BCAS OBSERVING HIGHLIGHTS for January 25 to February 9, 2026, a "bright Moon period"
Black Canyon Astronomical Society (BCAS), southwest-central Colorado, USA

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

January 24 to 27, 2:30 AM to 5:30 AM: Enjoy our spring stars under a dark, moonless sky
January 26, 2026, 6:20 PM to 9:56 PM: Moon Callisto's shadow crosses Jupiter in "primetime"
January 30, 10:00 AM: Western Slope Skies on KVNF radio
January 30-31, 6:30 PM to 5:30 AM: Planet Jupiter near the waxing, gibbous Moon
February 1, 5:35 PM to 6:30 PM: The full Moon rises (look for the Moon illusion effect)
February 2, about 7:30 PM: Bright star Regulus reappears from behind the Moon
February 4, 6:00 PM: Western Slope Skies on KVNF radio
February 6-7, after 11:06 PM: Moon near bright star, Spica in Constellation Virgo
February 6 to 9, 7 to 11 PM: Enjoy our winter stars under a dark, moonless sky
February 9, about 6:25 PM: Spot Mercury 4° above west-southwestern horizon
February 10, 7:00 PM: BCAS meeting: "Touring the Universe with an AI-powered SmartTelescope"

SUMMARY.

As the sky darkens, Saturn is still prominent in the western sky and bright Jupiter is rising high in the east. With a telescope, you can watch solar eclipses on Jupiter, as the shadows of three of its large moons cross the Giant Planet, including a rare "primetime" transit of Callisto's shadow on January 26 from 6:20 PM to 9:56 PM MST. By around February 9, Mercury begins another appearance as an "evening star." With telescopes, we can spot Neptune, conveniently near Saturn, and Uranus, a few degrees south of the Pleaides Star Cluster in Constellation Taurus.

The Moon reaches first quarter on January 25. From January 26 to 31, watch a gibbous Moon wax. The Moon is full on February 1. The Moon illusion effect may make the full Moon seem especially large when it rises above east southeastern horizon at around 5:35 to 6:30 PM MST. From February 2 to 8, the gibbous Moon wanes. The Moon reaches last quarter on February 9. On February 2 at about 7:30 PM MST, Regulus, the brightest star in Constellation Leo, will reappear from behind the dark, western edge of the 98%-illuminated, waning gibbous Moon.

Before the moon enters the predawn sky around January 28 or 29, look for periodic Comet 24P/Schaumasse with a telescope, as it moves eastward against the stars of southern Boötes.

Solar activity remains high, and there was an extreme solar flare on January 18. Some recent solar flares were associated with coronal mass ejections that caused geomagnetic storms and auroras that were visible from the Western Slope. As of January 24, there are many large active regions on the Earth-facing side of the Sun, so it's possible that auroras could be visible again from western Colorado during this period.

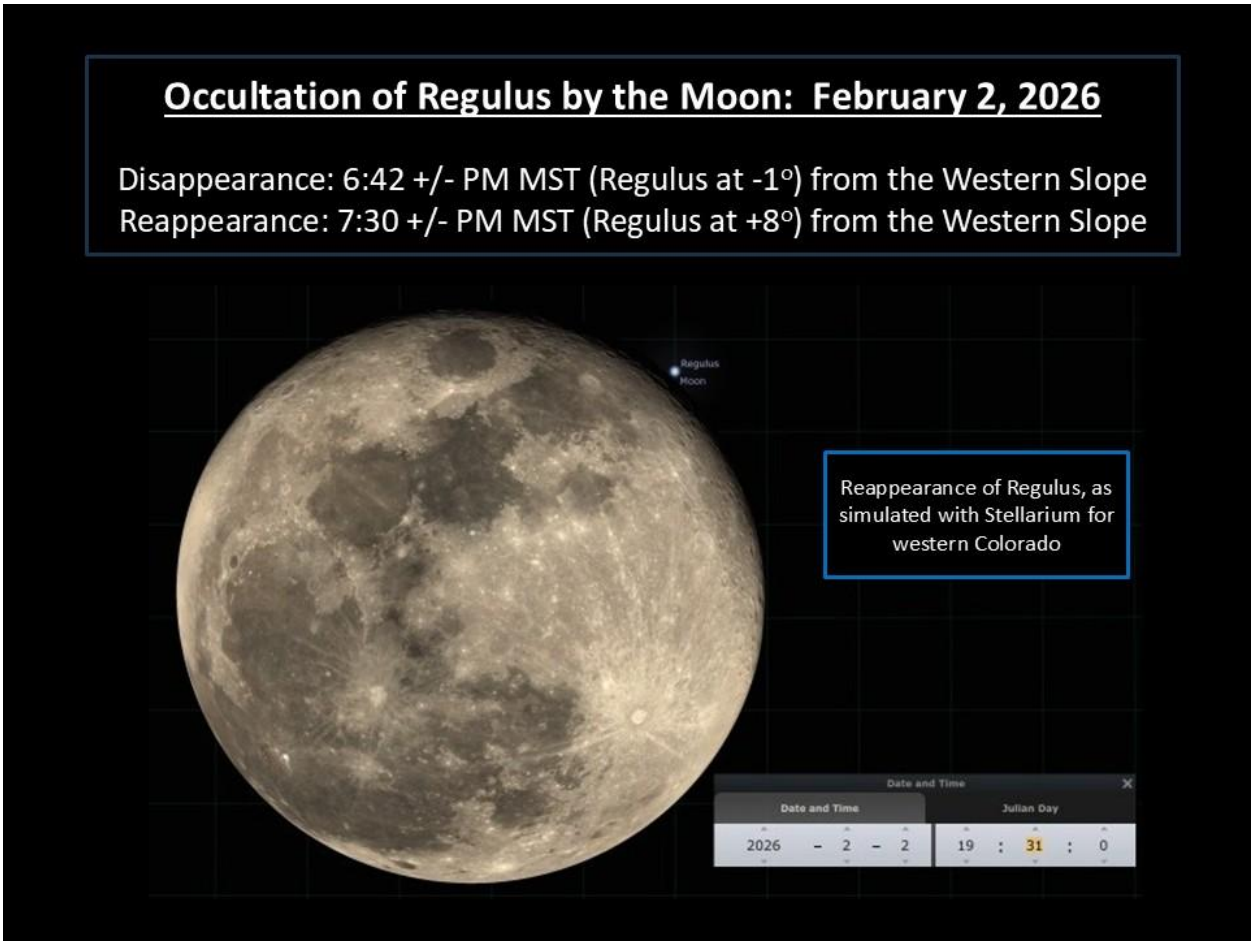
Numerous Earth satellites are visible every clear evening and morning. Find times for local passes of bright satellites, including the International Space Station and Tiangong, the Chinese Space Station, at these links...
https://www.heavens-above.com/
https://www.n2yo.com/passes/?s=25544

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

THE MOON. The Moon reaches **first quarter on January 25** (exactly at 9:47 PM MST). From January 26 to 31, watch a gibbous Moon wax. **The Moon is full on February 1** (exactly full at 3:09 PM MST). The Moon illusion effect may make the full Moon seem especially large when it rises above the east-southeastern horizon on February 1 at around 5:35 to 6:30 PM MST. From February 2 to 8, the gibbous Moon wanes. The Moon reaches **last quarter on February 9** (exactly at 5:43 AM MST).

On the night of January 30, the 96%-illuminated, gibbous Moon is several degrees east of the bright Planet Jupiter. **On February 2 from about 6:42 PM to 7:30 PM MST the 98% illuminated, waning gibbous Moon occults (moves in front of) Regulus, the first-magnitude star in Constellation Leo.** The disappearance of Regulus occurs along the bright, eastern (sky direction) leading edge of the Moon, and the reappearance occurs along the dark, western, trailing edge. Unfortunately, Regulus' disappearance at about 6:42 PM MST occurs before moonrise for most of western Colorado, but it may be visible from Front Range locations (and locations farther east). Regulus' reappearance will happen at about 7:30 PM MST (plus or minus a few minutes, based on your location), when the Moon is about 8 degrees above the eastern horizon on the Western Slope. The reappearance of Regulus (simulated below) may be a striking sight in telescopes, and perhaps even in binoculars. On the night of February 6-7 between 11:06 PM MST and midnight, watch the waning, 70%-illuminated Moon rise about 2 degrees south of first-magnitude Spica in Constellation Virgo. NASA has published a stunning visualization of lunar phases for year 2026. Another fun site is NASA's daily Moon guide.



SATURN IN THE EVENING. As the sky darkens, the Ringed Planet is more than 20 degrees above the west-southwestern horizon. View Saturn with telescopes while it is still relatively high in the sky, just after the end of bright evening twilight. Saturn sets in the west at about 9:40 PM MST on January 25 and 8:48 PM MST on February 9. During this period, Saturn shines at +1.0, as its distance from Earth increases from 938 million to 954 million miles. Through telescopes, Saturn's disk appears 16 arc seconds wide, and its rings span 38 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.

NEPTUNE – NEAR SATURN. Neptune, shining at magnitude +7.8, is about 1.5 degrees north of Saturn. Like Saturn, we can observe Neptune best just after the end of evening twilight. You'll need binoculars or a telescope to spot Neptune, moving slowly against the stars of southwestern Pisces during this period. A telescope may reveal Neptune's 2.2 arc second-wide, blue disk. Neptune is 2.85 billion miles distant these days. You can use this link to find Neptune:
https://theskylive.com/neptune-info

MERCURY BECOMES AN "EVENING STAR." During early February, Mercury begins its second-best evening appearance of 2026. By February 9 (or perhaps a day or two earlier) at around 6:25 PM MST, you may be able to spot the Innermost Planet, shining at magnitude -1.1, about 4 degrees above an unobstructed, west-southwestern horizon (with the Sun about 9 degrees below that horizon). Mercury will get easier to spot in mid-February, as its angular separation from the Sun increases. Mercury was at superior conjunction on January 21, when it appeared to pass about 2 degrees south of the Sun in our sky. On February 9, Mercury is 110 million miles from Earth, and the Innermost Planet was 132 million miles distant when at superior conjunction on January 21. Through telescopes on February 9, Mercury's 5.7 arc second-wide, gibbous disk is 85% illuminated. **Please do your Mercury spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

URANUS. Uranus is well placed for viewing through much of the night. Uranus is moving slowly against the stars of Constellation Taurus, about 4 degrees south of the Pleiades Star Cluster. You can use this link to find Uranus: https://theskylive.com/uranus-info
At magnitude +5.7, 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' 3.7 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 times to view the 7th Planet may be between 6:00 PM and 9:00 PM MST, when Uranus is more than 50 degrees above the horizon. Uranus is 1.79 billion miles from Earth during this period.

JUPITER AND ITS MOONS. This is still a good time to view Jupiter and its four large "Galilean" moons! The Giant Planet now rises well before sunset and remains visible through most of the night, setting in the west-northwest at around 6:32 AM MST on January 25 and 5:25 AM MST on February 9. Jupiter is more than 50 degrees high in our sky between 8:30 PM and 1:30 AM MST, culminating more than 70 degrees above the southern horizon between 9:45 PM and 11:15 PM MST. Jupiter was opposite the Sun in our sky and closest to Earth on January 10. Between January 25 and February 9, the Giant Planet

fades slightly from -2.65 to -2.57, as its distance from Earth increases from 397 million to 408 million miles, and its apparent diameter decreases from 46.2 to 45.0 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. Unfortunately, there are no locally visible transits of Ganymede's shadow during this period. 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. There is a relatively rare, "primetime" transit of Callisto's shadow on the evening of January 26 (see below).

January 25, 2026, 6:06 AM to 8:24 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter only 4 degrees above the west-northwestern horizon and ends in daylight long after Jupiter sets).

January 25, 2026, 4:10 PM to 6:58 PM MST, Europa's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter only 3 degrees above the east-northeastern horizon and ends with Jupiter 35 degrees high in the east in a dark sky).

January 26, 2026, 6:20 PM to 9:56 PM MST, Callisto's shadow crosses Jupiter (Locally, this event begins with Jupiter 28 degrees above the eastern horizon and ends with Jupiter 68 degrees high in the southeast).

January 27, 2026, 12:36 AM to 2:52 AM MST, Io's shadow cross Jupiter (Locally, this event begins with Jupiter 64 degrees high in the southwest and ends with Jupiter 39 degrees above the western horizon).

January 28, 2026, 7:04 PM to 9:20 PM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 39 degree high in the east and ends with Jupiter 64 degrees high in the east southeast.

January 29, 2026, 5:28 AM to 8:18 AM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter only 8 degrees high in the west-northwest and ends long after Jupiter sets).

February 1, 2026, 6:46 PM to 9:36 PM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter 39 degrees high in the east and ends with Jupiter 69 degrees high in the southeast.

February 3, 2026, 2:30 AM to 4:48 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 37 degrees high in the west and ends with Jupiter 11 degrees above the west-northwestern horizon).

February 4, 2026, 8:58 PM to 11:16 PM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 66 degrees high in the southeast and ends with Jupiter 70 degrees high in the south southwest.

February 8 to 9, 2026, 9:22 PM to 12:12 AM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter 71 degrees high in the south and ends with Jupiter 59 degrees high in the southwest).

COMETS IN 2026. Will there be a bright comet this year, like Comet NEOWISE (C/2020 F3) in 2020, Comet Tsuchinshan/ATLAS (C/2023 A3) in 2024, or Comet Lemmon (C/2025 A6) in 2025? Comet PanSTARRS (C/2024 R3) may become bright enough to view with binoculars by mid to late April, and there's a chance that it could become visible to our eyes unaided. The brightest comets of the past few years have been "wild comets", a term that some astronomers use for newly discovered comets that enter the inner Solar System from the distant Kuiper Belt or the more distant Oort Cloud. Let's hope for some bright, new "wild comets" in 2026!

Periodic Comet 24P/Schaumasse is now moving eastward through the southern part of Constellation Boötes. While not a "showstopper" at magnitude +9 to +10, you can view Comet 24P with a telescope, preferably before the Moon enters the morning sky around January 28 or 29. On January 12, 24P appeared as a diffuse glow with little sign of a tail. Photographs recorded a greenish tint (see below), likely due to emission from diatomic carbon. Comet Schaumasse is predicted to fade during this period, having been closest to Earth and the Sun on January 4 and 8, respectively. But, as of January 24, 24P is still near its maximum brightness (magnitude +9 to +10). See "real-time" brightness estimates and finder charts for Comet Schaumasse here…
https://astro.vanbuitenen.nl/comet/24

Periodic Comet 24P/Schaumasse on January 12, 2026. Photo by Art Trevena

WILL A BRIGHT NOVA ("NEW" STAR) APPEAR SOON? Will there be a bright "new" star in Constellation Corona Borealis sometime soon, at least briefly? Corona Borealis rises above the east-northeastern

horizon by 12:30 AM MST, and the Constellation is more than 50 degrees above the eastern horizon by 5 AM MST. 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 sometime in 2026. Then this "new star" may fade rapidly below naked-eye visibility in about a week. As of 5 AM (MST) on January 24, 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 November 4 (two!), 9, 10, and 14, December 1 and 8, and on January 18! Also, CMEs have triggered geomagnetic storms that caused auroras, including an aurora on the evening of January 19, which was observed and photographic from the Western Slope. As of January 24, there are several large active regions on the earth-facing side of the Sun, 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. Check out the following sites…
https://sohowww.nascom.nasa.gov/data/realtime-images.html
https://sdo.gsfc.nasa.gov/data/
https://stereo.gsfc.nasa.gov/beacon/
http://halpha.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"). With continuing high solar activity and associated coronal mass ejections, there may be 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!