BCAS OBSERVING HIGHLIGHTS for April 9 to 23, 2026, a "dark Moon period"
Black Canyon Astronomical Society (BCAS), southwest-central Colorado, USA

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

April 8-17, 9:30 PM to 11:30 PM: Enjoy our late winter & spring stars under a dark, moonless sky
April 9-19, 5:15 AM to 5:45 AM: Spot bright Comet C/2025 R3 (PANSTARRS) low in east northeast
April 10, 10:00 AM: Western Slope Skies on KVNF radio
April 14-23, 3:00 AM to 4:45 AM: Enjoy our spring & summer stars under a dark, moonless sky
April 15, 5:50 AM to 6:05 AM: Crescent Moon 4 degrees above Mercury, very low in the east
April 15, 6:00 PM: Western Slope Skies on KVNF radio
April 18, 8:30 PM to 9:30 PM: Crescent Moon is 5° to right of brilliant Venus in west northwest
April 19-21,5:50 AM to 5:56 AM: Mercury-Saturn-Mars, low to eastern horizon (use binoculars)
April 21-22, 10:30 PM to 5:00 AM: April Lyrid Meteor Shower peaks (probably best in wee hours)
April 22-23, 8:30 PM to 1 AM: Crescent Moon above bright Planet Jupiter in southwest and west

SUMMARY. On evenings from April 8 to 17, look to the west to catch a parting glance at Orion and other winter constellations under dark, moonless skies. Our spring constellations Leo, Virgo, and Boötes are rising higher in the sky, but those winter constellations soon will be disappearing into lengthening evening twilight. Venus is a brilliant "evening star", visible for more than an hour and a half after sunset. Bright Jupiter is high in the southwest as the sky darkens, and the Giant Planet remains visible in the west until after 1:30 AM MDT.

Early risers during this dark Moon period are rewarded by spectacles in the predawn sky: Views of bright Comet C/2025 R3 (PANSTARRS) near the east-northeastern horizon from April 9 to 19 (possibly our best comet of 2026!); binocular views of a tight grouping of Mercury, Saturn, and Mars low to the eastern horizon from April 19 to 21; and the peak of the April Lyrid Meteor Shower during the wee hours of April 22. April Lyrid Meteors may be most numerous an hour or two before the onset of bright morning twilight, when you may see as many as 18 meteors per hour. The April Lyrids appear to originate from a "radiant" near the Lyra-Hercules constellation boundary, but you can see meteors all over the sky. No special equipment is needed to see meteors, just a reclining chair, a warm sleeping bag, and most importantly, a dark location. While viewing April Lyrid Meteors in the wee hours, be sure to preview the striking stars and constellations of our summer evenings. At 4:45 AM MDT the Milky Way extends from Scorpius in the south, through its bright central region within Sagittarius in the south southeast, through Cygnus in the east, into Cassiopeia in the north northeast. The Summer Triangle, consisting of bright stars Vega, Altair, and Deneb, is rising high in the east, as the constellations of spring descend in the west.

The Moon reaches last quarter on the night of April 9-10, and from April 11 to 16, the crescent Moon wanes in the morning sky. The Moon is new on April 17. Between April 18 and 22, watch the crescent Moon wax in the evening sky. The Moon reaches first quarter on the night of April 23-24. Enjoy seeing earthshine delicately illuminate the nightside of the crescent Moon, especially on mornings from April 12 to 15, and on evenings from April 18 to 21 (binoculars can provide eye-catching views!).

As of April 8, the big solar active regions that were visible between March 25 and April 7 are rotating out of view, but two active regions with sunspots have appeared on the approaching limb of the Sun. We may experience more solar flares and coronal mass ejections (CMEs) during this period. It's possible that CMEs from the Sun could trigger auroras that are visible from the Western Slope.

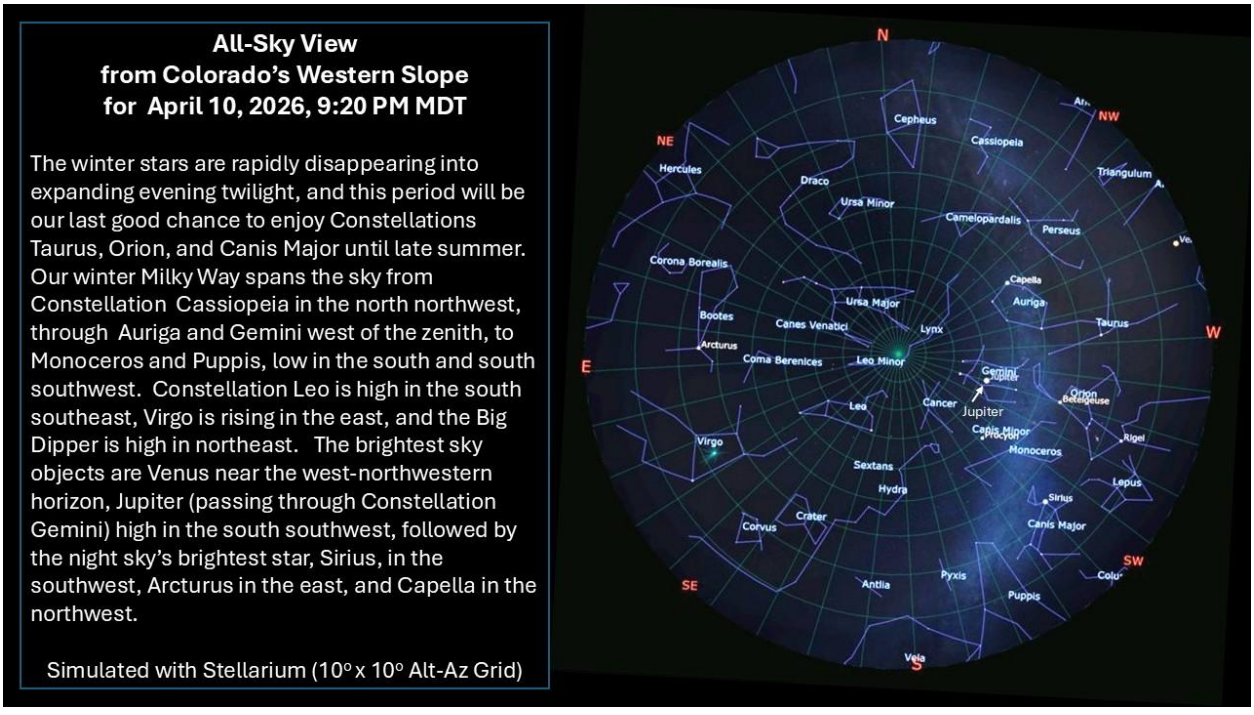
Please do your planet and comet spotting when the Sun is below the horizon; never risk viewing the Sun without adequate eye protection, as serious eye damage can result. View the Sun safely and in "real-time" via the internet.

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

ENJOY APRIL EVENINGS UNDER A DARK, MOONLESS SKY! As our spring constellations get higher in the sky, our winter constellations will soon be disappearing into lengthening evening twilight (use a planetarium app or the chart below to navigate). From April 8 to 17, look to the west to catch a parting glance of Orion and other winter constellations under dark, moonless skies. The winter Milky Way extends from Cassiopeia in the north northwest, through Auriga in the northwest and Gemini in the west, to Monoceros, Canis Major, and Puppis in the southwest and south southwest. Constellation Leo is rising high in the south, as Boötes rises in the east northeast. This is a great time to view the three largest constellations by area, Hydra (the very largest, now in the south to southeastern evening sky), Virgo (2nd largest, now rising in the east) and Ursa Major (3rd largest, including the Big Dipper asterism) high in the northeast.

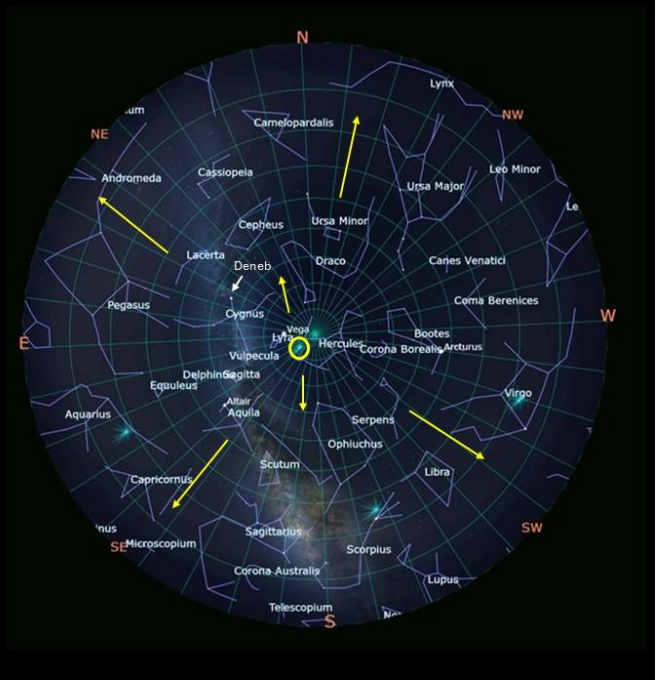


APRIL LYRID METEORS UNDER A STARRY, MOONLESS, MORNING SKY. The night of April 21-22 is the predicted peak of the April Lyrid Meteor Shower, which consists of debris from Comet C/1861 G1 (Thatcher). You might see a few April Lyrids as early as 10:30 PM MDT on April 21, but meteor rates will likely increase after the Moon sets at about 1:30 PM MDT, as the radiant (apparent origin point of meteors on the sky) rises higher. Meteor rates may be highest just before the onset of bright morning twilight. Between 3:30 AM and 5:00 AM MDT on April 22, you may see as many as 18 April Lyrid Meteors per hour. If clouds are forecast for April 22, you can look for April Lyrids on several mornings either before and/or after that date (but meteor rates will likely be lower than on April 22). While April Lyrid Meteors appear to originate from a "radiant" near the Lyra-Hercules constellation boundary, you may see meteors all over the sky. No special equipment is needed to see meteors, just a reclining chair, warm clothes or sleeping bag, and most importantly, a dark location. While viewing April Lyrid Meteors, be sure to take in the striking sights of a moonless, early morning sky (to navigate, use a planetarium app or the chart below). By 4:45 AM MDT, the Milky Way extends from Scorpius in the south, through its bright central region in Sagittarius in the south southeast, through Cygnus in the east, and into Cassiopeia in the north northeast. The Summer Triangle, consisting of bright stars Vega, Altair, and Deneb, is rising high in the east, as the constellations of spring descend in the west,

All-Sky View
from Colorado's Western Slope
for April 22, 2026, 4:45 AM MDT

The spring stars are now descending in the western sky, and the constellations and stars of summer evenings are well above the horizon. The Milky Way spans the sky from its bright central region within Constellations Scorpius and Sagittarius in the south to its somewhat fainter reaches in Aquila, Cygnus, and Cassiopeia to the east and northeast. The Summer Triangle, consisting of bright stars Vega in Lyra, Altair in Aquila, and Deneb in Cygnus, is high in the east. The Big Dipper is descending in the northwest, but the radiant of the April Lyrid Meteor Shower (circled in yellow) is nearly overhead, allowing for good views of April Lyrid Meteors (yellow arrows), which reach their predicted maximum on April 22.

Simulated using Stellarium
for western Colorado with 10° x 10° Alt-Az Grid



THE MOON. The Moon reaches **last quarter on the night of April 9-10** (exactly at 10:51 PM MDT on April 9), and from April 11 to 16, the crescent Moon wanes. The **Moon is new on April 17** (exactly new at 5:52 AM MDT). Between April 18 and 22, watch the crescent Moon wax in the evening sky. **The Moon reaches first quarter on the night of April 23-24** (exactly at 8:32 PM MDT on April 23).

On April 15 from 5:50 to 6:05 AM MDT, the 5%-illuminated, waning crescent Moon is 4 degrees above Mercury low in the east (with binoculars, challenge yourself to spot fainter Mars, about 5 degrees below and left of the Moon). On April 18 from 8:30 PM to 9:30 PM MDT, look for the 4%-illuminated, waxing crescent Moon is in the west northwest, about 5 degrees to the right of brilliant Venus. On the night of April 22-23 from 8:30 PM to 1 AM MDT, look for a fatter crescent Moon (39% illuminated) above the bright Planet Jupiter. Enjoy seeing earthshine delicately illuminate the nightside of the crescent Moon,

especially on mornings from April 12 to 15, and on evenings from April 18 to 21 (binoculars can provide eye-catching views!). A fun website for enjoying the Moon is NASA's daily Moon Guide. **Please do your crescent Moon spotting before sunrise and after sunset. NEVER chance looking at the Sun directly; serious eye damage can result.**

VENUS: A BRILLIANT "EVENING STAR." Venus is a striking "evening star", shining brilliantly at magnitude -3.9, as the sky darkens. You can spot Earth's "Sister Planet" in the west shortly after sunset, and Venus remains visible for more than an hour and a half afterward. Venus sets well after twilight's end at about 9:33 PM MDT on April 8 and 10:08 PM MDT on April 23. Venus is 143 million miles distant on April 8 and 137 million miles distant on April 23. Through telescopes, Venus' gibbous phase wanes from 92% illuminated on April 8 to 90% illuminated on April 23, as its distance from Earth decreases, and its apparent diameter increases from 10.5 to 11.3 arc seconds. Venus will remain 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. On April 18 from 8:30 PM to 9:30 PM MDT, look for the 4%-illuminated crescent Moon to the right of brilliant Venus in the west northwest. **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 only 25 degrees high in the west on April 8 and lower still by April 23, when it's only 1 degree below and left from brilliant Venus. Try viewing Uranus as early as possible, before it gets too low 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. With a telescope, can you resolve Uranus' 3.5 arc second-wide disk? Can you detect the color of Uranus? Uranus typically appears blue or green to many people. The 7th Planet sets in the west northwest at about 11:00 PM MDT on April 8 and 10:05 PM MDT on April 23. Uranus is moving slowly against the stars of Constellation Taurus, less than 7 degrees south of the Pleiades Star Cluster. Use this link to find Uranus: https://theskylive.com/uranus-info
Uranus is 1.89 billion miles from Earth during this period.

JUPITER AND ITS LARGE MOONS. Bright Jupiter, moving against the stars of Gemini, is more than 55 degrees high in the southwest as darkness falls. Jupiter sets in the west northwest at around 2:31 AM MDT on April 8 and 1:45 AM MDT on April 23. Between April 8 and 23, the Giant Planet fades from magnitude -2.14 to -2.06, as its distance from Earth increases from 482 million to 504 million miles, and its apparent diameter decreases from 38.0 to 36.3 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. Locally, we can view the start of a transit of Ganymede shadow on the night of April 9-10 from 11:52 PM until Jupiter sets at about 2:30 AM MDT. 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.

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 MDT).

April 13 to 14, 9:42 PM to 12:34 AM MDT, Europa's shadow crosses Jupiter (Locally this event begins with Jupiter 51 degrees high in the west and ends with Jupiter 18 degrees above the west-northwestern horizon).

April 14 to 15, 2026, 10:42 PM to 1:02 AM MDT, Io's shadow crosses Jupiter (Locally, this event with Jupiter 39 degrees high in the west and ends with Jupiter 12 degrees above the west-northwestern horizon).

April 21, 2026, 12:18 AM to 3:10 AM MDT, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter only 16 degrees high in the west northwest and ends at 3:10 AM MDT, long after Jupiter sets at around 1:51 AM MDT).

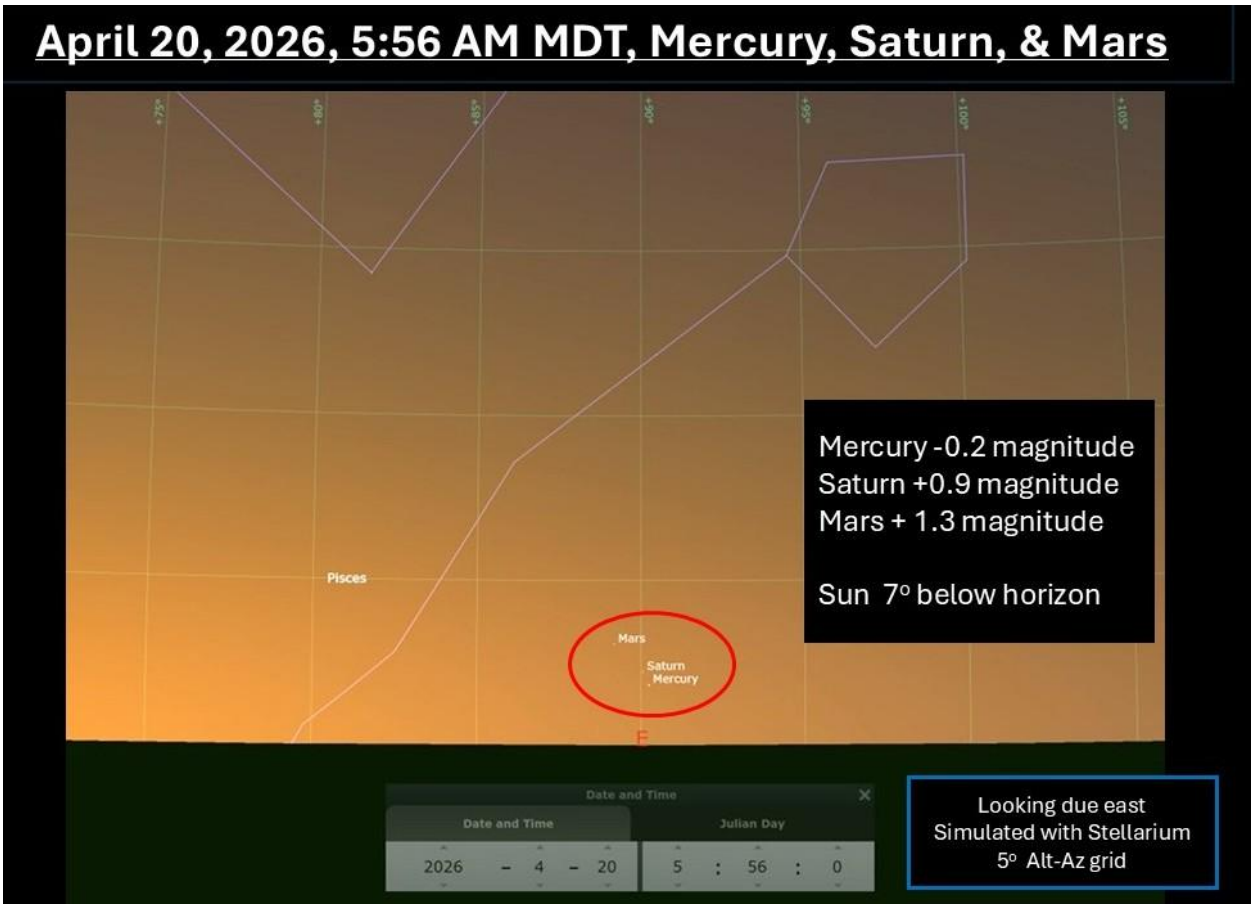
April 22, 2026, 12:38 AM to 2:58 AM MDT, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter only 12 degrees high in the west northwest and ends at 2:58 AM MDT, long after Jupiter sets at about 1:49 AM MDT).

April 23, 2026, 7:06 PM to 9:28 PM MDT, Io's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 71 degrees high in the southwest and ends after dark with Jupiter 47 degrees high in the west).

MERCURY: A CHALLENGE IN MORNING TWILIGHT. By March 25, Mercury, the Innermost Planet, had reappeared in the predawn sky. But for the past 2 weeks, the "Speedster Planet" has been challenging to spot in bright morning twilight. Mercury is now getting brighter and a bit easier to spot (at least with binoculars) in moderate morning twilight low to the east-southeastern horizon. If you can find a place with an unobstructed eastern horizon, you may be able to spot the Innermost Planet between 5:55 AM and 6:05 AM MDT lying just 1 to 3 degrees above that horizon (locally, the Sun will be only 6 to 7 degrees below the horizon, so twilight will be bright). Between April 9 and 23 Mercury brightens from magnitude + 0.2 to -0.3, but it may not get too much easier to see, because its angular separation from the Sun is decreasing as it descends into brighter twilight. Binoculars may help you spot Mercury during this period. As seen through telescopes between April 9 and 23, the apparent diameter of Mercury's gibbous disk decreases from 7.0 and 5.8 arc seconds, and it waxes from 58% to 76% illuminated, as Mercury's distance from Earth increases from 90 million to 108 million miles. From April 19 to 21, the "Speedster Planet" forms a tight grouping with Mars and Saturn, which are just becoming visible in the predawn sky (see item below). **Please do your Mercury spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

MERCURY-SATURN-MARS GROUPING: A CHALLENGE FOR APRIL 19-21. For early risers, here's a challenge! Find a spot with an unobstructed eastern horizon on April 19, 20 and/or 21, between 5:55 AM and 6:05 AM MDT and scan that horizon with binoculars. You may be able to see 3 planets, tightly grouped within a few degrees of each other very low to the horizon (see chart below). Mercury at magnitude -0.2 will be the brightest of this trio. Saturn and Mars are considerably fainter (at magnitudes +0.9 and +1.3, respectively), but all three planets are likely visible in binoculars. While these planets appear close together from our perspective on April 20, they are at very different distances from us: Mercury at 104 million miles, Mars at 210 million miles, and Saturn at 967 million miles. This may be

our first good chance to see Mars after its January 9 solar conjunction. In coming months, Mars will steadily brighten as Earth draws nearer to the Red Planet, culminating during Mars' opposition to the Sun in February 2027. Saturn will be well placed for evening viewing by next fall. **Please do your Mercury-Saturn-Mars spotting before sunrise. 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 PM MDT, and the Constellation is more than 70 degrees high in the south between 3 and 5 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 April 8, T CrB had not yet erupted. Astronomer Jean Schneider predicted that an eruption is most likely on or about June 25, 2026, or on February 8, 2027. 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

COMET C/2025 R3 (PANSTARRS) BRIGHT BEFORE DAWN: APRIL 9 to 19! Comet PANSTARRS is brightening rapidly in the predawn. On the morning of April 8, Comet PANSTARRS was shining through

bright moonlight at magnitude +5.5. The coma (head) of the Comet appeared bright in 8x42 binoculars, and I could detect a faint tail. Twenty-five second exposures though a telescope revealed a bright, greenish coma and an ion tail, extending away from the Sun (see photo, below). Between April 9 and 19, the Comet will likely brighten (to between magnitude +3.5 to 0?) and its tail may brighten and extend further, as it moves eastward through Constellation Pegasus, becoming visible to eyes unaided. The tail should get easier to spot as the Moon wanes, especially after the crescent Moon leaves the morning sky by April 16. This Comet may be an impressive sight, especially in binoculars. Although probably not the "Comet of the Century", Comet PANSTARRS may be the best comet of 2026. C/2025R3 reaches perihelion (closest approach to the Sun) on April 19 at 46 million miles. The Comet will be closest to Earth on April 26 (at 45 million miles), but probably it will not be visible after April 19 from Colorado's mid-northern latitudes. To spot Comet PANSTARRS, go out just before bright morning twilight on clear mornings between April 9 and 19, find a place with an unobstructed eastern horizon, and scan low in the east-northeast within the "great square" of Constellation Pegasus (use binoculars for the best views). You can find brightness estimates, finder charts, and an ephemeris (coordinates in right ascension and declination) for C/2025 R3 (PANSTARRS) at these links…
https://astro.vanbuitenen.nl/comet/2025R3
https://theskylive.com/c2025r3-info
http://aerith.net/comet/catalog/2025R3/2025R3.html
Please do your PANSTARRS spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.

C/2025R3 (PANSTARRS) in bright moonlight, April 8, 2026 (by Art Trevena)
12.5" telescope, 25 seconds X 6

THE SUN. As of April 8, the large sunspot groups that were visible between March 25 and April 7 are rotating out of view, but two new active regions with sunspots have appeared on the approaching limb of the Sun. There have been M-class (moderate) solar flares during recent weeks, and there was an X-class (extreme) flare on March 30. More solar flares may occur during this period. Also, coronal mass ejections (CMEs) have triggered geomagnetic storms that caused auroras during the past few months, some of which were 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://umbra.nascom.nasa.gov/newsite/images.html
https://stereo-ssc.nascom.nasa.gov/
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 (note: this site has recently been "down"):
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!