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

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

March 24-28, 8:30 PM to 10 PM: Uranus near 6th magnitude star, 14 Tauri; note color contrast
March 25-27, 4:20 AM to 5:30 AM: Enjoy our spring & summer stars under a dark, moonless sky
March 25-26, 8 PM to 3 AM: Moon is northwest of Jupiter in Gemini
March 25-30, 5:45 AM to 6:00 AM: Spot Comet C/2025 R3 (PANSTARRS) low in the east northeast
March 27, 10:00 AM: Western Slope Skies on KVNF radio
March 29-30, 8:30 PM to 5 AM: Gibbous Moon is east of bright star, Regulus, in Leo
April 1, 6:00 PM: Western Slope Skies on KVNF radio
April 1, 7:35 PM to 8:15 PM: Watch the full Moon rise in the east southeast
April 2, 7:52 PM to 11:26 PM: "Primetime" transit of Ganymede's shadow across Jupiter- in telescopes
April 2-3, 9 PM to 6 AM: Gibbous Moon is southeast of bright star, Spica, in Virgo
April 2-6: Visit SOHO C3 site as Comet C/2026 A1 (MAPS) grazes the Sun (do NOT look toward Sun)
April 3, 7:24 PM to 11:36 PM: "Primetime" transit of Callisto's shadow across Jupiter- in telescopes
April 5-9, 9:20 PM to 11:30 PM: Enjoy our late winter & spring stars under a dark, moonless sky
April 6, 1 AM to 6 AM: Moon is west of bright, reddish star, Antares, in Scorpius
April 7, 7:00 PM to 8:30 PM: Craig Childs: The Wild Dark, Montrose Pavilion

SUMMARY. After sunset, Venus shines as a dazzling "evening star" above the western horizon and starts setting after twilight ends. As the sky darkens, bright Jupiter is high in the south to south southwest and remains visible in the western sky into the wee hours. By using a telescope during "primetime", we can view the shadows of Jupiter's two largest moons as they cross the Giant Planet: Ganymede's shadow transits Jupiter on April 2 from 7:52 PM to 11:26 PM MDT and Callisto's shadow transits Jupiter on April 3 from 7:24 PM to 11:36 PM MDT. With binoculars or a telescope, try to spot Uranus in the west during the early evening, especially from March 24 to 28, when it appears very near the 6th magnitude star, 14 Tauri; their contrasting colors may be striking. Mercury has reappeared in the predawn sky, but it could be challenging to spot the Innermost Planet very low above the east-southeastern horizon between 6:10 AM and 6:30 AM MDT (binoculars may help). Also in the predawn sky, look for Comet C/2025 R3 (PANSTARRS), which is brightening rapidly, low in the east northeast (use binoculars or a telescope).

The Moon reaches first quarter on March 25. From March 26 to 31, watch the gibbous Moon wax. The Moon is full on the night of April 1-2. From April 3 to 8, the gibbous Moon wanes. The Moon reaches last quarter on April 9. On April 1 between 7:35 and 8:15 PM MDT, watch the full Moon rise in the east southeast. Does it appear smaller than usual? Probably not. Even though the full Moon of April 1 is more distant than the average full Moon (about 244,000 miles, versus 238,000 miles) and appears slightly smaller than average, many of us may perceive the rising Moon as very large due to the Moon illusion effect.

As of March 24, there are large active regions on the Earth-facing side of the Sun. We may experience more M-class (moderate) and possibly X-class (extreme) flares and powerful coronal mass ejections (CMEs). It's possible that CMEs from the Sun could trigger auroras that are visible from the Western Slope. From April 2 to 6, visit the SOHO C3 coronagraph to virtually experience Sun-grazing Comet, C/2026 A1 (MAPS), as it approaches to within 100,000 miles of the Sun on April 4 (do NOT try to spot this Comet visually when it's near the Sun – view C3 videos instead!). Please do your Venus, Mercury, and comet spotting when the Sun is below the horizon; never risk viewing the Sun without adequate eye protection, as serious eye damage can result.

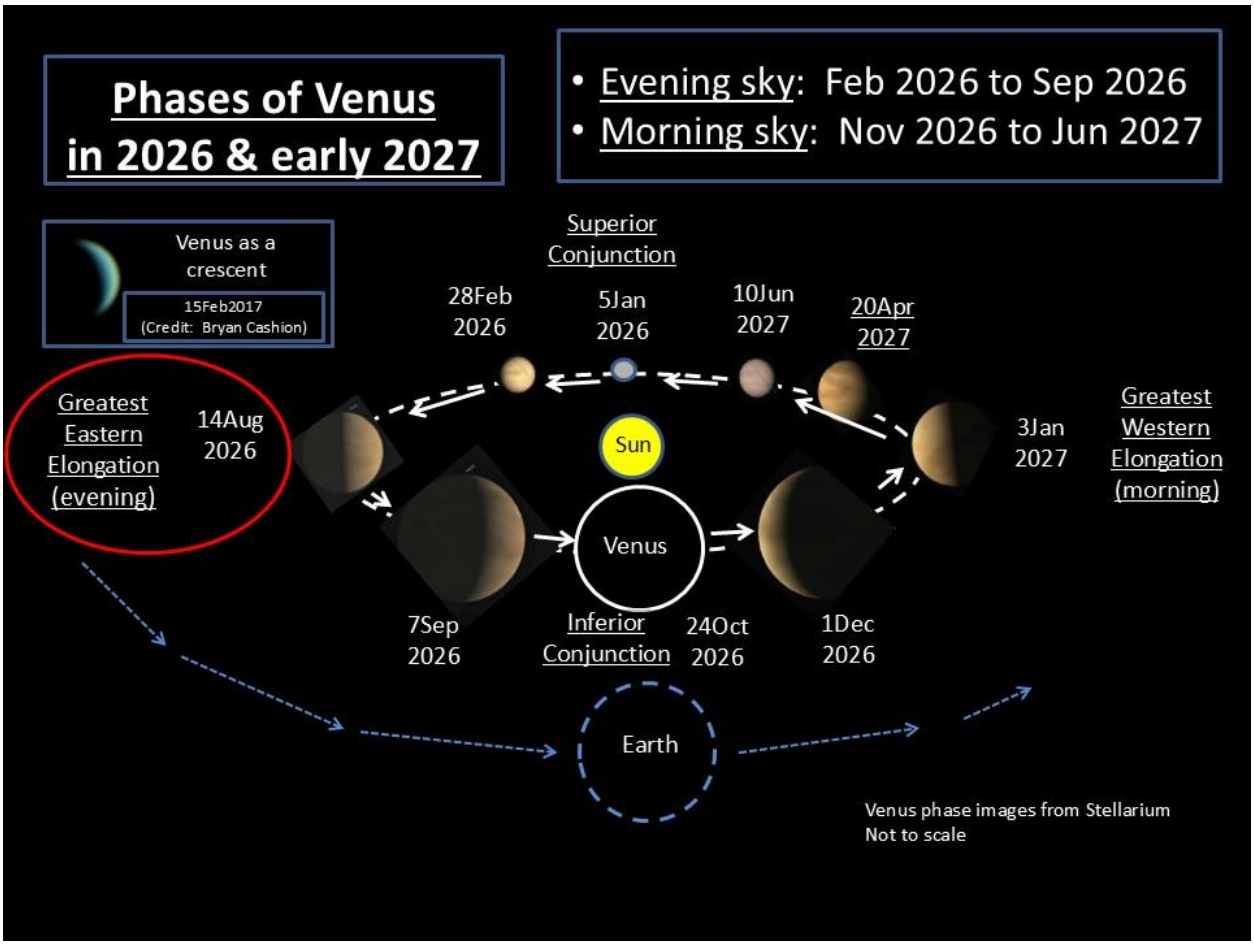
Numerous Earth satellites are visible every clear evening and morning. Find times for local passes of bright satellites, including the International Space Station and Tiangong, the Chinese Space Station, at these links...
https://www.heavens-above.com/
https://www.n2yo.com/passes/?s=25544

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 March 25** (exactly at 1:18 PM MDT). From March 26 to 31, watch the gibbous Moon wax. **The Moon is full on the night of April 1-2** (exactly full at 8:12 PM MDT on April 1). From April 3 to 8, the gibbous Moon wanes. The Moon reaches **last quarter on April 9** (exactly at 10:51 PM MDT). On April 1 between 7:35 and 8:15 PM MDT, watch the full Moon rise in the east southeast. Does it appear smaller than usual? Probably not. Even though the full Moon on April 1 is more distant than the average full Moon (about 244,000 miles Vs. 238,000 miles) and does appear slightly smaller than usual, many of us will perceive the rising Moon as large due to the Moon illusion effect.

On the night of March 25-26, the just-past-first-quarter Moon is northwest of bright Jupiter in Constellation Gemini, about as far north as the Moon can get in our sky (4° north of the ecliptic, the apparent path of the Sun through the sky). On the night of March 29-30, the waxing, 92%-illuminated, gibbous Moon is east of Regulus in Constellation Leo. On the night of April 2-3, the waning, 98%-illuminated gibbous Moon is southeast of Spica in Constellation Virgo. On the morning of April 6, the waning, 83%-illuminated, gibbous Moon is about 5 degrees west of reddish Antares in Constellation Scorpius. A fun website for enjoying the Moon is NASA's daily Moon Guide.

VENUS: BRILLIANT IN THE EVENING. After hiding in the glare of evening twilight during February, Venus is now a striking "evening star", shining brilliantly at magnitude -3.9. You can spot Earth's "Sister Planet" in the west shortly after sunset, and Venus remains visible for more than an hour afterward. Venus sets at the end of astronomical twilight at about 8:58 PM MDT on March 24, and well after twilight's end at about 9:35 PM MDT on April 9. Venus is 148 million miles distant on March 24 and 143 million miles distant on April 9. Through telescopes, Venus' gibbous phase wanes slightly from 95% illuminated on March 24, to 92% illuminated on April 9, as its distance from Earth decreases, and its apparent diameter increases from 10.5 to 10.9 arc seconds. Venus will remain as a dazzling "evening star" through the spring and summer months of 2026, and Venus will be especially striking around the time of its greatest eastern elongation from the Sun in August. The diagram below illustrates Venus' phases in 2026 and early 2027. **Please do your Venus spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**



URANUS. As the sky darkens, Uranus is still more than 35 degrees high in the west on March 24 but only about 25 degrees high on April 9. Try viewing Uranus in the early evening, when it's still relatively high in the sky. You can see the 7th Planet easily with binoculars, and perhaps even with eyes unaided when the Moon is below the horizon. You might try to spot Uranus between March 24 and 28, when the 7th Planet appears very near (within 10 arc seconds!) of the 6.1-magnitude star, 14 Tauri. At magnitude 5.8, Uranus is slightly brighter than 14 Tauri. With a telescope, can you resolve Uranus' 3.5 arc second-wide disk? Can you detect a difference in color between Uranus and 14 Tauri? Uranus typically appears blue or green to many people, while 14 Tauri (spectral class G8III, a "yellow" giant star) may appear yellow or white. The 7th Planet sets in the west northwest at about 11:56 PM MDT on March 24 and 10:56 PM MDT on April 9. Uranus is moving slowly against the stars of Constellation Taurus, less than 5 degrees south of the Pleiades Star Cluster. Use this link to find Uranus: https://theskylive.com/uranus-info
Uranus is 1.9 billion miles from Earth during this period.

JUPITER AND ITS LARGE MOONS. Bright Jupiter, moving against the stars of Gemini, is about 70 degrees high in the south and south southwest as darkness falls. Jupiter sets in the west northwest at around 3:30 AM MDT on March 25 and 2:33 AM MDT on April 9. Between March 24 and April 9, the Giant Planet fades from magnitude -2.25 to -2.14, as its distance from Earth increases from 461 million to 484 million miles, and its apparent diameter decreases from 39.7 to 37.9 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. 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. **But, we on the Western Slope are lucky during this period: There's a "primetime" transit of Ganymede's large shadow on April 2 between 7:52 PM and 11:26 PM MDT and a "primetime" transit of Callisto's shadow on April 3 between 7:24 PM and 11:36 PM MDT!** And there's another transit of Ganymede's shadow on April 9-10, starting at 11:52 PM MDT and ending long after Jupiter sets locally at about 2:30 AM MDT

March 24, 2026, 4:56 PM to 7:16 PM MDT, Io's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 46 degrees high in the east and ends about 10 minutes before sunset with Jupiter 70 degrees high in the south).

March 30, 2026, 12:22 AM to 2:42 AM MDT, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 31 degrees high in the west and ends with Jupiter just 5 degrees above the west-northwestern horizon).

March 31, 2026, 6:52 PM to 9:12 PM MDT, Io's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 71 degrees high in the southeast and ends with Jupiter 65 degrees high in the southwest after twilight ends).

April 2, 2026, 7:52 PM to 11:26 PM MDT, Ganymede's shadow crosses Jupiter (Locally, this event begins in bright twilight with Jupiter 74 degrees high in the south and the Sun only 4 degrees below the horizon and ends with Jupiter 39 degrees high in the west). See chart below.

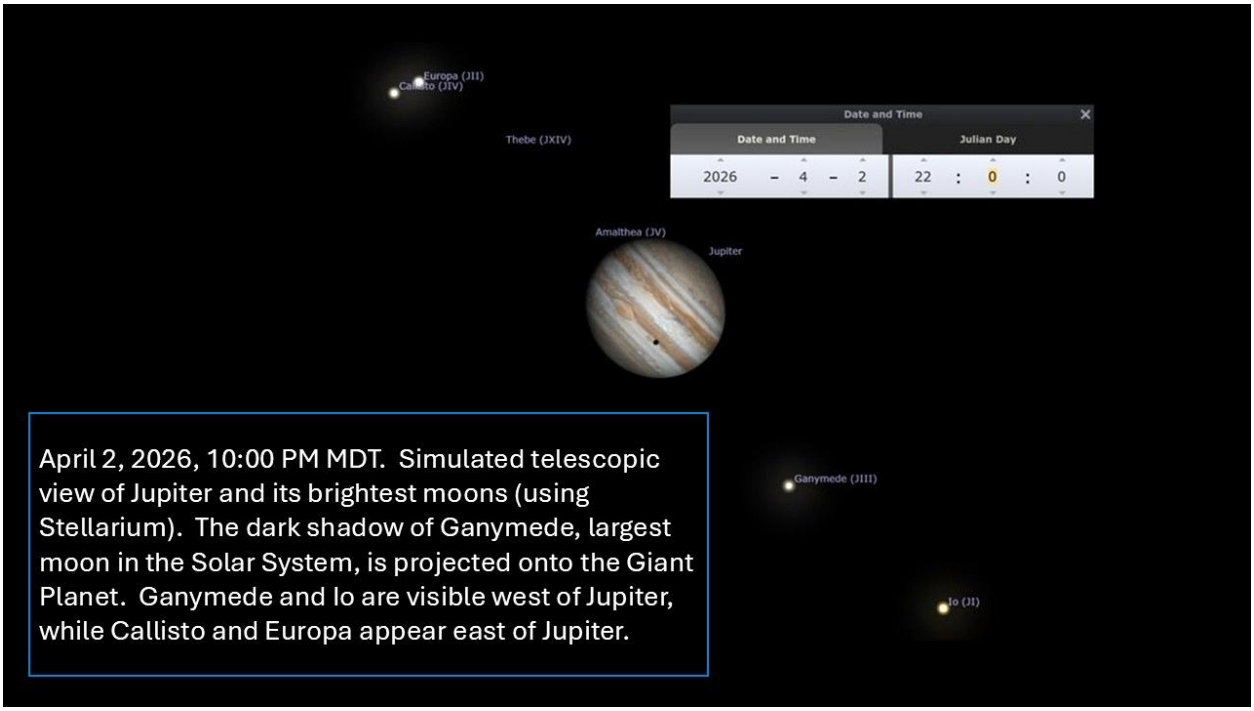
April 3, 2026, 7:24 PM to 11:36 PM MDT, Callisto's shadow crosses Jupiter (Locally this event begins with the Sun still 2 degrees above the horizon and Jupiter 74 degrees high in the south and ends with Jupiter 36 degrees high in the west).

April 6, 2026, 2:18 AM to 4:38 AM MDT, Io's shadow crosses Jupiter (Locally this event begins with Jupiter just 4 degrees above the west-northwestern horizon and ends at 4:38 PM MDT, long after Jupiter sets at about 2:45 PM MDT).

April 6, 2026, 7:06 PM to 10:00 PM MDT, Europa's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 74 degrees high in the south and ends with Jupiter 53 degrees high in the west).

April 7, 2026, 8:46 PM to 11:08 PM MDT, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 65 degrees high in the southwest and ends with Jupiter 39 degrees high in the west).

April 9 to 10, 2026, 11:52 PM to 3:26 AM MDT, Ganymede's shadow crosses Jupiter (Locally, this event begins with Jupiter 29 degrees high in the west and ends at 3:26 AM MDT, long after Jupiter sets at about 2:30 AM MST).



MERCURY: A CHALLENGE IN MORNING TWILIGHT. For much of February, Mercury made its second-best (or perhaps best?) evening appearance of 2026. By late February, Mercury had disappeared, as it moved rapidly toward inferior solar conjunction on March 7, passing invisibly just north of the Sun in our daytime sky. But by March 25 between 6:10 and 6:30 AM MDT, it may be possible to spot the "Speedster Planet" in morning twilight, as it rises 1 to 4 degrees above an unobstructed east-southeastern horizon. Try viewing through binoculars. Mercury gets a bit easier to spot at the end of March and into early April, as it brightens and its angular distance from the Sun increases. When at inferior solar conjunction on March 7, Mercury was 58 million miles from Earth. It's 70 million miles distant on March 25, 82 million miles distant on April 3 (when at greatest angular distance from the Sun), and 90 million miles distant on April 9. The Innermost Planet shines at magnitude +0.7 on March 25, and it brightens to magnitude +0.2 by April 9. Through telescopes on March 25, Mercury's 33%-illuminated crescent appears 9.0 arc seconds wide. Mercury' phase waxes to a 7.0 arc second-wide, 58%-illuminated, gibbous disk by April 9. **Please do your Mercury spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

COMET C/2025 R3 (PANSTARRS) BRIGHTENING BEFORE DAWN! Comet PANSTARRS is brightening rapidly in the predawn. Will this be the "Comet of the Century"? Probably not. But comets are hard to predict, and "you never know"! This could be our best comet of year 2026. Comet PANSTARRS is currently moving eastward through Constellation Pegasus, still inbound, prior to its April 19 perihelion (closest approach to the Sun of 46 million miles) and its April 26 closest approach to Earth (45 million miles). This Comet is predicted to reach naked eye visibility by early April, and it could be a dazzling sight in binoculars by the middle of April. On March 18 the Comet appeared as a fuzzy ball at magnitude 8. Twenty-second exposures revealed a greenish tint and a short, anti-sunward ion tail (see photo below). The tail will likely brighten and extend as the Comet gets closer to the Sun. To spot Comet PANSTARRS, go out before dawn, find a place with an unobstructed eastern horizon, and scan low in the east-northeast just before the onset of bright twilight (use binoculars). It might be best to do your

searching when the Moon is absent, e.g., March 25 to 30 from 5:45 AM to 6:00 AM MDT, and then somewhat earlier in the mornings between April 16 to 19 (before twilight interferes). After April 19, it may get difficult to spot this Comet from Colorado's mid northern latitudes. You can find brightness estimates, finder charts, and an ephemeris (coordinates in right ascension and declination) for C/2025 R3 (PANSTARRS) at this link…https://astro.vanbuitenen.nl/comet/2025R3
Please do your PANSTARRS spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.

C/2025 R3 (PANSTARRS) on March 18, 2026, as imaged from the Western Slope with a 12.5" telescope through unsteady air low to the horizon. Note greenish tint and a short ion tail (extending up and to the right). On March 18, C/2025 R3 was 83 million miles from the Sun and 152 million miles from Earth. Photo by Art Trevena

COMET C/2026 A1 (MAPS) GRAZES THE SUN: APRIL 4! The safe way to observe this Sun-grazing comet is virtually (**NOT visually**) by visiting real-time, online images from coronagraphs in space. Comet MAPS is forecast to become very bright, but only briefly around April 4, when it is very near the Sun in our daytime sky. There's also a chance that Comet MAPS could break up early and "fizzle out." It will not be safe to view the Comet when it's near the Sun. Comet MAPS (or what remains of it) passes only 100,000 miles from the Sun's surface on April 4; that's less than the Sun's diameter of 864,000 miles! The Comet's diameter is estimated at only 0.4 km (several hundred yards!), so it's likely that Comet MAPS will be destroyed by the Sun's heat on April 4, or even before April 4. Visit the site of the C3 coronagraph on the Solar and Heliospheric Observatory (SOHO) from April 2 to 4, and then from April 4 to April 6 (in case the Comet survives its brush with the Sun). Videos from the C3 coronagraph can be amazing! It's possible (but unlikely?) that from April 2 to April 8, we might see an extended tail from Comet MAPS above our western horizon during mid-to-late evening twilight. Comet C/2026 A1 (MAPS) was discovered by the MAPS Program from an observatory in Chile. It belongs to a class of comets called Kreutz Sungrazers, which share similar orbits and are believed to be remnants of a large comet that disintegrated in ancient times. **Do NOT try to view this Comet when the Sun is above the horizon. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

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 9:30 PM MDT, and the Constellation is more than 70 degrees high in the south at 5:00 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 MDT on March 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 is still active, and as of March 24, there are several big sunspot groups on the Earth-facing side of the Sun. There have been M-class (moderate) solar flares during recent weeks, and there were five X-class (extreme) flares in early February. Also, coronal mass ejections (CMEs) have triggered geomagnetic storms that caused auroras, including an aurora on the night of January 19-20, which was observed and photographed from the Western Slope. 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://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"). We are still in an active part of the solar cycle, and 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, another aurora on the evening of January 19 and early morning of January 20, 2026 , and an "aurora burst" on March 13 (thanks to BCAS member Aaron Watson for posting some of his great aurora images!). 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 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!