BCAS OBSERVING HIGHLIGHTS for February 8 to 24, 2026, 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:

February 8, about 6:15 to 6:25 PM: Spot Mercury 5° to 3° above west-southwestern horizon
February 8 to 19, 7:30 PM to midnight: Enjoy our winter stars under a dark, moonless sky
February 10, 7:00 PM: BCAS meeting: "Touring the Universe with an AI-powered SmartTelescope"
February 11, 4 AM to 6 AM: Crescent Moon near bright, reddish star, Antares
February 13, 10:00 AM: Western Slope Skies on KVNF radio
February 14 to 24, 1:30 AM to 5:15 AM: Enjoy our spring stars under a dark, moonless sky
February 15, around 6:45 PM: Neptune less than 1° north of Saturn
February 18, 6:00 PM: Western Slope Skies on KVNF radio
February 18, 6:25 PM to 7:10 PM: Crescent Moon less than 1° above Mercury (use binoculars!)
February 18, 6:54 PM to 10:22 PM: "Primetime" transit of Ganymede's shadow across Jupiter
February 19, 6:30 PM to 8 PM: Crescent Moon 5° north of Saturn
February 24, 6:27 PM to 6:45 PM: Spot Venus in west 5° below and to left of Mercury

SUMMARY. Clear, "dark Moon" evenings from February 8 to 19 are great times to enjoy the bright stars of winter and the winter Milky Way. Blue-white Rigel and reddish Betelgeuse in Constellation Orion are high in the south, yellow-white Capella in Auriga is nearly overhead, and Sirius, the night sky's brightest star is rising higher in the southeast. And don't overlook Aldebaran in Taurus, Procyon in Canis Minor, Gemini's "twin stars", Pollux and Castor, and Regulus in Leo, rising in the east.

The Moon reaches last quarter on February 9, and from February 10 to 16, the crescent Moon wanes in the morning sky. The Moon is new on February 17, when it eclipses the Sun, as seen from parts of Earth's southern hemisphere. Between February 18 and 23, watch the crescent Moon wax in the evening sky. The Moon reaches first quarter on February 24.

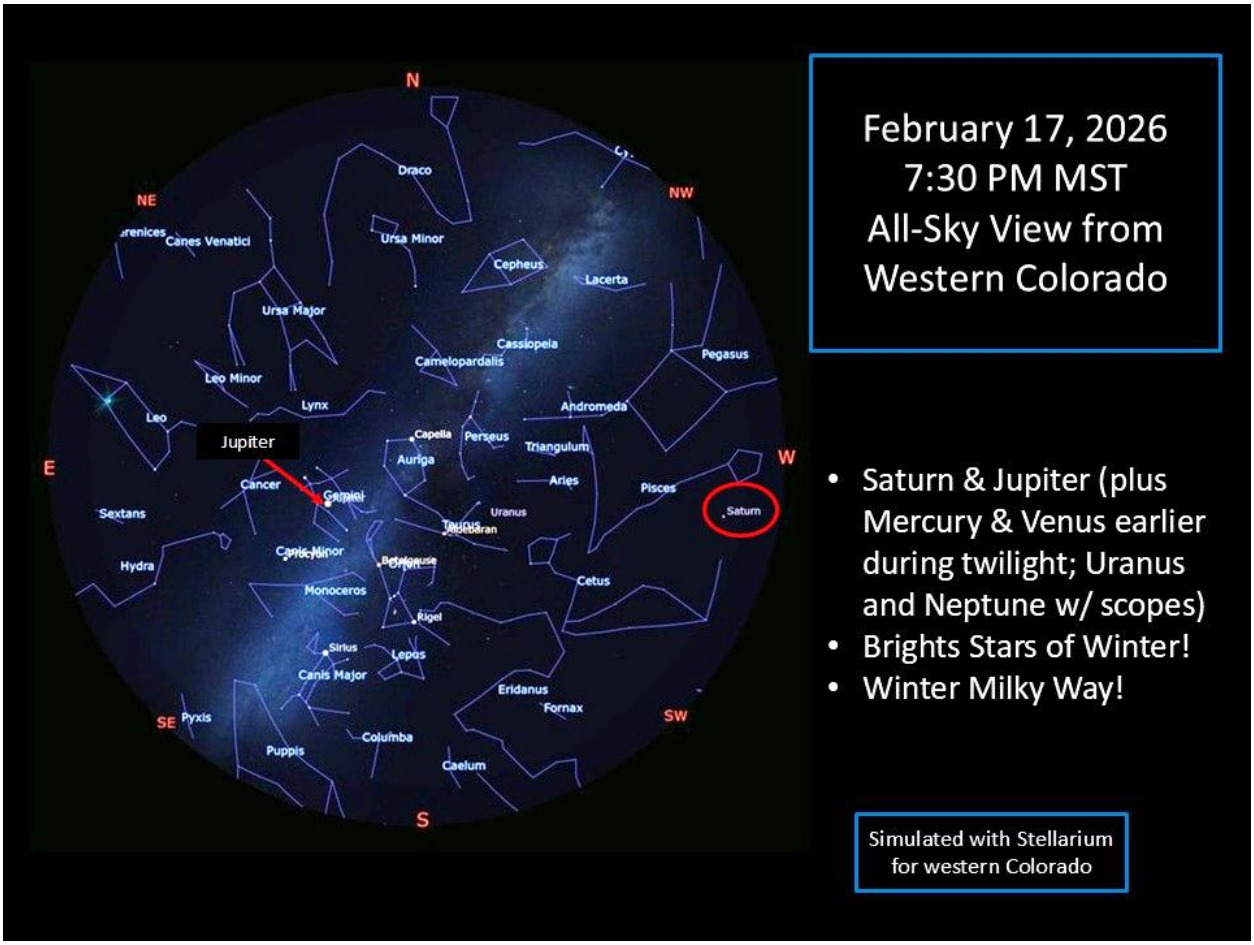
During February Mercury makes its second-best (or perhaps best?) evening appearance of 2026, and Venus reappears in our evening sky. You may be able to spot Venus low in the west southwest by February 17 at 6:20 PM MST, although it will get easier by February 24, when "Our Sister Planet" appears below and to the left of Mercury between 6:27 and 6:45 PM MST. Saturn is less than 25 degrees above the west-southwestern horizon as the sky darkens. On February 15 at about 6:45 PM MST, use a telescope to spot Neptune, less than 1 degree north of the Ringed Planet. Bright Jupiter and its large moons are well placed for viewing, culminating more than 70 degrees above the southern horizon around 9:30 PM MST. There's a "primetime" transit of the shadow of Ganymede, the largest moon in the Solar System, across the face of Jupiter on the evening of February 18 from 6:54 to 10:22 PM MST (you'll need a telescope to see this). Uranus can be spotted with telescopes or binoculars, and perhaps even with eyes unaided, as it moves slowly though Constellation Taurus, about 5 degrees south of the Pleiades Star Cluster.

Solar activity remains high with many X-class (extreme) solar flares having occurred from February 1 to 4. There's a possibility that coronal mass ejections from the Sun could trigger auroras that are again visible from the Western Slope.

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 THE BRIGHT WINTER STARS UNDER A DARK SKY! Clear, "Dark Moon" evenings from February 8 to 19 are great times to enjoy the bright stars of winter and the winter Milky Way, which extends from the northwest across the zenith to the southeast. Use a planetarium app or the chart below to help navigate. Blue-white Rigel and reddish Betelgeuse in Constellation Orion are high in the south, yellow-white Capella in Auriga is nearly overhead, and Sirius, the night sky's brightest star is rising higher in the southeast. And don't overlook Aldebaran in Taurus, Procyon in Canis Minor, Gemini's "twin stars", Pollux and Castor, and Regulus in Leo, rising in the east. Saturn, low in the west during early evening and bright Jupiter, high within Constellation Gemini, add to the evening's luster.



THE MOON. The Moon reaches **last quarter on February 9** (exactly at 5:43 AM MST), and from February 10 to 16, the crescent Moon wanes. The **Moon is new on February 17** (exactly new at 5:01 AM MST), when it eclipses the Sun, as seen from parts of Earth's southern hemisphere. Between February 18 and

23, watch the crescent Moon wax in the evening sky. **The Moon reaches first quarter on February 24** (exactly at 5:27 AM MST).

On February 11 between about 4 AM and 6 AM MST, look for the 31%-illuminated, crescent Moon about 4 to 6 degrees southeast the reddish star, Antares. On February 18 between about 6:25 PM and 7:10 PM MST a skinny (3%-illuminated) lunar crescent is less than 1 degree above the Planet Mercury, a striking sight in binoculars or wide-field telescopes! On February 19 from about 6:30 PM to 8 PM MST, look for the 7%-illuminated, crescent Moon about 5 degrees north of Saturn.

Enjoy seeing earthshine delicately illuminate the nightside of the crescent Moon, especially on mornings from February 11 to 15, and on evenings from February 18 to 21 (binoculars can provide eye-catching views!). NASA has published a stunning visualization of lunar phases for year 2026. 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.**

SPOT MERCURY AS AN "EVENING STAR"! During February, Mercury makes its second-best (or perhaps best?) evening appearance of 2026. By February 8 at around 6:15 to 6:25 PM MST, you may be able to spot the Innermost Planet about 5 to 3 degrees above an unobstructed, west-southwestern horizon (with the Sun about 7 to 9 degrees below that horizon). Mercury gets higher in our evening sky between February 9 and 19, as its angular separation from the Sun increases. Between February 8 and 24, Mercury fades from magnitude -1.1 to magnitude +0.5, as its phase (as seen through telescopes) wanes from gibbous (87%-illuminated) to a 25%-illuminated crescent, and its apparent diameter increases from 5.6 to 8.5 arc seconds. Mercury was at superior conjunction on January 21, when it was 132 million miles distant, as it passed about 2 degrees south of the Sun in our sky. Between February 8 and 24, Mercury's distance from Earth decreases from 112 million to 74 million miles. On February 18 between about 6:25 PM and 7:10 PM MST, Mercury is less than 1 degree below a skinny (3%-illuminated) crescent Moon, a striking sight in binoculars or wide-field telescopes! On February 24 between about 6:27 PM and 6:45 PM MST, look for Mercury about 5 degrees above and to the right of brilliant Venus, which is making its own entrance into our evening sky (binoculars and an unobstructed western horizon will help). **Please do your Mercury spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

VENUS ENTERS THE EVENING SKY! After spending much of 2025 in the morning sky and undergoing superior solar conjunction on January 6, Venus reappears in our evening sky. You may be able to spot Venus as early as February 17 at 6:20 PM MST, when our Sister Planet is 3 degrees above an unobstructed west-southwestern horizon with the Sun 6 degrees below that horizon. Venus is shining brightly at magnitude -3.9, but glaring twilight detracts from its luster during this period. Venus will get a bit easier to spot by February 24 between about 6:27 and 6:45 PM MST, when it's about 5 degrees below and to the left of Mercury. Through telescopes, Venus' nearly full, 10 arc second-wide, gibbous disk is 98% illuminated. While at superior conjunction on January 6, Venus was 159 million miles distant, and our "Sister Planet" is 155 million miles distant on February 24. Venus will be a dazzling "evening star" through the spring and summer months of 2026. **Please do your Venus spotting after sunset. NEVER chance looking at the Sun without taking proper precautions. Serious eye damage can result.**

SATURN IN THE EARLY EVENING. As the sky darkens, the Ringed Planet is less than 25 degrees above the west-southwestern horizon. Saturn sets in the west at about 8:48 PM MST on February 9 and 7:57 PM MST on February 24. During this period, Saturn shines at +1.0, as its distance from Earth increases from 954 million to 966 million miles. Look for Saturn to pass less than 1 degree south of Neptune on February 15 (see item below). Through telescopes, Saturn's disk appears 16 arc seconds wide, and its

rings span 37 arc seconds. During early 2026, Saturn's thin rings (150,000 miles wide but only about 1000 ft thick!) appear nearly "edge-on" from our perspective on Earth. These rings are not as striking as they have been in the past few years (and will be a few years from now). Saturn's rings will gradually appear to "open" from Earth's perspective later in 2026. When seen nearly edge-on, Saturn's rings are dimmer than average, 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/SATURN CONJUNCTION – FEBRUARY 15! Neptune is very near Saturn in the early evening sky. In fact, on February 15, Saturn passes less than 1 degree south of the 8th Planet. This is the third and final of three Neptune/Saturn conjunctions in 2025 and 2026, the past two having occurred last June 29 and August 6. The next Neptune/Saturn conjunction won't occur until June 2061, when the two planets will be too close to the Sun in our sky to observe safely. While Saturn is easily visible to the unaided eye at magnitude +1.0, you'll need a telescope (or large aperture binoculars) to see Neptune at magnitude +7.8. Neptune's blueish disk appears 2.2" arc seconds wide, when viewed through telescopes. The Eighth Planet is 2.86 billion miles from Earth during this period. You can use Saturn as a guide to find Neptune (see chart below). Or use this link:
https://theskylive.com/neptune-info

Saturn & Neptune <1° Apart
February 15, 2026: 6:45 PM MST

At right: A simulation (as seen through a wide-field telescope) of the Neptune / Saturn conjunction on February 15 at 6:45 PM MST. This is the third and final of 3 Neptune / Saturn conjunctions in 2025 and 2026. Saturn shines prominently at magnitude +1.0, about 19° above the western horizon (with the Sun 11° below that horizon). But you'll need a telescope to see blueish Neptune, shining at magnitude +7.8. A telescope will also reveal some of Saturn's bright moons and its impressive ring system.

Simulated using Stellarium with a 5 X 5 arc minute grid.

URANUS. As the sky darkens, Uranus is more than 60 degrees high in the south southwest and well placed for viewing. The 7th Planet sets in the west northwest at 1:44 AM MST on February 9 and 12:45 AM MST on February 24. Uranus is moving slowly against the stars of Constellation Taurus, about 5 degrees south of the Pleiades Star Cluster. You can use this link to find Uranus:
https://theskylive.com/uranus-info
At magnitude +5.7, you can see the 7th Planet easily with binoculars, and perhaps even with eyes unaided when the Moon is below the horizon. But you'll need a telescope to resolve Uranus' 3.6 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 time to view the 7th Planet is soon after the sky darkens at around 7:15 PM MST, when the 7th Planet is still high in the sky. Uranus is 1.81 billion miles from Earth during this period.

JUPITER AND ITS LARGE MOONS. Bright Jupiter, moving against the stars of Gemini, is more than 30 degrees high in the east as darkness falls and culminates more than 70 degrees above the southern horizon around 9:30 PM MST. Jupiter sets in the west northwest at around 5:25 AM MST on February 9 and 4:23 AM MST on February 24. Between February 9 and 24, the Giant Planet fades from magnitude -2.57 to -2.47, as its distance from Earth increases from 408 million to 422 million miles, and its apparent diameter decreases from 45.0 to 43.4 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. **There's a "primetime" transit of Ganymede's shadow on February 18 from 6:54 PM to 10:22 PM MST.** 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.

February 8 to 9, 2026, 9:22 PM to 12:12 AM MST, Europa's shadow crosses Jupiter (Locally, this event begins with Jupiter 71 degrees high in the south and ends with Jupiter 59 degrees high in the southwest).

February 10, 2026, 4:26 AM to 6:42 AM MST, Io's shadow crosses Jupiter (Locally this event begins with Jupiter 10 degrees high in the west northwest and ends long after Jupiter sets).

February 11, 2026, 2:56 PM to 6:20 PM MST, Ganymede's shadow crosses Jupiter (Locally, this event begins in daylight before Jupiter rises and ends in evening twilight with Jupiter 42 degrees high in the east).

February 13, 2026, 5:22 PM to 7:40 PM MST, Io's shadow crosses Jupiter (Locally, this event begins before the Sun sets with Jupiter 32 degrees above the eastern horizon and ends in a dark sky with Jupiter 59 degrees high in the east).

February 15 to 16, 2026, 11:58 PM to 2:48 AM MST, Europa's shadow crosses Jupiter (Locally this event begins with Jupiter 56 degrees high in the west and ends with Jupiter 23 degrees above the western horizon).

February 18, 2026, 6:54 PM to 10:22 PM MST, Ganymede's shadow crosses Jupiter (Locally, this event begins with Jupiter 54 degrees high in the east during late twilight and ends with Jupiter 70 degrees high in the west southwest).

February 19, 2026, 12:48 AM to 3:06 AM MST, Io's shadow crosses Jupiter (Locally, this event begins with Jupiter 44 degrees high in the west and ends with Jupiter 17 degrees above the west-northwestern horizon.

February 20, 2026, 7:18 PM to 9:36 PM MST, Io's shadow crosses Jupiter (Locally this event begins with Jupiter 60 degrees high in the east southeast and ends with Jupiter 73 degrees high in the south).

February 23, 2026, 2:34 AM to 5:34 AM MST, Europa's shadow crosses Jupiter (Locally this event begins with Jupiter 26 degrees high in the west northwest and ends after Jupiter sets).

COMETS IN 2026. Will there be a bright comet this year, like Comet NEOWISE (C/2020 F3) in 2020, Comet Tsuchinshan/ATLAS (C/2023 A3) in 2024, or Comet Lemmon (C/2025 A6) in 2025? Comet PanSTARRS (C/2024 R3) may become bright enough to view with binoculars by mid to late April, and there's a chance that it could become visible to our eyes unaided. The brightest comets of the past few years have been "wild comets", a term that some astronomers use for newly discovered comets that enter the inner Solar System from the distant Kuiper Belt or the more distant Oort Cloud. Let's hope for some bright, new "wild comets" in 2026!

Comet Wierzchos (C/2024 E1) is currently too far south to see from Western Colorado, but it may become visible during the last few days of February into early March. Newly discovered, Sun-grazing Comet C/2026 A1 (MAPS) may become bright in early April. Periodic Comet 24P/Schaumasse already made its closest approach to Earth and the Sun during early January and is now predicted to fade. But as of February 8, 24P was still close to its maximum brightness (magnitude +8 to +10), and you may be able to spot this Comet with a telescope, as it moves eastward through the southern part of Constellation Boötes into Serpens Caput in the predawn hours. See "real-time" brightness estimates and finder charts for Comet Schaumasse here…
https://astro.vanbuitenen.nl/comet/24

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 11:30 PM MST, and the Constellation is more than 70 degrees high in the south at 5:15 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 perhaps later this year. Then this "new star" may fade rapidly below naked-eye visibility in about a week. As of 5 AM (MST) on February 8, T CrB had not yet erupted. Astronomer Jean Schneider predicted that an eruption is mostly likely on or about June 25, 2026. But an eruption could happen at any time! You can find additional info at these sites…
https://blogs.nasa.gov/Watch_the_Skies/2024/02/27/view-nova-explosion-new-star-in-northern-crown/
https://www.aanda.org/articles/aa/full_html/2023/12/aa48372-23/aa48372-23.html

THE SUN. The Sun has been very dynamic 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 January 18, February 1 (two!) and February 2, 3 and 4! CMEs have triggered geomagnetic storms that caused auroras, including an aurora on the evening of January 19, which was observed and photographed from the Western Slope. As of February 8, there are several large active regions on the earth-facing side of the Sun, so we may experience more M- and possibly X-class (extreme) flares and

powerful CMEs. The best way to monitor sunspots, solar flares, CMEs, and other solar activity safely (and in "real time") is by using the internet. To safely monitor the Sun, check out the following sites…
https://sohowww.nascom.nasa.gov/data/realtime-images.html
https://sdo.gsfc.nasa.gov/data/
https://stereo.gsfc.nasa.gov/beacon/
http://halpha.nso.edu/
https://www.swpc.noaa.gov/
http://www.sidc.be/silso/ssngraphics
There is an annular solar eclipse on February 17 that is visible from parts of Antarctica and the Indian Ocean (and visible as a partial eclipse for parts of southern Africa).
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"). With continuing high solar activity, there may be geomagnetic storms that trigger auroras that could become visible from the Western Slope. Get predictions and updates for auroras, their intensity, and geographic extent from NOAA's Space Weather Prediction Center:
https://www.swpc.noaa.gov/products/aurora-viewline-tonight-and-tomorrow-night-experimental
Auroras are most frequently seen from high latitudes, e.g., from Canada, Alaska, Iceland, northernmost Europe, southern New Zealand, and Antarctica. But many people have viewed and photographed auroras from the Western Slope in the past two years, including a spectacular aurora on November 11, 2025 and another aurora on the evening of January 19 and early morning of January 20, 2026. Also, 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 the 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