BCAS OBSERVING HIGHLIGHTS for November 11 to 28, 2025, a "dark Moon period"
Black Canyon Astronomical Society (BCAS), southwest-central Colorado, USA

DATES & TIMES (MST) FOR REGIONAL EVENTS AND EYE-CATCHING HAPPENINGS IN THE SKY:
November 10-22, 6:20 to 11 PM: Enjoy the fall stars and lingering summer stars under a dark sky!
November 10-20, 5:50 to 6:30 PM: Spot bright Comet Lemmon (C/2025 A6) in the southwest!
November 10-11 (& following nights) 5:45-6:45 PM & 5:30-6:10 AM: Has T Corona Borealis erupted?
November 12, 6:00 PM: Western Slope Skies on KVNF radio
November 17, 1 to 6 AM: Leonid Meteor Shower peaks, 15 meteors/hour max rate (?)
November 18, 6:00 to 6:30 AM: Waning crescent Moon near Venus
November 18-19, 4:00 to 6:00 AM: Interstellar Comet 3I/ATLAS near the star Porrima in Virgo
November 19 to 28, midnight to 6 AM: Preview the bright winter stars under a dark sky!
November 21, midnight to 6 AM: Alpha Monocerotid Meteor Shower peaks, < 5 meteors per hour (?)
November 21, 10:00 AM: Western Slope Skies on KVNF radio
November 25, 6:15 to 6:25 AM: Mercury 1.5 degrees from Venus (use binoculars)!
November 26, 4:00 to 6:00 AM: Interstellar Comet 3I/ATLAS near the star Zaniah in Virgo
November 26, 6:00 PM: Western Slope Skies on KVNF radio

SUMMARY.
This dark moon period is a wonderful time to enjoy the rising constellations of fall and the lingering summer stars during the evenings and to preview the stars of winter in the predawn hours. We can still spot Comet Lemmon (C/2025 A6) very low in the southwestern evening sky until about November 20. And before dawn with telescopes, we can view two comets: Interstellar Comet 3I/ATLAS and Comet C/2025 K1 (ATLAS), a visitor from the outermost fringes of our Solar System. Meteors (aka "shooting stars") may be more common than usual, as several meteor showers reach their peaks: the Northern Taurids, the Leonids, and the Alpha Monocerotids.

The Moon reaches last quarter on the night of November 11-12, and from November 13 to 19 the crescent Moon wanes in the morning sky. The Moon is new on November 20, and from November 22 to 26, we can watch the crescent Moon wax during the evenings. The Moon reaches first quarter on the night of November 27-28. Enjoy seeing earthshine delicately illuminate the nightside of the crescent Moon, especially on mornings from November 14 to 18 and on evenings from November 22 to 25 (binoculars can provide eye-catching views!).

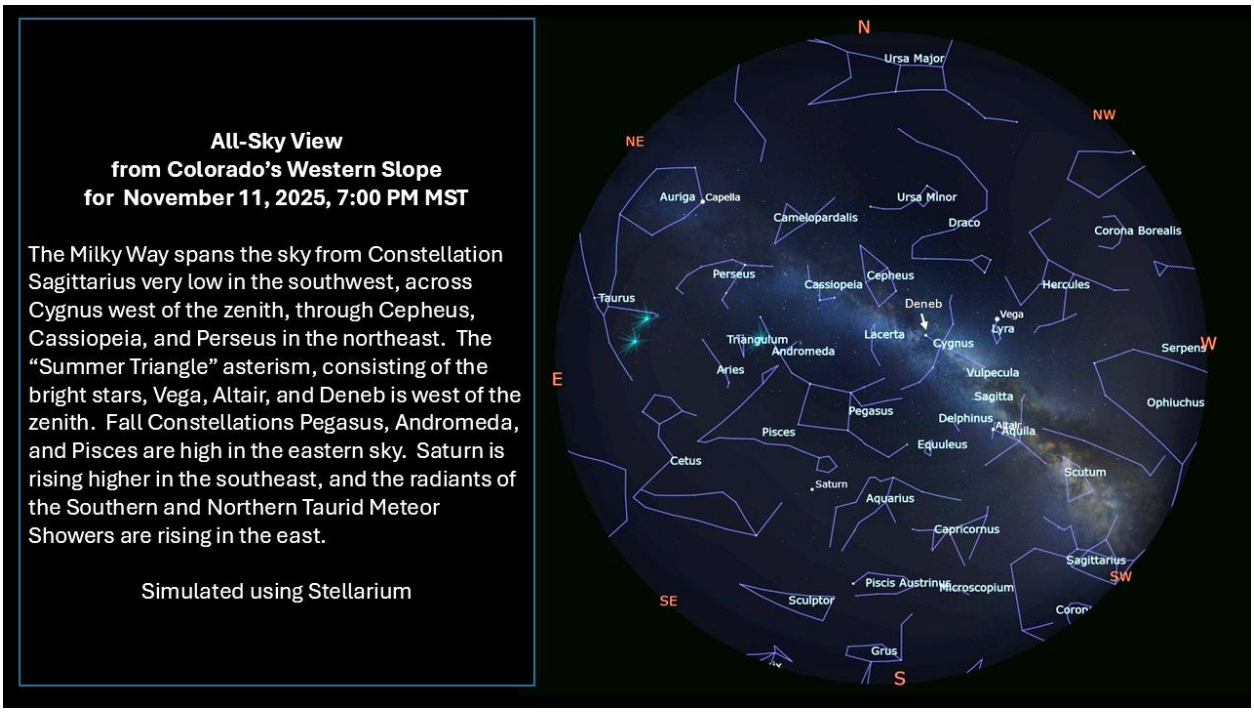
Saturn is prominent in the southeast as the sky darkens, with Neptune conveniently nearby for telescopic viewing. Uranus, moving against the stars of Taurus, is directly opposite the Sun in our sky on November 21, making this the best time of year to view the 7th Planet with binoculars or a telescope. Jupiter rises in the east northeast before 9:30 PM MST and remains visible into morning twilight. Using telescopes during this period, we on the Western Slope can view shadows of all four of Jupiter's largest moons, as they cross the Giant Planet. Morning-by-morning, Venus is rising later, but our "Sister Planet" is still a brilliant "morning star" in predawn twilight. By about November 24, Mercury joins Venus as an another "morning star." On November 25 between 6:15 and 6:25 AM MST, use binoculars to spot Mercury about 1.5 degrees above and left of Venus.

There is a very large active region on the Earth-facing side of the Sun that has been producing extreme solar flares and coronal mass ejections during the past week. Coronal mass ejections can trigger auroras (aka northern lights) and Stable Aurora Red Arcs (SARs), which could be visible from Colorado. Never risk looking toward the Sun without safe, specialized solar filters. You can monitor solar activity safely on the internet.

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

ENJOY THE STARS ON DARK NOVEMBER EVENINGS! Go outside on clear evenings during this dark Moon period to take in the constellations of fall that are rising in the east and the stars of summer that are still lingering in the west. Use a planetarium app or the chart below to navigate. At 7 PM MST, the "summer triangle" of bright stars, Vega, Altair, and Deneb is still prominent west of the zenith. Stars in autumn Constellations, Aquarius, Pegasus, Perseus, Andromeda, Pisces, and Aries are rising high in the east. First-magnitude Saturn moves slowly against the stars near the border of Aquarius and Pisces. In the absence of moonlight, the Milky Way is easily visible from its brighter central regions in Sagittarius near the southwestern horizon, through Cygnus and Lacerta west of the zenith, to its fainter outer regions in Perseus and Auriga in the northeast.

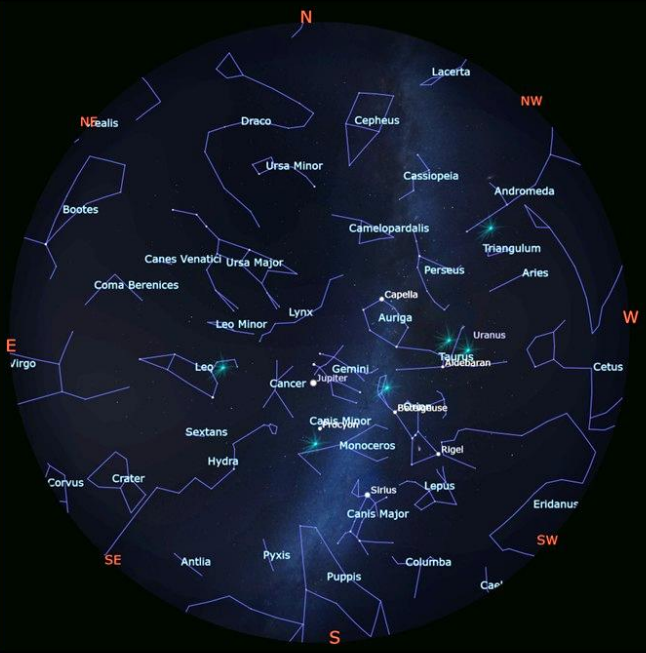


PREVIEW THE BRIGHT STARS OF WINTER BEFORE DAWN. During late November between 4 and 5 AM MST, the sky appears much as it will on the evenings of next February. This is a great time to preview the striking stars and constellations of winter. Use a planetarium app or the chart below to navigate. Constellation Orion, with bright, reddish Betelgeuse and blue-white Rigel, is high in the southwest, Auriga with bright yellowish Capella is nearly overhead, Gemini with its twin stars, Pollux and Castor and that bright "wanderer", Jupiter, is high in the south, and Sirius, the night sky's brightest star, is more than 30 degrees above the southern horizon. The "winter" Milky Way extends from near the southern horizon in Constellation Puppis, through Auriga just west of the zenith, to Cassiopeia, Cepheus, and Lacerta in the north northwest. At 4 AM MST on November 17, the waning crescent Moon has yet to rise, so this may be a great time for spotting meteors during the predicted peak of the Leonid Meteor Shower. And it's possible that we may also see some bright fireball meteors from the Northern and/or Southern Taurid Showers and some Alpha Monocerotid meteors (see section on "November Meteors", below).

All-Sky View
from Colorado's Western Slope
for November 17, 2025, 4:00 AM MST

The waning crescent Moon has not yet risen at 4:00 AM MST, and the sky is dark. The radiant of the peaking Leonid Meteor Shower is high in the east, and many striking constellations of winter are high in the western sky, including Orion, with bright blue-white Rigel and reddish Betelgeuse. Constellation Auriga, with bright, yellow Capella, is just west of zenith, and Constellation Taurus, with its bright reddish star, Aldebaran, is still high in the west. Sirius, the night sky's brightest star is high in the south. The "winter" Milky Way spans the sky from the southern horizon, to west of the zenith, into the north northwest. Bright Jupiter is high in the south, near Gemini's "twin stars", Pollux and Castor.

Simulated using Stellarium



THE MOON. The Moon reaches **last quarter on the night of November 11-12** (exactly at 11:28 PM MST on November 11), and from November 13 to 19, the crescent Moon wanes. The **Moon is new on November 20** (exactly new at 12:47 AM MST). Between November 22 and 26, watch the crescent Moon wax in the evening sky. **The Moon reaches first quarter on the night of November 27-28** (exactly at 12:59 AM MST on November 28). On November 18 from 6:00 to 6:30 AM MST, look for a thin (3%-illuminated) lunar crescent about 6 degrees above and to the right of brilliant Venus in predawn twilight. Enjoy seeing earthshine delicately illuminate the nightside of the crescent Moon, especially on mornings from November 14 to 18 and on evenings from November 22 to 25 (binoculars can provide eye-catching views!). NASA has published a stunning visualization of lunar phases for year 2025. Another fun site 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.**

A BRIGHT COMET IN THE EVENING SKY - C/2025 A6 (Lemmon)! Comet Lemmon (C/2025 A6) has distinguished itself as the brightest comet of 2025, becoming easily visible to unaided eyes and very impressive in binoculars during October and early November. Comet Lemmon is now moving south rapidly, and you'll need clear, dark skies, and an unobstructed southwestern horizon to get a good view of this Comet. You can see it best from November 10 to 20 from about 5:50 PM to 6:30 PM MST. Binoculars will help! C/2025 A6 is currently moving against the stars of southern Ophiuchus, fading from about magnitude +4 to +6. After November 23, Comet Lemmon moves into southern Scorpius, and then several far southern constellations, putting it out of reach from Colorado's mid-northern latitudes. Comet Lemmon's current orbital period is 1150 years. During October and early November, C/2025 A6 developed both a bluish ion tail and a yellowish dust tail as it moved through the inner Solar System. The Comet was closest to Earth on October 21 (55 million miles) and passed perihelion (its closest point to the Sun, 49 million miles) on November 8, and it is now moving away from both the Earth and the Sun. C/2025 A6 (Lemmon) was discovered by the Mount Lemmon Survey in southern Arizona, hence the name. Find updates, photos, finder charts, and ephemerides for Comet Lemmon here…

https://theskylive.com/c2025a6-info
C/2025 A6 (Lemmon) | astro.vanbuitenen.nl
http://www.aerith.net/comet/catalog/2025A6/2025A6.html
https://en.wikipedia.org/wiki/C/2025_A6_(Lemmon)
Please do your Comet Lemmon spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.

NOVEMBER METEORS. Several meteor showers are active during November, including the Taurids, Leonids, and Alpha Monocerotids. You don't need any equipment to see meteors, just a dark location, a comfortable reclining chair, and a warm sleeping bag. Showers are named for their radiants (apparent origin points on the sky), but shower meteors generally appear all over the sky, even quite far from their radiants. To see many meteors, it's best to look high in the sky in a direction away from any ambient lighting or moonlight. Some notes follow on these November meteor showers, including typical zenith hourly rate (abbreviated as ZHR: the number of meteors that a single observer can see under transparent, dark skies with the radiant at zenith).

Taurid Meteors include the Southern Taurids (peaking Nov 4-5, ZHR = 3) and Northern Taurids (peaking on Nov 11-12, ZHR = 2). Both Taurid Showers have low hourly rates of meteors, but these Showers persist into early December. And the Taurids are known for featuring bright fireball meteors. The Northern and Southern Taurid Showers have separate radiants in Constellation Taurus (shown on all-sky charts, see above), which rise as evening twilight fades. Taurid meteors can appear all night long during November. Taurid meteors are interpreted as icy and rocky debris from periodic Comet 2P/Encke and related objects (?).

The Leonid Meteor Shower is predicted to reach maximum on the morning of November 17, and from western Colorado the best viewing is likely to be from 1 AM to 6 AM MST, after the radiant gains altitude in the east. You may see a maximum of 15 Leonid meteors/hour. The Leonids are famous for spectacular meteor storms in 1833 and 1966 and strong meteor showers in 1999, 2001, and 2002. No Leonid meteor storms have been predicted for this November. But there is little to no interference from moonlight on November 17, the morning of the predicted maximum, so it's worth a look! The Leonid meteors are icy and rocky debris from periodic Comet 55P/Tempel-Tuttle.

The Alpha Monocerotids is typically a minor meteor shower that is predicted to peak on the morning of November 21. That's near new Moon, so there's no interference from moonlight. The typical ZHR is less than 5 for this Shower, but strong outbursts of Monocerotid meteors occurred in 1925 (ZHR about 1,000), 1935 (ZHR about 1000), 1995 (ZHR about 420) and 2019 (ZHR about 120). No outburst is predicted for this November. But, if the sky is clear, it might be worth looking for these meteors between midnight and 6 AM MST on November 21, because the Moon is new – and, you never know what you might see! The parent body of the Alpha Monocerotids is not yet known.

SPOT AN INTERSTELLAR COMET BEFORE DAWN: 3I/ATLAS! With a telescope, we may be able to spot and/or image in the predawn sky a visitor from another planetary system, Comet 3I/ATLAS (formerly designated as C/2025 N1). 3I/ATLAS was discovered by the Asteroid Terrestrial-impact Last Alert System (ATLAS) that is operated by the University of Hawaii. It's only the third interstellar object to be discovered traversing our Solar System, hence the designation, "3I." After reappearing from behind the Sun in early November, 3I/ATLAS is moving westward against the stars of Virgo. At magnitude +9 to +11 as of November 10, it's brighter than predicted and may be an interesting target for "backyard" telescopes. On the mornings of November 18 and 19, 3I/ATLAS passes 1.5 degrees south of the 3rd magnitude double star, Porrima (aka Gamma Virginis). On November 22, 3I/ALTAS passes < 0.25 degree from the 13th magnitude galaxy, NGC 4454. And on November 26, 3I/ATLAS is about half a degree south of the 4th magnitude star, Zaniah (aka Eta Virginis). Comet 3I/ATLAS passed perihelion (its closest point

to the Sun, 126 million miles) on October 29, and it will be closest to Earth on December 19 at 167 million miles. This interstellar comet is on an unbound, hyperbolic trajectory past the Sun, and it will not be returning to our Solar System. Find updates, photos, finder charts, and ephemerides for 3I/ATLAS here…
https://theskylive.com/c2025n1-info
https://astro.vanbuitenen.nl/comet/3I
http://aerith.net/comet/catalog/0003I/2025N1.html
https://en.wikipedia.org/wiki/3I/ATLAS

ANOTHER COMET IN THE PREDAWN SKY: ATLAS (C/2025 K1). There's yet another Comet ATLAS in our predawn sky, C/2025 K1 (ATLAS), a visitor from the distant Oort Cloud at the outer fringes of our Solar System. This Comet was also discovered by the Asteroid Terrestrial-impact Last Alert System (ATLAS) that is operated by the University of Hawaii. From November 10 to 28, C/2025 K1 (ATLAS) moves northward against the stars of Constellations Leo, Leo Minor and Ursa Major. At between magnitudes +9 to +11 as of November 10, it's likely in range of "backyard" telescopes. C/2025 K1 (ATLAS) was at perihelion (closest to the Sun) on October 8 (at 31 million miles) and will be closest to Earth on November 24 (at 37 million miles). Find updates, photos, finder charts, and ephemerides for C/2025 K1 (ATLAS) here…
https://theskylive.com/c2025k1-info
https://astro.vanbuitenen.nl/comet/2025K1
http://aerith.net/comet/catalog/2025K1/2025K1.html

SATURN – WELL PLACED FOR EVENING VIEWING! As the sky darkens, the Ringed Planet is more than 30 degrees above the southeastern horizon, culminating more than 44 degrees above the southern horizon between 6:30 and 9 PM MST. Saturn sets in the west at about 2:25 AM MST on November 11 and 1:17 AM MST on November 28. During this period, Saturn fades from magnitude +0.82 to +0.90, as its distance from Earth increases from 829 million to 852 million miles. Through telescopes, Saturn's disk appears 18 arc seconds wide, and its rings span 43 arc seconds. During 2025, Saturn's thin rings (150,000 miles wide but only 1000 ft thick!) appear nearly "edge-on" from our perspective on Earth. Saturn's rings are not as striking as they have been in the past few years (and will be a few years from now). When seen nearly edge-on, the rings are dimmer, 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 +7.7, is about 4 degrees east northeast from Saturn. Like Saturn, we can see Neptune best as it culminates more than 45 degrees above the southern horizon between 6:30 and 9 PM MST. You'll need binoculars or a telescope to spot Neptune, which retrogrades (moves westward) slowly against the stars of southwestern Pisces during this period. A telescope may reveal Neptune's 2.3 arc second-wide, blue disk. Neptune is 2.7 billion miles distant during this period. You can use this link to find Neptune:
https://theskylive.com/neptune-info

URANUS. Uranus is opposite the Sun in our sky ("at opposition") on November 21, when the 7th Planet is 1.7 billion miles distant. Uranus rises above the east-northeastern horizon during twilight at about 5:26 PM MST on November 11 and on November 21, at 4:17 PM MST, before the Sun sets. Uranus is slowly retrograding (moving westward) 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 +5.6, you can see the 7th Planet easily with binoculars, and perhaps even with eyes unaided when skies are dark. But you'll need a telescope to resolve Uranus' 3.8 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 9 PM MST and 3 AM MST, when Uranus is more than 45 degrees above the horizon.

JUPITER AND ITS MOONS RISE IN THE EVENING. Bright Jupiter, moving against the stars of Constellation Gemini, rises in the east northeast at about 9:18 PM MST on November 11 and 8:09 PM MST on November 28. "The King of Planets" remains visible into morning twilight. Between November 11 and 28, the Giant Planet brightens from magnitude -2.40 to -2.52, as its distance from Earth decreases from 437 million to 417 million miles, and its apparent diameter increases from 42.0 to 44.0 arc seconds.

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. Shadow transits of all four of Jupiter's Galilean Moons are visible from the Western Slope 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. Transits of shadows 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.

November 11-12, 2025, 10:10 PM to 12:26 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 9 degrees high in the east northeast and end with Jupiter 35 degrees high in the east).

November 12, 12:48 AM to 3:38 AM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter 35 degrees high in the east and ends with Jupiter 69 degrees high in the south southeast).

November 17, 2025, 5:34 AM to 7:52 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 65 degrees high in the southwest and ends with Jupiter 40 degrees high in the west, after the Sun rises at 7:02 AM MST).

November 19, 2025, 12:02 AM to 2:20 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 36 degrees high in the east and ends with Jupiter 61 degrees high in the east southeast).

November 19, 2025, 3:24 AM to 6:14 AM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter 70 degrees high in the south and ends with Jupiter 57 degrees high in the south during nautical twilight).

November 20, 2025, 6:22 PM to 9:20 PM MST, Callisto's shadow crosses Jupiter at high southern latitude on Jupiter (Locally this event begins before "Jupiter rise" at 8:42 PM MST and ends with Jupiter only 6 degrees above the east-northeastern horizon).

November 20, 2025, 6:32 PM to 8:48 PM MST, Io's shadow crosses Jupiter (Locally this event begins before Jupiter rises at 8:42 PM MST and ends with Jupiter only 1 degree above the east-northeastern horizon).

November 24, 2025, 7:04 PM to 10:22 PM MST, Ganymede's shadow crosses Jupiter (Locally this event begins well before "Jupiter rise" at 8:24 PM MST and ends with Jupiter 21 degrees above the eastern horizon

November 26, 2025, 1:56 AM to 4:14 AM MST, Io's shadow crosses Jupiter (Locally this event begins with Jupiter 62 degrees high in the southeast and ends with Jupiter 71 degrees high in south).

November 26, 2025, 6:00 AM to 8:50 AM MST, Europa's shadow crosses Jupiter (Locally this event begins with Jupiter 55 degrees high in the west and ends with Jupiter 22 degrees above the western horizon after sunrise, which occurs at 7:05 AM MST).

November 27, 2025, 8:24 PM to 10:42 PM MST, Io's shadow crosses Jupiter (Locally this event begins with Jupiter only 2 degrees above the east-northeastern horizon and ends with Jupiter 27 degrees high in the east).

VENUS – RISING IN MORNING TWILIGHT. Morning-by-morning, brilliant Venus rapidly descends into brighter morning twilight, as its angular distance from the Sun decreases as it moves southeastward against the stars. Venus rises at about 5:41 AM MST on November 11 during astronomical twilight and at about 6:22 AM MST on November 21 during brighter, nautical twilight. Venus still shines brightly against the morning twilight at magnitude -3.9 during this period, as its distance from Earth increases from 153 million to 156 million miles, and its nearly full phase waxes from 96% to 99% illuminated. Between November 11 and 28, Venus' apparent diameter decreases from 10.4 to 9.9 arc seconds, as seen through telescopes. **Please do your Venus spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

MERCURY JOINS VENUS AS A "MORNING STAR"! After its inferior solar conjunction on November 20, the "Speedster Planet" moves rapidly into our predawn sky, where it has a conjunction with Venus on November 25. With a telescope, you might spot Mercury as early as November 24, when the Innermost Planet appears as a thin crescent (only 7.5% illuminated!), shining faintly at magnitude +2.44 about 2 degrees below and to the left of brilliant Venus. On November 25 between 6:15 and 6:25 AM MST, using binoculars, try to spot Mercury about 1.5 degrees above and left from Venus. On November 25, Mercury's crescent phase, 11% illuminated, brightens to magnitude +1.78. Mercury gets easier to spot by November 28 between 6:20 and 6:30 AM MST, when the Innermost Planet, brightening further to magnitude +0.54, appears 5 to 7 degrees above the east-southeastern horizon during nautical twilight. Between November 24 and 28, Mercury's distance from Earth increases from 66 million to 73 million miles, as its apparent diameter (as seen through telescopes) decreases from 9.5 to 8.6 arc seconds and its crescent phase waxes from 7.5% to 24% illuminated. **Please do your Mercury 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 (the "Northern Crown") sometime soon, at least briefly? Corona Borealis is only about 15 degrees above the west-northwestern horizon as the sky darkens, and it sets just after 6:45 PM MST. You can also spot Corona Borealis before dawn, when it rises above the east-northeastern horizon after

about 5:30 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 1 AM (MST) on November 10, T CrB had not yet erupted. Astronomer Jean Schneider of Paris Observatory stated that an eruption is most likely on November 10, 2025 or June 25, 2026. Keep watch for an eruption that could happen very soon! 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 interesting 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!), November 9 and November 10! Also, CMEs have triggered geomagnetic storms that caused auroras. As of 5 AM MDT on November 10, there are several active regions with sunspots on the Earth-facing side of the Sun, including the large active region that has unleased several X-class flares in the past week. We may experience more M- and possibly X-class (extreme) flares and powerful CMEs during the next two weeks. 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 (the SDO site was not being updated during the U. S. government shutdown – use the SOHO site) …
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"). Auroras are triggered by geomagnetic storms that derive from coronal mass ejections (CME) from active regions on the Sun. With continuing high solar activity, more geomagnetic storms may occur, and we may be able to see auroras, like those seen and photographed from the Western Slope earlier this year and last year. 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 seen and photographed auroras from Colorado this year and last year. If we are lucky, we may see auroras from the Western Slope during this period. 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, including a SAR arc and airglow during the BCAS night-sky event in Ridgway on October 18.

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 them. 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 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 (note that this site may have been impacted by federal government shutdown) …
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

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. 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

HAPPY OBSERVING!