

**OBSERVING HIGHLIGHTS for April 1 to 15, 2024, a “dark” Moon period & a total solar eclipse!
Black Canyon Astronomical Society (BCAS), western Colorado, USA**

SUMMARY. Consider traveling to the path of totality for the April 8 solar eclipse, the last total solar eclipse visible from the contiguous United States for twenty years! A total solar eclipse has been called “a vision magnificent beyond description” and “the most sublime and awe-inspiring sight that nature affords.” The April 8 eclipse will be total across a narrow band that includes parts of Mexico, Texas, Oklahoma, Arkansas, several mid-western states, Ohio, Pennsylvania, New York, parts of New England, and southeastern Canada. Across western Colorado the eclipse will be partial. From Montrose the eclipse will start at 11:23 AM MDT and end at 1:48 PM MDT, reaching maximum at 12:34 PM MDT, when 69% of the Sun’s diameter will be covered by the Moon. If you are staying locally, join BCAS President, Bryan Cashion on April 8 at Centennial Plaza in Montrose, where you can view the partial eclipse through safe, computerized telescopes and see the total eclipse via livestreams from the path of totality. Please remember to use safe solar filters or image projection while viewing partial phases of the April 8 eclipse.

This dark Moon period is our last good chance to view many of winter’s bright stars, before they are lost in evening twilight. Keep watching Constellation Corona Borealis (the Northern Crown) for a bright outburst of recurrent nova, T Coronae Borealis, expected between now and September 2024. And, using binoculars, you may be able to spot Comet 12P/Pons-Brooks low in the west during and just after late evening twilight.

The Moon is at last quarter on the night of April 1-2. On mornings from April 3 to 7, the crescent Moon wanes. On the morning of April 6, the crescent Moon rises about 3 degrees below Saturn and 5 degrees below and left from Mars (you will need an unobstructed eastern horizon and binoculars to see this). On the morning of April 7 at about 6:25 AM MDT, use binoculars to spot a very thin crescent Moon in bright twilight just 2 degrees to the right of Venus. The Moon is new on April 8, when it eclipses the Sun for most of North and Central America. On evenings from April 9 to 14, we can watch a crescent Moon wax. On the evening of April 10, the crescent Moon is about 5 degrees above bright Jupiter. The Moon reaches first quarter on April 15. Enjoy seeing earthshine on the dark part of the crescent Moon, especially on mornings from April 4 to 7 and evening from April 9 to 13 (binoculars will enhance your view).

You may be able to spot Mercury low in western, evening twilight around April 1, but thereafter the Innermost Planet becomes lost in the Sun’s glare, as it moves towards solar conjunction on April 11. As the sky darkens, Jupiter shines brightly about 15 degrees above the western horizon and remains visible until it sets more than 1 hour and 45 minutes after the Sun. With a telescope, you can watch shadows of 3 of Jupiter’s large moons cross the Giant Planet, including an April 1 “prime time” transit of the shadow of Ganymede, the largest Moon in the solar system. This period will be our last chance to see Venus as a “morning star” during 2024. Even so, you’ll need an unobstructed eastern horizon and perhaps binoculars to see Venus in bright morning twilight. Using binoculars, try to spot reddish Mars and yellow-white Saturn in morning twilight on April 10, when they will be only 0.7 degrees apart. Please do your planet and crescent Moon spotting before sunrise or after sunset. NEVER chance looking at the Sun directly; serious eye damage can result.

The Sun has been very active recently. Three X-class (extreme) solar flares occurred on February 22, including the most energetic flare of the current solar cycle. Two more X-class flare occurred on March 23 and 28. Moderate and even extreme solar flares are likely during this period. You can monitor solar activity safely in real time on the internet. High solar activity is triggering auroras (aka “northern lights”) and airglow, which have been photographed and seen from Colorado in past months. So, keep watch for more of these phenomena!

From western Colorado, try to spot the bright International Space Station (ISS) during the evenings of March 31, April 1, and April 3. Early risers can look for the almost-as-bright Tiangong (Chinese) Space Station during mornings from April 1 to 11. There is an evening pass of Tiangong on April 15.

WESTERN SLOPE SKIES. Since 2011, BCAS and KVNF Community Radio have been producing [Western Slope Skies](#) (WSS), a biweekly astronomy feature, which airs every two weeks at about 8:10 AM on Fridays and 7:00 PM on Wednesdays. On March 29 and April 3, Art Trevena describes how you can experience the April 8, 2024 solar eclipse, which will be total along a narrow path covering parts of Mexico, the U. S. (Texas to Maine) and southeastern Canada. Then on April 12 and 17, Gina Loewen tells us why stars scintillate, or twinkle, sometimes producing dramatic, rapidly changing colors.

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>

TOTAL SOLAR ECLIPSE – APRIL 8! For April 8, consider traveling to the path of totality for the last total solar eclipse visible from the 48 Contiguous States until year 2044. In the words of General [Albert J. Myer](#), co-founder of the National Weather Service, a total eclipse is “a vision magnificent beyond description.” And astronomer [Isabel Martin Lewis](#) called a total solar eclipse “... the most sublime and awe-inspiring sight that nature affords.” The entire contiguous U. S. will experience at least a partial eclipse, lasting over 2 hours in many places, as the Moon appears to gradually move in front of the Sun. This solar eclipse will be total for up to 4 minutes and 28 seconds over a narrow path, nowhere wider than 125 miles, that includes parts of Mexico, Texas, Oklahoma, Arkansas, several midwestern states, Ohio, Pennsylvania, New York, New England, and southeastern Canada. If you stay in western Colorado, you will see a partial solar eclipse lasting over two hours. For example, at Montrose the partial eclipse begins at 11:23 AM MDT and ends at 1:48 PM MDT, reaching maximum at 12:34 PM MDT, when 69% of the Sun’s diameter and 62% of its area will be covered by the Moon. If you are staying locally on April 8, join BCAS President, Bryan Cashion, at Centennial Plaza in Montrose to view the partial eclipse with “eclipse glasses” and safe, computerized solar telescopes. Bryan also plans to show livestream views of the total eclipse. Wherever you are on April 8, here’s wishing you an awesome eclipse experience under clear skies! **Please use safe solar filters or image projection, when observing the partial phases of this solar eclipse. For info on safe solar filters, eclipse maps, and other eclipse info, see these links...**

<http://mreclipse.com/Special/filters.html>

<https://www.greatamericaneclipse.com/april-8-2024>

<https://eclipsophile.com/2024tse/>

<https://solarsystem.nasa.gov/eclipses/future-eclipses/eclipse-2024/>

http://xjubier.free.fr/en/site_pages/solar_eclipses/TSE_2024_GoogleMapFull.htm

If you can’t travel to the path of totality, you can access livestreams of the total eclipse at this link, provided by the American Astronomical Society:

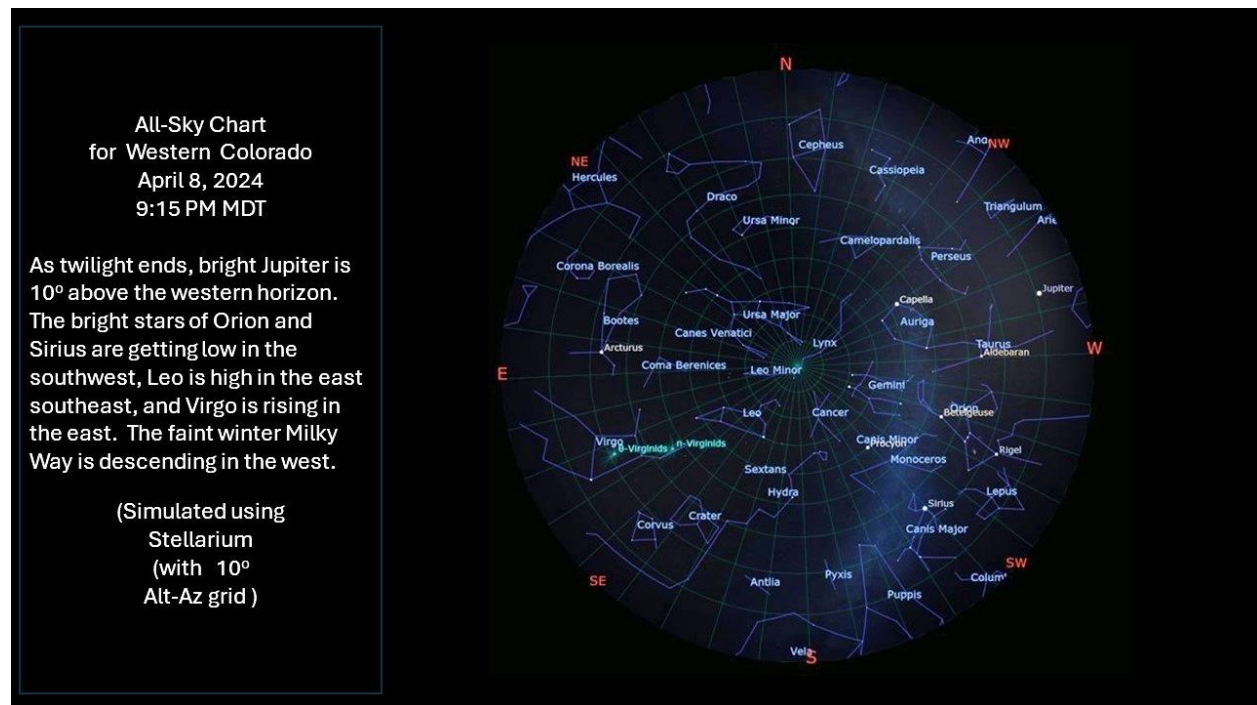
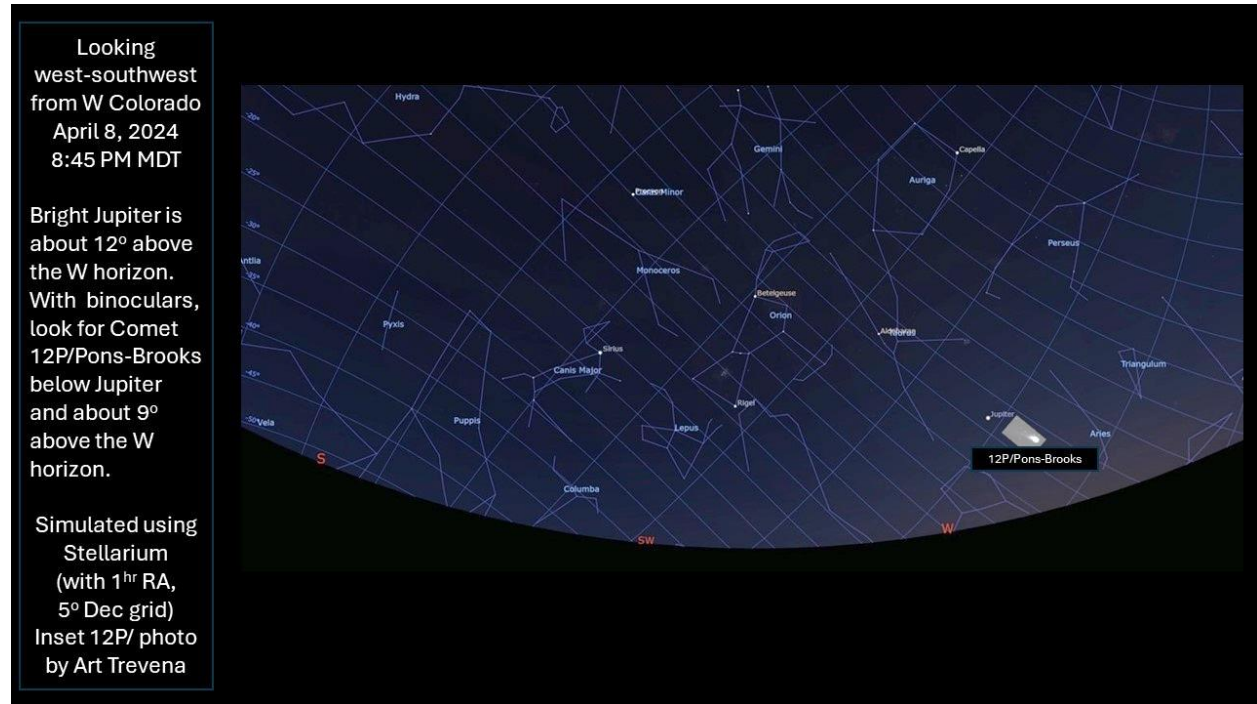
<https://eclipse.aas.org/resources/livestreams>



THE MOON. The Moon reaches **last quarter on the night of April 1-2** (exactly at 9:15 PM MDT on April 1). On mornings from April 3 to 7, the crescent Moon wanes. On the morning of April 6 between about 5:52 and 6:10 AM MDT (with the Sun 11 to 9 degrees below the horizon), watch the 7%-illuminated, crescent Moon rising about 3 degrees below +1.06-magnitude Saturn and 5 degrees below and left from +1.09-magnitude Mars (you'll need an unobstructed eastern horizon and binoculars will help). On the morning of April 7 at about 6:25 AM MDT (with the Sun about 5 degrees below the horizon, use binoculars to spot a skinny, 2%-illuminated lunar crescent just 2 degrees to the right of -3.9 magnitude Venus. **The Moon is new on April 8** (exactly new at 12:21 PM MDT), when it partially eclipses the Sun over much of North America and totally eclipses the Sun for parts of Mexico, the U.S. (Texas to Maine), and Canada (see item above). On evenings from April 9 to 14, we can watch a crescent Moon wax. The Moon reaches **first quarter on April 15** (at exactly 1:13 PM MDT). Enjoy seeing earthshine on the dark part of the crescent Moon, especially on mornings from April 4 to 7 and evenings from April 9 to 13 (binoculars will enhance your view). On the evening of April 10, the 7%-illuminated, crescent Moon is about 5 degrees above bright Jupiter. NASA has published a [stunning visualization of lunar phases for year 2024](#). **Please do your crescent Moon spotting before sunrise and after sunset. NEVER chance looking at the Sun directly; serious eye damage can result.**

LAST CALL FOR THE BRIGHT STARS OF WINTER! This dark Moon period will be our last good chance to enjoy many of the bright stars of winter, before they disappear into evening twilight. As the sky darkens, Betelgeuse and Rigel in Orion, and Sirius, the night sky's brightest star, are getting low in the southwest, while Leo, Virgo, Boötes, Corona Borealis, and other spring constellations are rising higher in

the east. Ursa Major, including the Big Dipper asterism, is high in the north northeast. Use various planetarium apps or the charts below to navigate.



AN EVENING COMET! In recent weeks Comet 12P/Pons-Brooks has been brightening. Using binoculars, you may be able to spot this Comet in the western, evening sky. It may be easiest to spot Comet 12P/ in

a dark sky between March 31 and about April 9, before the waxing Moon starts interfering. 12P/ will likely be visible low in the west even in small binoculars from about 1 to 2 hours after sunset, as it moves from Constellation Pisces into Constellation Aries during this period. You may be able to spot the Comet's tail with larger "astronomy binoculars" (having lens diameters 50 mm and wider). To spot 12P/, find a place where the western sky is unobstructed and use the "8:45 PM MDT finder chart" (above), or more detailed finder charts in the links below. If 12P/Pons-Brooks has an outburst and gets unusually bright, there's even a (slight?) chance you may spot it just west of Jupiter during the total phase of the April 8 solar eclipse (if you travel to the path of totality). 12P/Pons-Brooks is a Halley-type comet with a 71-year orbital period. It will be closest to the Sun (at 73 million miles) on April 21 and closest to Earth on June 2 (at 144 million miles). For detailed finder charts and more info, see these links...

[12P/Pons-Brooks | astro.vanbuitenen.nl](https://astro.vanbuitenen.nl)

<https://theskylive.com/12p-info>

<https://www.virtualtelescope.eu/2024/03/06/multiscale-imaging-of-comet-12p-pons-brooks-pictures-and-time-lapse-5-mar-2024/>

JUPITER IN THE EVENING. Not long after sunset, look for Jupiter, shining brightly, about 15 degrees above the western horizon. Between April 1 and 15, the Giant Planet fades slightly (from magnitude -2.06 to -2.03), as its distance from Earth increases from 538 to 549 million miles. Jupiter sets in the west northwest at about 10:26 PM MDT on April 1 and 9:47 PM MDT on April 15. Through telescopes or binoculars, the Giant Planet's apparent equatorial diameter decreases from 34.0 to 33.4 arc seconds during this period. If you travel to the narrow totality path of the April 8 solar eclipse, you can spot Jupiter about 25 degrees east of the Sun during the brief minutes when the eclipse is total. Do not try to spot Jupiter during the eclipse from Colorado, because Jupiter will be too near the Sun, which will be only partially eclipsed and dangerous for unfiltered viewing. Use a telescope or binoculars to spot Jupiter's four bright moons. You can identify them by their changing positions and referring to various planetarium apps or this website:

https://skyandtelescope.org/wp-content/plugins/observing-tools/jupiter_moons/jupiter.html

If you have a telescope, view shadow transits (Jovian solar eclipses!) of Jupiter's moons on the nights listed below. Jupiter is setting early now, and only four of these events are visible from western Colorado during this period. 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 crossing the Giant Planet. There is a "primetime" transit of Ganymede's shadow on the evening of April 1 (see below). Europa's small shadow can be challenging to spot, but Io's shadow is larger than Europa's shadow.

April 1, 2024, 8:34 PM to 10:26 PM MDT. Ganymede's shadow crosses Jupiter at a very high southern latitude on Jupiter. (Locally Jupiter sets near the end of this event at about 10:26 PM MDT).

April 6, 2024, 9:56 PM to 12:08 PM MDT. Io's shadow crosses Jupiter. (Locally, this event begins when Jupiter is very low in the west, and Jupiter sets at about 10:12 PM MDT).

April 11, 2024. 5:42 PM to 8:10 PM MDT. Europa's shadow crosses Jupiter. (Locally, the Sun sets at about 7:47 PM MDT. This event begins in daylight and ends during bright, evening twilight with the Sun only 5 degrees below the horizon).

April 15, 2024, 6:20 PM to 8:30 PM MDT. Io's shadow crosses Jupiter. (Locally, the Sun sets at about 7:51 PM MDT. This event begins in daylight and ends in bright, evening twilight with the Sun only 8 degrees below the horizon).

MERCURY DISAPPEARS INTO BRIGHT EVENING TWILIGHT. On April 1 between 8:30 and 8:35 PM MDT, try to spot Mercury in twilight about 4 to 3 degrees above the west-northwestern horizon (binoculars may help). But shining only at magnitude +1.6, it may be challenging to spot the Innermost Planet. Through telescopes on April 1, Mercury appears as a 14%-illuminated crescent that is 9.6 arc seconds wide. After April 1, the “Speedster Planet” fades rapidly and retrogrades into glaring twilight prior to its April 11 solar conjunction. Mercury is 65 million miles distant on April 1, but only 54 million miles distant when passing solar conjunction on the “nearside” of the Sun on April 11. During the total solar eclipse on April 8, Mercury is about 7 degrees north and east of the Sun. On eclipse day, the Innermost Planet appears as a faint (+4.8-magnitude), 2%-illuminated crescent that will be extremely challenging to spot during totality, even with binoculars. **Please do your Mercury spotting after sunset, preferably on April 1. NEVER chance looking at the Sun directly; serious eye damage can result.**

KEEP WATCHING THE NORTHERN CROWN! Will there soon be a bright “new” star in Constellation Corona Borealis (the “Northern Crown”), at least briefly? T Coronae Borealis (T CrB) is a recurrent nova that may rapidly increase in brightness 1500-fold (to second magnitude) to become the brightest star in Corona Borealis sometime between now and next September. Then it may fade rapidly below naked-eye visibility in about a week. As of 7:30 AM MDT on March 31, T CrB had not yet detonated. For more about T CrB, read the article, “Get Ready for a Nova’s Bright Return”, by astrophysicist Brad Schaefer in the March 2024 issue of Sky & Telescopes Magazine, p. 34-40. 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://en.wikipedia.org/wiki/T_Coronae_Borealis

<https://ui.adsabs.harvard.edu/abs/2023ATel16107....1S/abstract>

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

<https://skyandtelescope.org/observing/whats-up-with-t-crb04202016/>

VENUS – LAST CALL IN MORNING TWILIGHT! Venus is rising not long before the Sun in progressively brighter morning twilight, about 32 minutes before the Sun on April 1 and only about 24 minutes before the Sun on April 15. Venus is moving towards its solar conjunction on June 4, when it will pass directly behind the Sun (a rarity) from our perspective on Earth (based on a simulation with Stellarium). Because Venus’ orbit is inclined 3.5 degrees to Earth’s orbit, Venus usually passes either north or south of the Sun during solar conjunctions. Venus will reappear in our evening sky by late July. If you travel to the narrow path of totality for the April 8 solar eclipse, you can spot Venus about 15 degrees west of the Sun during the brief minutes when the eclipse is total. Do not try to spot Venus during the solar eclipse from Colorado, because Venus will be too near the partially eclipsed Sun, which can damage your eyes without adequate filtration. **Please do your Venus spotting before sunrise (except from the path of totality during the total phase of the April 8 eclipse). NEVER chance looking at the Sun directly; serious eye damage can result.**

MARS AND SATURN IN MORNING TWILIGHT. Mars and Saturn are emerging from morning twilight. The Red Planet rises in the east southeast during nautical twilight on April 1 at about 5:38 AM MDT. By April 15 Mars rises in darker, astronomical twilight at about 5:10 AM MDT. On the morning of April 10 at about 5:45 AM MDT, look for Saturn only 0.7 degrees below Mars (you will need an unobstructed east-southeastern horizon and binoculars may help). This may be our “best first chance” to see Saturn in the morning sky this year. Mars (magnitude +1.16) and Saturn (magnitude +1.07) may appear equally bright. But can you see a color contrast between Mars and Saturn? Most people see Mars as having a reddish or “butterscotch” tint, whereas Saturn is typically perceived as white or yellowish white. On the

morning of April 10, Mars is 191 million miles distant, while Saturn is much more distant from Earth at 976 million miles. Through telescopes, Mars' disk appears tiny, less than 5 arc-seconds wide. Despite its great distance, gas-giant Saturn appears as a larger, 16 arc-second-wide disk with its rings spanning 37 arc seconds. We are now viewing Saturn's rings at a low angle. From Earth during 2024 and 2025, Saturn's rings appear nearly "edge-on." **Please do your Mars and Saturn spotting before sunrise. NEVER chance looking at the Sun directly; serious eye damage can result.**

THE SUN. The Sun has been very active over the past year and a half. There have been M-class (moderate) solar flares each week, and even X-class (extreme) solar flares, as recently as March 23 and March 28. There also have been many coronal mass ejections ("CMEs") of charged particles that have triggered auroras. [Airglow](#) also results from [high solar activity](#), and this phenomenon has been photographed and observed from Colorado. As of March 31, there are only a few small sunspot groups and active regions on the visible face of the Sun, the recently flaring regions having rotated to the far side of the Sun. But highly active regions and large sunspots will likely come into view during this period, as the Sun rotates. M-class (moderate) and even X-class (extreme) solar flares are likely during this period. Some flares may be associated with CMEs. You can monitor sunspots, solar flares, CMEs, and other solar activity safely and in "real time" at the following sites:

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

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

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

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

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

<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"). It can be challenging to spot auroras from Colorado's mid-northern latitudes, but in the past year auroras were photographed and seen from Colorado and even farther south in Arizona! Solar magnetic storms, when directed toward Earth, can cause auroras. With current, high solar activity, chances for auroras are good. You can get predictions and updates for auroras, their intensity, and geographic extent from NOAA's Space Weather Prediction Center:

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

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

Until the end of April, we can watch aurora 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. Other aurora webcams also may be operating. See this review article...

<https://www.space.com/northern-lights-webcams-watch-aurora-online>

EARTH SATELLITE HIGHLIGHTS. The following predictions are for western Colorado, specifically Montrose, in Mountain Daylight Time (MDT). Numerous Earth satellites are visible every clear night. Brighter satellites have smaller magnitude numbers, and the brightest (e.g., the International and Tiangong Space Stations) may have negative magnitudes. These predictions are for selected passes of some bright and/or interesting satellites (as summarized from Heavens-Above.com). Satellite orbits can change. These predictions for satellite passes may be inaccurate by up to several minutes, especially after April 3. For more accurate predictions of these and other satellites, check Heavens-Above.com or other satellite prediction sites for updates on the nights you wish to observe. Be sure to set application(s) for your location and time zone.

Starlink satellite “trains”, when viewed from less than 1 day to about 4 days after launch, can be very eye-catching! Check Heavens-Above.com (or other sites) for updated, local predictions of “trains” of Starlink satellites. Starlink satellites are launched often, [typically once or twice per week](#).

March 31, 2024. International Space Station (ISS). 9:28 to 9:31 PM MDT. W to SW. Disappears into Earth’s shadow near max altitude 18 deg above SW, max magnitude -1.6 (Passing through Aries-near Jupiter, Taurus, Orion-near Rigel, Lepus, and Canis Major). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

April 1, 2024. Tiangong (Chinese Space Station). 5:15 to 5:18 AM MDT. ESE to ENE, Appears from Earth’s shadow at max altitude 68 deg above ESE, max magnitude -2.0 (Passing through Hercules, Cygnus, Vulpecula, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 1, 2024. International Space Station (ISS). 8:40 to 8:43 to 8:45 PM MDT. WNW to SW to SSE. Max altitude 33 deg above SW, disappears into Earth’s shadow 13 deg above SSE, max magnitude -2.3 (Passing through Aries-near Jupiter, Taurus, Orion-near M42, Monoceros, Canis Major, Puppis, and Pyxis). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

April 2, 2024. Tiangong (Chinese Space Station). 5:47 to 5:48 to 5:52 AM MDT. W to N to ENE. Appears from Earth’s shadow 25 deg above W, max altitude 56 deg above N, max magnitude -1.8 (Passing through Coma Berenices, Canes Venatici, Ursa Major-Big Dipper, Draco, Cepheus, Lacerta, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 3, 2024. Tiangong (Chinese Space Station). 6:19 to 6:22 to 6:25 AM MDT. WNW to N to ENE. Appears from Earth’s shadow 7 deg above WNW, max altitude 45 deg above N, max magnitude -1.4 (Passing through Leo, Ursa Major-Big Dipper, Draco, Ursa Minor, Cepheus/Cassiopeia, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 3, 2024. International Space Station (ISS). 8:41 to 8:42 to 8:43 PM MDT. WSW to SW to S. Max altitude 11 deg above SW, max magnitude -0.8 (Passing through Cetus, Eridanus, Lepus, Columba, and Puppis). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

April 4, 2024. Tiangong (Chinese Space Station). 5:18 to 5:22 AM MDT. NW to N to ENE. Appears from Earth’s shadow 43 deg above NW, max altitude 48 deg above N, max magnitude -1.6 (Passing through Draco, Ursa Minor, Cepheus, Lacerta, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 5, 2024. Tiangong (Chinese Space Station). 5:50 to 5:52 to 5:55 AM MDT. WNW to N to E. Appears from Earth’s shadow 15 deg above WNW, max altitude 47 deg above N, max magnitude -1.4 (Passing through Leo, Ursa Major-Big Dipper, Draco, Ursa Minor, Cepheus, Lacerta, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 6, 2024. Tiangong (Chinese Space Station). 4:50 to 4:52 AM MDT. NE to ENE. Appears from Earth’s shadow at max altitude 37 deg above NE, max magnitude -0.8 (Passing through Cepheus, Lacerta, and Pegasus). **Tiangong’s orbit may change frequently. Check for updates.**

April 7, 2024. Tiangong (Chinese Space Station). 5:21 to 5:22 to 5:25 AM MDT. NW to N to E. Appears from Earth's shadow 32 deg above NW, max altitude 54 deg above N, max magnitude -1.6 (Passing through Ursa Major-Big Dipper, Draco, Ursa Minor, Cepheus/Lacerta/Cygnus, and Pegasus). **Tiangong's orbit may change frequently. Check for updates.**

April 8, 2024. Tiangong (Chinese Space Station). 5:53 to 5:55 to 5:58 AM MDT. WNW to SSW to ESE. Appears from Earth's shadow 13 deg above WNW, max altitude 78 deg above SSW, max magnitude -2.3 (Passing through Leo, Coma Berenices, Boötes, Hercules, Sagitta/Aquila, and Aquarius). **Tiangong's orbit may change frequently. Check for updates.**

April 9, 2024. Tiangong (Chinese Space Station). 4:52 to 4:55 AM MDT. ENE to E. Appears from Earth's shadow at max altitude 53 deg above ENE, max magnitude -1.5 (Passing through Cygnus, Pegasus, and Aquarius). **Tiangong's orbit may change frequently. Check for updates.**

April 10, 2024. Tiangong (Chinese Space Station). 5:24 to 5:25 to 5:28 AM MDT. WSW to SSW to SE. Appears from Earth's shadow 41 deg above WSW, max altitude 52 deg above SSW, max magnitude -2.1 (Passing through Boötes, Serpens, Ophiuchus, Aquila/Scutum, and Capricornus). **Tiangong's orbit may change frequently. Check for updates.**

April 11, 2024. Tiangong (Chinese Space Station). 5:56 to 5:57 to 5:59 AM MDT. WSW to SSW to SSE. Appears from Earth's shadow 14 deg above WSW, max altitude 18 deg above SSW, max magnitude -0.5 (Passing through Virgo, Libra, Scorpius, Sagittarius, and Corona Australis). **Tiangong's orbit may change frequently. Check for updates.**

April 15, 2024. Tiangong (Chinese Space Station). 9:21 to 9:22 PM MDT. in SSW. Disappears into Earth's shadow at max altitude 17 degrees above SSW, max magnitude -0.1 (Passing through Canis Major and Puppis). **Tiangong's orbit may change frequently. Check for updates.**

HAPPY OBSERVING!