Ringed Planet sets during twilight at 8:08 PM MDT with the Sun only 11 degrees below the horizon. During this period, Saturn shines at magnitude +1.0, as its distance from Earth increases from 966 million to 973 million miles. On March 7 at about 6:50 PM MST, use binoculars to spot Saturn about 1 degree to the left of brilliant Venus (magnitude -3.9). Through telescopes, Saturn’s disk appears 16 arc seconds wide, and its rings span 37 arc seconds. During early 2026, Saturn’s

thin rings (150,000 miles wide but only about 1000 ft thick!) appear nearly “edge-on” from our perspective on Earth. These rings are not as striking as they have been in the past few years (and will be a few years from now). Saturn’s rings will gradually appear to “open” from Earth’s perspective later in 2026. When seen nearly edge-on, Saturn’s rings are dimmer than average, making it easier to spot some of Saturn’s mid-sized moons, like Tethys, Dione, Rhea, and Enceladus. Titan, Saturn’s largest moon, is bright enough to see with just binoculars. You can follow the changing positions of Saturn’s moons by using various planetarium apps.

URANUS. As the sky darkens, Uranus is more than 60 degrees high in the southwest and well placed for viewing. The 7th Planet sets in the west northwest at 12:45 AM MST on February 24 and 12:47 AM MDT on March 11. Uranus is moving slowly against the stars of Constellation Taurus, about 5 degrees south of the Pleiades Star Cluster. You can use this link to find Uranus: <https://theskylive.com/uranus-info> At magnitude +5.8, you can see the 7th Planet easily with binoculars, and perhaps even with eyes unaided when the Moon is below the horizon. But you’ll need a telescope to resolve Uranus’ 3.6 arc second-wide disk and to detect color easily. Most people perceive Uranus as either blue or green. How does it appear to you? The best time to view the 7th Planet is soon after the sky darkens at around 7:30 PM MST (8:30 PM MDT), when the 7th Planet is still high in the sky. Uranus is 1.83 billion miles from Earth during this period.

JUPITER AND ITS LARGE MOONS. Bright Jupiter, moving against the stars of Gemini, is more than 50 degrees high in the southeast as darkness falls and culminates more than 70 degrees above the southern horizon around 9 PM MST (10 PM MDT). Jupiter sets in the west northwest at around 4:23 AM MST on February 24 and 4:22 AM MDT on March 11. Between February 24 and March 11, the Giant Planet fades from magnitude -2.47 to -2.36, as its distance from Earth increases from 422 million to 442 million miles, and its apparent diameter decreases from 43.4 to 41.5 arc seconds. That’s still large enough for resolving Jupiter’s disk with binoculars!

Use a telescope or binoculars to spot Jupiter’s four bright “Galilean” moons. You can identify them by their changing positions and referring to various planetarium apps. Use a telescope to view shadows of the Galilean moons crossing the Giant Planet. These are total solar eclipses on Jupiter! Ganymede, the largest moon in the Solar System, casts the largest shadow of Jupiter’s moons, and its shadow is usually the easiest to spot. **There’s a transit of Ganymede’s shadow on the night of February 25-26 from 10:54 PM to 2:22 AM MST, when Jupiter is relatively high in our sky.** Due to their smaller diameters, the shadows of Callisto, Io, and Europa are smaller than Ganymede’s shadow. But shadows of all 4 Galilean moons can be observed transiting Jupiter with telescopes having apertures as small as 3 inches. Shadow transits of Io and Europa occur frequently, because Io orbits Jupiter every 1.8 Earth days, and Europa every 3.6 days. Ganymede and Callisto have longer orbital periods (around Jupiter), 7.2 and 16.7 Earth days, respectively, so their shadows cross Jupiter less frequently.

February 25-26, 2026, 10:54 PM to 2:22 AM MST, Ganymede’s shadow crosses Jupiter (Locally, this event begins with Jupiter 60 degrees high in the west and ends with Jupiter 20 degrees above the west-northwestern horizon).

February 26, 2026, 2:44 AM to 5:02 AM MST, Io’s shadow crosses Jupiter (Locally this event begins with Jupiter 15 degrees above the west-northwestern horizon and ends long after Jupiter sets).

February 26, 2026, 3:52 PM to 6:42 PM MST, Europa’s shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 26 degrees high in the east and ends during nautical twilight with Jupiter 58 degrees high in the east).

February 27, 2026, 9:12 PM to 11:32 PM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 73 degrees high in the southwest and ends with Jupiter 51 degrees above the western horizon).

March 1, 2026, 3:42 PM to 6:00 PM MST, Io's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 27 degrees high in the east and ends around sunset with Jupiter 54 degrees high in the east).

March 5, 2026, 2:54 AM to 6:22 AM MST, Ganymede's shadow crosses Jupiter (Locally, this event begins with Jupiter 9 degrees above the west-northwestern horizon and ends long after Jupiter sets).

March 5, 2026, 6:28 PM to 9:18 PM MST, Europa's shadow crosses Jupiter (Locally, this event begins in bright civil twilight with Jupiter 61 degrees high in the east and ends with Jupiter 70 degrees above the southeastern horizon after twilight ends).

March 6-7, 2026, 11:08 PM to 1:26 AM MST, Io's shadow crosses Jupiter (Locally this event begins with Jupiter 49 degrees above the western horizon and ends with Jupiter 24 degrees high in the west northwest).

March 8, 2026, 6:36 PM MDT to 8:56 PM MDT, Io's shadow crosses Jupiter (Note time change to MDT; locally this event begins in daylight with Jupiter 54 degrees high in the east and ends in a dark sky with Jupiter 74 degrees high in the south).

WILL A BRIGHT NOVA (“NEW” STAR) APPEAR SOON? Will there be a bright “new” star in Constellation Corona Borealis sometime soon, if only briefly? Corona Borealis rises above the east-northeastern horizon by 10:30 PM MST (11:30 PM MDT), and the Constellation is more than 70 degrees high in the south at 5:00 AM MST (6:00 AM MDT). [T Coronae Borealis](#) (T CrB) is a recurrent nova that (based on past behavior) may rapidly increase in brightness 1500-fold (to second magnitude) to become the brightest star (or 2nd brightest star) in Corona Borealis between now and perhaps later this year. Then this “new star” may fade rapidly below naked-eye visibility in about a week. As of 5 AM (MST) on February 23, T CrB had not yet erupted. [Astronomer Jean Schneider predicted that an eruption is mostly likely on or about June 25, 2026](#). But an eruption could happen at any time! You can find additional info at these sites...

https://blogs.nasa.gov/Watch_the_Skies/2024/02/27/view-nova-explosion-new-star-in-northern-crown/

https://www.aanda.org/articles/aa/full_html/2023/12/aa48372-23/aa48372-23.html

THE SUN. The Sun has been very dynamic lately, as solar active regions containing sunspots have unleashed numerous flares and coronal mass ejections (CMEs) of charged particles. There have been many M-class (moderate) solar flares during recent weeks. And there were X-class (extreme) flares on January 18, February 1 (two!) and February 2, 3 and 4! CMEs have triggered geomagnetic storms that caused auroras, including an aurora on the evening of January 19, which was observed and photographed from the Western Slope. As of February 23, there is little activity on the Earth-facing side of the Sun, but it's likely there are active regions that will rotate into view during this period. So, we may experience more M- and possibly X-class (extreme) flares and powerful CMEs. The best way to monitor sunspots, solar flares, CMEs, and other solar activity safely (and in “real time”) is by using the internet. To safely monitor the Sun, check out the following sites...

<https://sohowwww.nascom.nasa.gov/data/realtime-images.html>

<https://sdo.gsfc.nasa.gov/data/>

<https://stereo.gsfc.nasa.gov/beacon/>

<http://halph.nso.edu/>

<https://www.swpc.noaa.gov/>

<http://www.sidc.be/silso/ssngraphics>

Do not look at the Sun directly without [safe, specialized solar filters](#). Looking at the Sun can be very dangerous unless you take adequate precautions. Severe eye damage and even blindness can result.

AURORAS (aka “polar lights” or “northern lights”). Because we are still in an active part of the solar cycle, there may be more geomagnetic storms that trigger auroras that could become visible from the Western Slope. Get predictions and updates for auroras, their intensity, and geographic extent from NOAA’s Space Weather Prediction Center:

<https://www.swpc.noaa.gov/products/aurora-viewline-tonight-and-tomorrow-night-experimental>

Auroras are most frequently seen from high latitudes, e.g., from Canada, Alaska, Iceland, northernmost Europe, southern New Zealand, and Antarctica. But many people have viewed and photographed auroras from the Western Slope in the past two years, including a spectacular aurora on November 11, 2025 and another aurora on the evening of January 19 and [early morning of January 20, 2026](#). Also, we can watch auroras in real-time from Yellowknife, Northwest Territories on an all-sky camera at the [Canadian Space Agency’s AuroraMax website](#). Like Colorado, Yellowknife is in the Mountain Time Zone. An aurora webcam at the University of Alaska-Fairbanks is two hours behind the Mountain Time Zone...

<https://www.youtube.com/watch?v=O52zDyXg5QI>

[Airglow](#) and [SAR arcs](#) also result from high solar activity, and these phenomena have been photographed and/or observed from Colorado.

EARTH SATELLITES. Numerous Earth satellites are visible every clear night. Satellites are visible only when they reflect sunlight during twilight or nighttime hours. We see satellites most often during late evening twilight and for an hour or so afterwards, and before and during early morning twilight. The brightest satellites are the International Space Station (ISS) and Tiangong, the Chinese Space Station. Both space stations can appear brighter than any star in the sky, and at times even brighter than the Planet Jupiter. Predictions for space station passes can change quickly, and it’s best to get predictions for passes within 24 hours of when you want to see the satellites. In low Earth orbit, both the ISS and Tiangong are subject to atmospheric drag, and they undergo frequent re-boosting. Re-boosting slightly slows orbital speed, resulting in later passes. Also, both space stations frequently alter their orbits to avoid collisions with other satellites and space debris. Some popular sites for predicting local passes of the space stations (and other satellites) are the following (be sure to set applications to your location and time zone):

<https://www.heavens-above.com/>

<https://www.n2yo.com/passes/?s=25544>

For ISS passes, you can use NASA’s “Spot the Station” app for mobile devices ...

<https://www.nasa.gov/spot-the-station/>

Starlink satellite “trains” can be striking sights for a few days after their launch. For predictions of SpaceX’s Starlink satellites, try using this site:

<https://findstarlink.com/#5431710;3>

HAPPY OBSERVING!