

**OBSERVING HIGHLIGHTS for May 4 to 20, 2025, a “bright Moon period”**  
**Black Canyon Astronomical Society (BCAS), western Colorado, USA**

**SUMMARY.** In addition to the bright Moon, enjoy spotting Jupiter and Mars in the evening, Venus and Saturn before dawn, and Eta Aquariid meteors on the mornings of May 5 and 6.

The Moon reaches first quarter on May 4. From May 5 to 11, watch the gibbous Moon wax. On May 5 and 6 the gibbous Moon is high in the sky during the early evening hours, so it’s a great time to explore the Moon with binoculars or a telescope! The Moon is full on May 12. From May 13 to 19, the gibbous Moon wanes. The Moon reaches last quarter on May 20.

As twilight fades, bright Jupiter is more than 25 degrees above the western horizon. You can spot four of Jupiter’s large moons with a telescope or even binoculars. As the sky darkens, reddish (or butterscotch-tinted?) Mars is about 45 degrees above the western horizon. From May 4 to 5, Mars passes against the northern part of the famous Beehive Star Cluster (aka M44), a striking sight when viewed through binoculars or wide-field telescopes! Venus is a brilliant “morning star” rising in the east before 4:20 AM. Saturn has also reappeared in the morning sky. The Ringed Planet appears 5 degrees to the right (south) of Venus on May 4, and Saturn appears above Venus thereafter. With a telescope, challenge yourself to spot the shadow of Titan, Saturn’s largest Moon, as it crosses the Ringed Planet before dawn on May 15. Mercury, also in the predawn sky, is immersed in bright morning twilight.

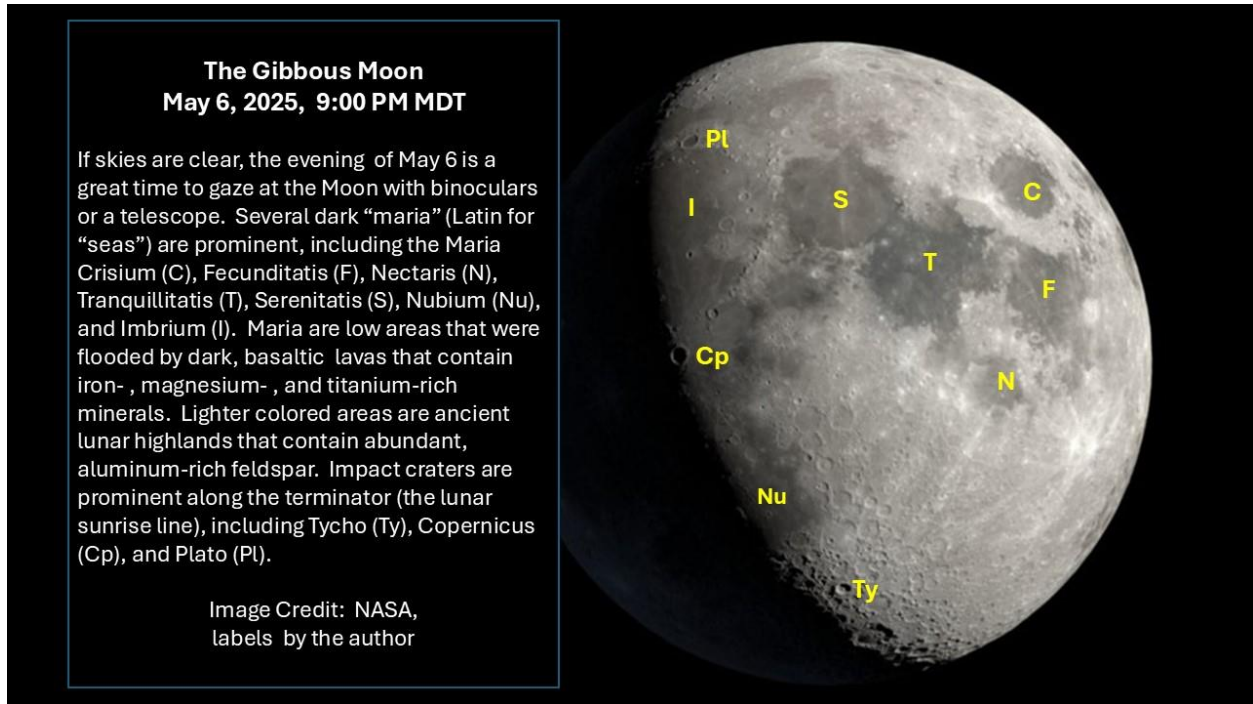
Look for Eta Aquariid meteors on May 5 and 6 between 4:00 and 5:15 AM MDT. Eta Aquariid meteors are icy and rocky debris from Halley’s Comet. So, if you missed this famous Comet in 1986, here’s your chance to see parts of it!

The Sun has been very active during the past year. For the next week or so, by using safe, specialized solar filters (or “eclipse glasses”), you may be able to see a huge sunspot without optical aid! Never look at the Sun directly without a safe, specialized filtration. Looking at the Sun can be very dangerous unless you take adequate precautions. Severe eye damage and even blindness can result. You can monitor solar activity safely in real time on the internet. With continuing high solar activity, geomagnetic storms may occur, and we may be able to spot auroras.

Try to spot the very bright International Space Station (ISS) during predawn passes from May 4 to May 7. Then multiple ISS passes are predicted on nights from May 8 to May 20 (both PM and AM). There are predawn passes for the almost-as-bright Tiangong (Chinese) Space Station from May 9 to 20. The uncontrolled re-entry of Cosmos 482, a failed Venus landing probe launched by the Soviet Union in 1972, is predicted between May 8 and 11, somewhere between latitudes 52 degrees north and 52 degrees south (that includes Colorado – so, you may want to wear a hard hat! – just joking – we hope!).

**THE MOON.** The Moon reaches **first quarter on May 4** (exactly at 6:52 AM MDT). From May 5 to 11, watch the gibbous Moon wax. On May 5 and 6 the gibbous Moon is high in the sky during early evening hours, so this is a great time to explore it with binoculars or a telescope! You can see many craters near the terminator (the lunar “sunrise line”) and several dark maria (Latin for “seas”), which are low areas that were flooded by basaltic lava (not by water). Use the chart below to navigate. **The Moon is full on May 12** (exactly full at 12:56 PM MDT). From May 13 to 19, the gibbous Moon wanes. The Moon reaches **last quarter on May 20** (exactly at 5:59 AM MDT). The Moon, nearing first quarter, is about 2 degrees north of Mars on the evening of May 3. On the night of May 5-6, the 66%-illuminated, gibbous Moon is in Constellation Leo, a few degrees east of the first-magnitude star, Regulus. On the night of May 9-10, watch the 95%-illuminated, waxing gibbous Moon pass about 1 degree south of the first-magnitude star, Spica, in Constellation Virgo. After the Moon rises at about 10 PM MDT on the night of May 13-14, watch the 98% illuminated, waning gibbous Moon pass about 1 degree south of the red

supergiant star, Antares, in Constellation Scorpius. NASA has published a [stunning visualization of lunar phases for year 2025](#). Another fun site is [NASA's daily Moon guide](#).



**ETA AQUARIID METEOR SHOWER – PREDAWN, MAY 5 AND 6.** Eta Aquariid meteors are icy and rocky debris from Halley’s Comet, so if you missed this famous Comet in 1986, here’s your chance to see parts of it! The Eta [Aquariid Meteor Shower](#) peaks on May 5 at 9 PM MDT, but locally the radiant (apparent origin point of the meteors) is below the horizon at that time. From the Western Slope this Shower probably is best viewed on the mornings of May 5 and/or 6 between about 4 AM and 5:15 AM MDT. The Moon has set by then, but the radiant is low in the southeast. This is the best meteor shower for folks in the southern hemisphere, with a typical zenith hourly rate (ZHR) of 50 (varying from 40 to 85), but we likely will see fewer meteors from the Western Slope. The ZHR corresponds to the number of meteors (aka “shooting stars”) an observer would see in one hour, when the radiant (the apparent origin point for the meteors) is at zenith under ideal conditions, i.e., under clear, dark skies with no moonlight. To view meteors, you don’t need fancy equipment, just a dark location, a comfortable reclining chair, warm clothes and/or a sleeping bag. You may see meteors anywhere in the sky. Try looking at the zenith, or in whichever direction has minimal obstructions and ambient light.

**BRIGHT JUPITER AND ITS MOONS IN THE EVENING.** As twilight fades, bright Jupiter is more than 25 degrees above the western horizon. Jupiter is moving against the stars of Taurus. The Giant Planet sets in the west northwest at about 11:07 PM MDT on May 4 and 10:20 PM MDT on May 20. During this period Jupiter fades slightly from magnitude -1.97 to -1.93, but it’s still bright. Jupiter is 548 million miles distant on May 4 and 560 million miles distant on May 20. Through telescopes or binoculars, the Giant Planet’s apparent equatorial diameter decreases from 33.5 to 32.7 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 or this website:

[https://skyandtelescope.org/wp-content/plugins/observing-tools/jupiter\\_moons/jupiter.html](https://skyandtelescope.org/wp-content/plugins/observing-tools/jupiter_moons/jupiter.html)

Use a telescope to view Jupiter's cloud belts and zones and shadow transits (total solar eclipses on Jupiter!) caused by Jupiter's large moons (see details below). 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. Unfortunately, there are no locally observable transits of Ganymede's shadow during this period. Io's shadow is larger than Europa's shadow, but smaller than Ganymede's shadow. There are no transits of Callisto's shadow during this period.

May 4, 7:56 PM to 10:10 PM MDT, Io's shadow crosses Jupiter (Locally, this event begins in daylight with Jupiter 35 degrees above the western horizon and the Sun 1 degree above the horizon and ends after twilight with Jupiter 10 degrees above the west-northwestern horizon).

May 11 to 12, 9:52 PM to 12:06 AM MDT, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter just 9 degrees above the west-northwestern horizon and ends long after Jupiter sets at about 10:46 PM MDT).

May 14, 7:30 PM to 10:10 PM MDT, Europa's shadow crosses Jupiter (Locally, this event begins in daylight and ends after twilight with Jupiter 4 degrees above the west-northwestern horizon).

May 20, 6:14 PM to 8:30 PM MDT, Io's shadow crosses Jupiter (Locally this event begins in daylight with Jupiter 45 degrees above the western horizons and ends in bright twilight with Jupiter 19 degrees above the horizon and the Sun just 2 degrees below the horizon. You may be able to observe this transit with a "Go-To" telescope).

**MARS.** As the sky darkens, reddish (or butterscotch-tinted?) Mars is about 45 degrees above the western horizon. The Red Planet is currently moving eastward against the stars of Constellation Cancer. Mars' rapid eastward motion against the stars will keep the Red Planet in our evening sky through the middle of fall. Mars remains visible until after midnight, setting in the west northwest at about 2:15 AM MDT on May 4 and 1:34 AM MDT on May 20.

The Red Planet fades from magnitude +0.95 on May 4 to magnitude +1.20 on May 20, as its distance from Earth increases from 135 million to 148 million miles. Mars begins this period slightly brighter than the nearby star, Pollux (magnitude +1.15), and ends the period slightly fainter than Pollux. There's an easy way to distinguish Mars from Pollux: Pollux is likely to twinkle, whereas Mars typically does not twinkle. From May 4 to 5, Mars passes against the northern part of the famous Beehive Star Cluster (aka M44), a striking sight in binoculars! Through telescopes Mars' 90%-illuminated, gibbous disk decreases from 6.4 to 5.9 arc seconds in diameter during this period. Due to its small apparent size, it's getting extremely challenging to spot features on the Red Planet. Find more info on observing Mars here: [https://www.alpo-astronomy.org/jbeish/2025\\_MARS.htm](https://www.alpo-astronomy.org/jbeish/2025_MARS.htm)

**VENUS – A BRILLIANT "MORNING STAR"!** Brilliant Venus is now rising before morning twilight at about 4:21 AM MDT on May 4 and 3:56 AM MDT on May 20. During this period, Venus fades slightly from magnitude -4.71 by May 4 to magnitude -4.54 on May 20, as its distance from Earth increases from 44.9 million to 56.3 million miles. As seen through telescopes, Venus' crescent phase waxes from 32% to 43% illuminated, as its apparent diameter shrinks from 34.6 to 27.5 arc seconds as our Sister Planet continues to speed ahead of Earth in its faster orbit. On May 4, Venus is within 5 degrees left (north) of fainter Saturn. The separation of Venus and Saturn increases through this period, and our Sister Planet appears about 15 degrees below and left of Saturn by May 20. On May 3 and 4, Venus appears about 2 degrees above and left of 8<sup>th</sup> magnitude Neptune. **Please do your Venus spotting before sunrise.**

**NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

**MERCURY HIDES IN PREDAWN TWILIGHT.** On May 4 at about 5:40 AM MDT (with the Sun only 6 degrees below the horizon), you may be able to spot Mercury with binoculars, just 3 degrees above an unobstructed eastern horizon during bright twilight. Mercury shines at the relatively bright magnitude of -0.04 on May 4, but the Innermost Planet is immersed in bright twilight. Through telescopes on May 4, Mercury's 65%-illuminated, gibbous disk appears 6.4 arc seconds wide. After May 4, Mercury continues to brighten, attaining magnitude -1.19 by May 20, as its gibbous phase waxes. But Mercury becomes immersed in brighter twilight day-by-day, and spotting it becomes very challenging. Mercury is heading toward its [superior solar conjunction](#) on May 29. **Please do your Mercury spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

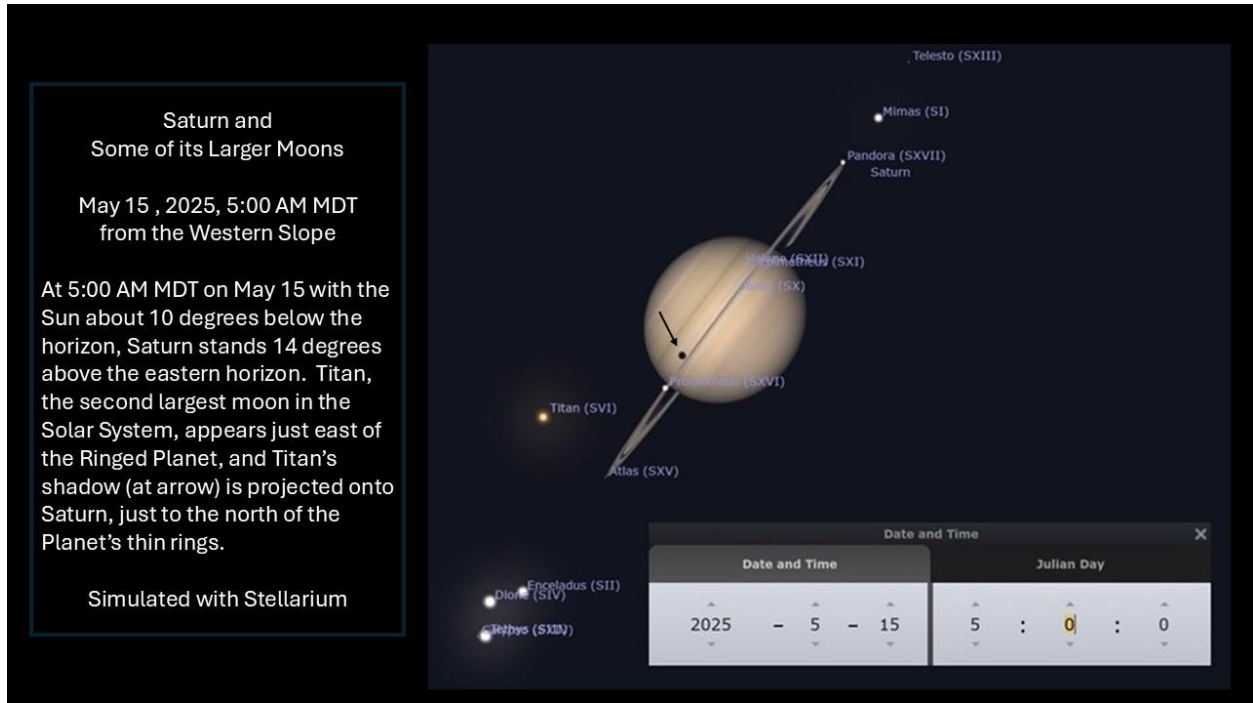
**SATURN BEFORE DAWN.** Saturn has reappeared in the predawn sky, rising at about 4:23 AM MDT on May 4 and 3:24 AM MDT on May 20. On May 4 Saturn rises 5 degrees to the right (south) of brilliant Venus – a nice sight in binoculars. After May 5, Saturn rises earlier than Venus, and its apparent separation from Venus extends to about 15 degrees by May 20. Saturn brightens slightly, from magnitude +1.17 on May 4 to magnitude +1.12 on May 20, as its distance from Earth decreases from 954 million to 934 million miles. Through telescopes Saturn's disk appears 16 arc seconds wide, and its rings span 38 arc seconds. During 2025 Saturn's thin rings (150,000 miles wide but only 1000 ft thick!) are 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 and/or logging onto this site: <https://skyandtelescope.org/observing/interactive-sky-watching-tools/saturns-moons-javascript-utility/> For more info on the appearance of Saturn's rings in 2025 and phenomena associated with Saturn's moons, see this article... <https://skyandtelescope.org/astronomy-news/observing-news/see-mutual-events-close-approaches-of-saturns-moons/>

**Please do your Saturn spotting before sunrise. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

**TITAN'S SHADOW MOVES ACROSS SATURN – MAY 15 AM!** Use a telescope to watch Titan's shadow cross the Ringed Planet on the morning of May 15! Titan is Saturn's largest moon, and the second largest moon in the Solar System. Transits of Titan's shadow across Saturn occur in groups spaced about 15 years apart, so we'll have to wait a long time to observe the next series of these events! The May 15 transit begins at 3:49 AM MDT, shortly after Saturn rises on the Western Slope at about 3:43 AM MDT. Locally, you might see Titan's shadow best between about 4:40 AM and 5:00 AM MDT, when Saturn rises more than 10 degrees above the eastern horizon and before bright twilight starts to interfere. On May 15, Titan's shadow is cast just north of Saturn's thin ring system (see chart below).

While the shadows of Jupiter's large moons transit Jupiter every several days, the transits of Titan's shadow across Saturn are relatively rare. These occur in groups during "transit seasons" around Saturn's equinoxes every 15 years. The current "transit season" began in November 2024, but transits from November 4 to April 13 were not visible from Colorado. That changed on April 29, when the first of 11 shadow transits was visible from the Western Slope. Titan's orbital period of Saturn is just short of 16 Earth days, so transits are now occurring every 16 days. Locally, Saturn will appear low in the eastern,

predawn sky on May 15, and this transit will end in daylight, long after sunrise. Local circumstances for viewing Titan's shadow transits improve through the late spring and summer (see table, below), because Saturn will be rising earlier. Approximate times for Saturn's rise and sunrise on the Western Slope are shown in the table. Titan's shadow is large. But Saturn is on average about twice the distance of Jupiter. So, the size of Titan's shadow appears roughly the same size as the shadow of Jupiter's moon, Europa, which is smaller than Titan.



### Transits of Titan's shadow across Saturn

Date UTC	Date MDT	start MDT	middle MDT	end MDT	Saturn rises MDT	Sunrise MDT
4/29/2025	4/29/2025	4:35 AM	7:45 AM	10:34 AM	4:42 AM	6:14 AM
5/15/2025	5/15/2025	3:49 AM	6:59 AM	9:44 AM	3:43 AM	5:57 AM
5/31/2025	5/31/2025	3:05 AM	6:12 AM	8:53 AM	2:43 AM	5:46 AM
6/16/2025	6/16/2025	2:21 AM	5:24 AM	8:00 AM	1:43 AM	5:44 AM
7/2/2025	7/2/2025	1:40 AM	4:35 AM	7:03 AM	12:42 AM	5:49 AM
7/18/2025	7/18/2025	1:00 AM	3:44 AM	6:05 AM	17Jul, 11:39 PM	6:03 AM
8/3/2025	8/3/2025	12:25 AM	2:52 AM	5:04 AM	2Aug, 10:36 PM	6:13 AM
8/19/2025	8/18-19/2025	11:52 PM	2:01 AM	4:00 AM	18Aug, 8:26 PM	NA
9/4/2025	9/3-4/2025	11:25 PM	1:09 AM	2:50 AM	3Sep, 8:26 PM	NA
9/20/2025	9/19-20/2025	11:09 PM	12:20 AM	1:34 AM	19Sep, 7:21 PM	NA
10/6/2025	10/5/2025		11:32 PM		NA	NA

transit times from Sky & Telescope (converted to MDT by author)  
times for local Saturn rise and sunrise from Stellarium

**DON'T GIVE UP - KEEP WATCHING THE NORTHERN CROWN!** Better late than never? Will there soon be a bright "new" star in Constellation [Corona Borealis](#) ("The Northern Crown"), at least briefly? During this period, Corona Borealis rises in the east northeast before the end of evening twilight and remains

visible through the rest of the night. 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 2<sup>nd</sup> brightest star) in Corona Borealis between now and sometime in 2025 or 2026. Then this “new star” may fade rapidly below naked-eye visibility in about a week. As of 5 AM MDT on May 3, T CrB had not yet erupted. There was a prediction that it might erupt around March 27. That did not happen. Astronomer [Jean Schneider of Paris Observatory states that eruptions are most likely every 228 days](#), a period corresponding with the orbital period of T CrB’s red giant and white dwarf components. Schneider suggests that eruptions are now most likely around November 10, 2025 or June 25, 2026. 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://blogs.nasa.gov/Watch_the_Skies/2024/02/27/view-nova-explosion-new-star-in-northern-crown/)

<https://skyandtelescope.org/astronomy-news/is-the-blaze-star-about-to-blow-you-may-be-the-first-to-know/>

[https://en.wikipedia.org/wiki/T\\_Coronae\\_Borealis](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://www.aanda.org/articles/aa/full_html/2023/12/aa48372-23/aa48372-23.html)

**THE SUN.** The Sun has been very interesting over the past year, when solar active regions have unleashed numerous flares and coronal mass ejections (CMEs) of charged particles. There have been M-class (moderate) solar flares each week for the past year, and there have been many X-class (extreme) solar flares, including X-class flares on January 3 and 4, February 23, and on March 28. There also have been CMEs that have triggered geomagnetic storms that caused auroras. We may experience more M- and possibly X-class flares and powerful CMEs during the current period. [Airglow](#) and [SAR arcs](#) also result from high solar activity, and these phenomena have been photographed and/or observed from Colorado. As of May 3, there is a giant sunspot on the Earth-facing side of the Sun (see image below). [Using safe, specialized solar filters \(or “eclipse glasses”\)](#), some of us observed this sunspot with eyes unaided on May 2 and 3! This huge sunspot may be visible for another week or so. Be sure to use safe, specialized solar filters, if you attempt to view this sunspot. The safest way to monitor sunspots, solar flares, CMEs, and other solar activity safely and in “real time” is by using the internet. Check out the following sites...

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

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

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

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

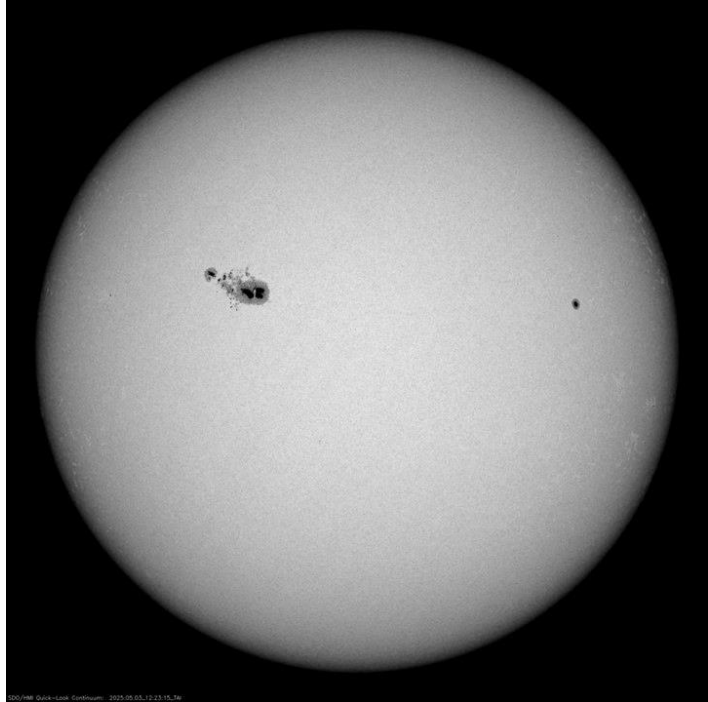
<https://sohowww.nascom.nasa.gov/data/realtime-images.html>

<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.



The Sun  
May 3, 2025  
6:23 AM MDT  
(12:23 UTC)  
HMI Intensitygram  
Visible Light  
around 617.3 nm  
(SDO/NASA)



**AURORAS (aka “polar lights” or “northern lights”).** It can be challenging to spot auroras from Colorado’s mid-northern latitudes. But on the nights of May 10-11 and October 10-11 in 2024, many people were able to see and/or photograph some amazing auroras from Colorado! Auroras were also observed on April 16, 2025 from parts of the U. S. and Europe. During these events, charged particles from coronal mass ejections (CMEs) on the Sun reached Earth. These particles were captured by Earth’s magnetic field, energizing the ionosphere, thereby triggering geomagnetic storms and widespread auroras. With continuing high solar activity, geomagnetic storms may occur, and we may be able to spot more auroral displays. 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/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, during late spring and early summer (in respective hemispheres), it’s not possible to see auroras from latitudes above 60 degrees, because it never gets dark there!

**EARTH SATELLITE HIGHLIGHTS.** The following predictions are for western Colorado, specifically Montrose. Numerous Earth satellites are visible every clear night. During May through July, space above Earth’s northern reaches is awash in sunlight, and it’s possible to see satellites in reflected sunlight all night long, especially in the northern sky. Brighter satellites have smaller magnitude numbers, and the brightest (e.g., the International and Chinese 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 change and these predictions may be inaccurate. This is especially true for the International Space Station (ISS) and the Tiangong Space Station, because they undergo frequent orbital changes. We no longer show satellite predictions more than 5 days beyond the distribution date of the current “BCAS Observing Highlights” edition. For accurate predictions of the ISS, Tiangong, 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.

**May 4, 2025. International Space Station (ISS). 4:23 to 4:24 to 4:25 AM MDT.** N to NNE to NE. Max altitude 11 deg above NNE, max magnitude -0.5 (Passing through Ursa Major, Camelopardalis, Perseus, and Andromeda). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 5, 2025. International Space Station (ISS). 5:11 to 5:14 to 5:17 AM MDT.** NNW to NNE to E. Max altitude 25 deg above NNE, max magnitude -1.4 (Passing through Ursa Major, Camelopardalis, Cassiopeia, and Andromeda). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 6, 2025. International Space Station (ISS). 4:23 to 4:26 to 4:28 AM MDT.** NNW to NNE to ENE. Max altitude 18 deg above NNE. Max magnitude -0.9 (Passing through Ursa Major, Camelopardalis, Cassiopeia/Perseus, Andromeda, and Pegasus). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 7, 2025. International Space Station (ISS). 3:36 to 3:38 to 3:40 AM MDT. 1<sup>st</sup> AM ISS pass of May 7.** NNW to NNE to NE. Max altitude 14 deg above NNE. Max magnitude -0.5 (Passing through Lynx, Camelopardalis, Cassiopeia/Perseus, Andromeda, and Pegasus). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 7, 2025. International Space Station (ISS). 5:12 to 5:15 to 5:18 AM MDT. 2<sup>nd</sup> AM ISS pass of May 7.** NW to NE to ESE. Max altitude 65 deg above NE. Max magnitude -3.3 (Passing through Ursa Major-Big Dipper, Draco, Ursa Minor, Draco again, Cepheus/Cygnus, Pegasus, and Aquarius). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 8, 2025. International Space Station (ISS). 2:48 to 2:50 to 2:51 AM MDT. 1<sup>st</sup> AM ISS pass of May 8.** NNW to N to NNE. Appears from Earth's shadow 7 deg above NNW, max altitude 11 deg above NNE, max magnitude -0.3 (Passing through, Camelopardalis, Cassiopeia, Andromeda, and Pegasus). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 8, 2025. International Space Station (ISS). 4:24 to 4:27 to 4:30 AM MDT. 2<sup>nd</sup> AM ISS pass of May 8.** NW to NNE to ESE. Max altitude 38 deg above NNE, max magnitude -2.2 (Passing through Ursa Major, Camelopardalis/Ursa Minor, Cassiopeia/Cepheus, Lacerta, Pegasus, and Pisces). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 8, 2025. International Space Station (ISS). 9:06 to 9:09 to 9:12 PM MDT. 1<sup>st</sup> PM ISS pass of May 8.** S to SE to ENE. Max altitude 26 deg above SE, disappears into Earth's shadow 5 deg above ENE, max magnitude -2.8 (Passing through Antlia, Hydra, Corvis, Virgo/Libra, Serpens, and Hercules). **Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**May 8, 2025. International Space Station (ISS). 10:43 to 10:46 PM MDT. 2<sup>nd</sup> PM ISS pass of May 8.** W to NNW. Max altitude 32 deg above NNW, disappears into Earth's shadow near max altitude 31 deg above NNW, max magnitude -2.0 (Passing through Canis Minor, Gemini, and Camelopardalis).



**Predictions for the ISS are subject to change due to orbital adjustments. Check for updated predictions.**

**Additional passes of the very bright International Space Station (ISS) are predicted through much of the night from May 9 to 20. There are predawn passes for the almost-as-bright Tiangong (Chinese) Space Station from May 9 to 20. These predictions are subject to change. For updates on times, check heavens-above (or other prediction websites) shortly before you want to observe. Be sure to enter your location and time zone info when using prediction websites.**

**Between May 8 to May 11, 2025. Monitor the Uncontrolled Re-Entry of Cosmos 482 (launched on March 31, 1972 by the Soviet Union).** The landing module of this failed Venus probe has been stranded in Earth orbit, and its orbit is decaying rapidly. Cosmos 482 is predicted to re-enter Earth's atmosphere between May 8 and 11, somewhere between latitude 52 degrees north and 52 degrees south (that includes Colorado!). Cosmos 482 was designed to survive descent through Venus' thick atmosphere, so most of its 1,300 pounds will probably survive re-entry! You may want to wear a hard hat (just kidding – we hope)! Starting around May 7, check this site for prediction of the re-entry time and location:

<https://aerospace.org/reentries/6073>

Predictions for visible passes and ground tracks for Cosmos 482 can be found at

<https://heavens-above.com/>

**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>

**WESTERN SLOPE SKIES.** Since 2011, KVNF Community Radio has aired [Western Slope Skies](#) (WSS), a biweekly astronomy feature every two weeks on Friday mornings and on the following Wednesday evenings. On May 9 and 14, Art Trevena presents on “Double and Multiple Stars.”

**HAPPY OBSERVING!**