

IAAS Monthly Astronomy Newsletter March 2025



The International Association for Astronomical Studies provides this newsletter as a service for interested persons worldwide.

This newsletter is published on the World Wide Web at [The Home of K1ØAR](#) - and is received nationally and internationally. Download the [PDF](#) formatted version of the newsletter.



An Open Invitation - For amateur radio operators and scanner enthusiasts around the world, please join the Colorado Astronomy Net on the [Rocky Mountain Radio League's K1DUN](#) repeater on **449.450 MHz** or other digital and analog repeaters, Allstar nodes, Echolinks, DMR and internet links connected to the [SKYHUBLINK](#) system. The net meets on Tuesday nights at 7 P.M. Mountain Time (US) (Wednesday at 0200 GMT). Connecting to the SkyHubLink system has expanded our coverage in the U.S., Canada and internationally. All Amateur radio operators worldwide are welcome. Anyone may listen to the net. The RMRL provides a "[Live Audio Feed](#)" using Broadcastify.

Obtain your Amateur Radio (Ham) License or your General Radio Operator's License (GROL)! Visit the [South Metro VE Team](#) website for more information. The South Metro VE Team provides test sessions by appointment only. Check the website for current information. All others interested in Amateur Radio, check out the [Amateur Radio Relay League](#) website to find out more information about becoming an Amateur Radio operator.

The [Colorado Astronomy Net](#) and the [IAAS](#) are on Facebook page. Be sure to "Like" us.

Donate to the [IAAS](#)!
Your contributions are tax deductible.
Thank you for your support!



Excerpts from JPL mission updates are provided as a public service as part of the [JPL Solar System Ambassador / NASA Outreach](#) program.



"A total lunar eclipse will wow North and South America this month as the Moon passes through Earth's penumbra, as it did during the November 2022 eclipse pictured here." Astronomy Magazine, March 2025, p. 28. - Dylan O'Donnell

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The [Month At-A-Glance](#)

The current month's calendar displaying the daily astronomical events.

The Moon

Phases:

- First Quarter Moon occurs on the 6th.
- Full Moon occurs at 2:55 A.M. EDT on the 14th.
- Last Quarter Moon occurs on the 22nd.
- New Moon occurs at 6:58 A.M. EDT on the 29th.

- The Moon is at [perigee](#) (224,914 miles from Earth) on the 1st.
- The Moon is at [apogee](#) (252,124 miles from Earth) on the 17th.
- The Moon is at [perigee](#) (222,530 miles from Earth) on the 30th.



Moon/Planet Pairs:

- The Moon passes 1.6° north of Neptune on the 1st.
- The Moon passes 6° south of Venus on the 1st.
- The Moon passes 5° north of Uranus on the 4th.
- The Moon passes 6° north of Jupiter on the 6th.
- The Moon passes 1.7° north of Mars on the 8th.
- Mercury passes 6° south of Venus on the 9th.
- The Moon passes 0.4° south of Spica on the 16th.
- The Moon passes 0.5° south of Antares on the 20th.
- The Moon passes 0.9° south of Pluto on the 24th.
- The Moon passes 9° south of Venus on the 28th.
- Venus passes 10° north of Saturn on the 30th.

For reference: The Full Moon subtends an angle of $\sim 0.5^\circ$.

[Calendar of All Astronomical Events 2025](#)

[Weekly Rocket Report](#)

Courtesy of "The Rocketman" Ed W6RDZ

Updated Weekly on Tuesday evenings
prior to the Colorado Astronomy Net

The Planets & Dwarf Planets

[Planetary Reports](#) are generated by "[TheSkyX](#)" software. These reports provide predicted data for the planets on the first of each month for the current year. The rise and set times for the Sun and the Moon for each day of the month as well as meteor shower radiants are also included in the reports. These reports have been optimized for the Denver, Colorado location, however, the times will be approximate for other locations on Earth.

(Times are Mountain Time (MST/MDT) unless otherwise noted. Times will vary slightly depending on your location.)

Planetary Highlights for March

"A total eclipse of the Moon is the highlight of this month, visible across North and South America. Venus remains very bright and transitions from evening to morning late in the month. Mercury joins Venus for a few evenings, offering the best opportunity to see both planets in twilight. Mars and Jupiter dominate the late evenings, providing many hours of planetary observation with tantalizing features to see in small scopes." Astronomy Magazine, March 2025, p. 28.

Mercury



Is at greatest eastern [elongation](#) (18°) on the 8th. Mercury is [stationary](#) on the 14th. Mercury is in [inferior conjunction](#) on the 24th. Mercury sets at 7:13 p.m. on the 1st. After conjunction, Mercury returns to the morning sky, rising about 6:06 a.m. by month's end. Mercury is visible about 30 minutes after sunset just above the western horizon during the first two weeks of March. Mercury is in the [constellation](#) of [Pisces](#) shining at [magnitude](#) -1.0 on the 1st.

Venus



Is in [inferior conjunction](#) on the 22nd. Venus sets about 8:27 p.m. on the 1st and about 6:16 p.m. by month's end. Look for Venus to the west about 30 minutes after sunset. Venus is in the constellation of [Pisces](#) shining at magnitude -4.8 on the 1st.



Earth



[Daylight Saving Time](#) begins for most of the U.S. at 2:00 a.m. local on the 9th.

[Vernal equinox](#) occurs at 5:01 A.M. EDT on the 20th.



Mars

Sets at 4:17 a.m. on the 1st and about 3:35 a.m. by month's end. Look for Mars to the south in the evening. Follow Mars across the sky for the rest of the evening and into the early morning hours. Mars is the constellation of

[Gemini](#) shining at magnitude 0.1.



Jupiter

Sets at 1:27 a.m. on the 1st and about 12:44 a.m. by month's end. Jupiter is easy to spot to the south-southwest in the evening sky. Follow Jupiter across the sky for the rest of the evening.

Jupiter is in the constellation of [Taurus](#) shining at magnitude -2.2.



The shadows of Ganymede and Europa cross the face of Jupiter together March 12, 2012. All of the shadows, including Ganymede's, are arranged from edge to edge with Jupiter's shadow, Ganymede's, and Europa's.



Saturn

Is in [conjunction](#) with the Sun on the 12th. Saturn sets at 6:34 p.m. on the 1st. After conjunction, Saturn returns to the morning sky, rising about 6:13 a.m. by month's end. Look for Saturn very low to the west during the first week of the month and then very low to the east during the last week of the month. Saturn is in the constellation of

[Aquarius](#) shining at magnitude 1.1.



Uranus

Sets at 11:52 p.m. on the 1st and about 10:56 p.m. by month's end. Look for Uranus to the southwest soon after sunset. Uranus is in the constellation [Taurus](#) shining at magnitude 5.8.



Neptune

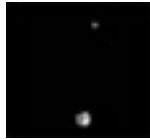
Is in [conjunction](#) with the Sun on the 19th. Neptune sets at 7:15 p.m. on the 1st. After conjunction, Neptune returns to the morning sky rising about 6:23 a.m. by the month's end. Look for Neptune to the west following Saturn by less than an hour during the first week of the month. Neptune is in the constellation of [Pisces](#) shining at magnitude 7.8.

Dwarf Planets



Ceres

Rises at 6:48 a.m. on the 1st and about 6:17 a.m. by month's end. Ceres is lost in the morning twilight glow all month and is not visible. Ceres is in the constellation of [Aquarius](#) shining at magnitude 9.2.



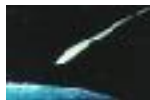
Pluto

Rises at 5:03 a.m. on the 1st and about 4:04 a.m. by month's end. Pluto can be spotted before sunrise to the east. Pluto is in the constellation of [Capricornus](#) shining at magnitude 15.3.

As always, good luck at spotting Neptune, Ceres and Pluto, a large telescope and dark skies will be needed.

Constellation information provided by [Go Astronomy](#).

Astronomical Events



Meteor Showers

- "EARLY SPRING is not well known for [meteor showers](#), with no major events occurring this month. It is,

however, a great month to spot the zodiacal light. The best opportunities occur when the Moon is out of the way, in the first three days of March and again during the last two weeks of the month.

Look for a delicate cone-shaped glow extending above the horizon through Pisces, Aries, and Taurus. Try using peripheral vision to spot the arching cone of light by scanning your eyes left to right along the western horizon. You'll need a clear, dark horizon unaffected by lights or distant city glows, which mask the effect.



The zodiacal light is aligned with the ecliptic, Earth's orbital plane, and comes from sunlight reflecting off fine, dusty debris littering the inner solar system, left over by passing comets long ago." Astronomy Magazine, March 2025, p. 29.

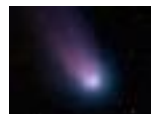
For more information about Meteor Showers, visit Gary Kronk's [Meteor Showers Online](#) web page.

[Meteor Shower Radiant Report](#)

[Meteor Scatter](#) (or Meteor burst communications) -- "is a radio [propagation mode](#) that exploits the [ionized](#) trails of [meteors](#) during [atmospheric entry](#) to establish brief

communications paths between [radio stations](#) up to 2,250 kilometres (1,400 mi) apart." Tune your shortwave or your HF amateur radio to 54.310 MHz USB CW and see if you can hear any pings. Try other frequencies as well... 6m FT8 digital - 50.313 Mhz & 50.276 Mhz, JP-65 digital mode and the carrier frequencies of the lower VHF bands for TV channels 2, 3 & 4.

[Meteor Rx How-To](#) by Terry Bullett (WØASP).



Comets

- [Comet C/2024 G3 \(ATLAS\)](#) is visible in the southern hemisphere in the constellation of [Phoenix](#). Comet G3 will dim from magnitude 8.5 to 11.4 this month as it recedes from the Sun.
- [Comet C/2022 E2 \(ATLAS\)](#) is visible in the northern hemisphere in the constellation of [Andromeda](#), shining around magnitude 12.



For information, orbital elements and ephemerides on observable comets visit [Observable Comets](#).

For more information about Comets, check out Gary Kronk's 6-volume series of books on [Cometography](#).

Eclipses



- A partial [solar eclipse](#) occurs on the 29th, visible northeastern US, eastern Canada, Greenland, Europe and northern Russia. [Maximum eclipse occurs on March 29](#) at 10:47:27 UTC.
- A [total lunar eclipse](#) occurs on the 13/14th, visible over North and South America. [Maximum eclipse occurs on March 14](#) at 06:58:42 UTC.



Observational Opportunities

(from evening to morning)

- Look for *Saturn, *Neptune, *Mercury, Venus, Uranus, Jupiter and Mars in the evening from the west to south. *First week of the month.

Asteroids

(From west to east)

- **Eunomia** is in the constellation of [Taurus](#).
- **Flora** is at [opposition](#) on the 12th in the constellation of [Coma Berenices](#).
- **Vesta** is [stationary](#) on the 23rd in the constellation of [Libra](#).
- **Juno** is stationary on the 22nd in the constellation of [Ophiuchus](#).



Information about the Minor Planets can be found at the [MinorPlanet.info](#) web site.

Occultations



Information on various [occultations](#) can be found at the [International Occultation Timing Association's \(IOTA\)](#) web site.

Member Meteor Sightings

In this section I will post meteor, fireball, etc sightings that have been published on the [American Meteor Society's](#) web site. I want to make this an active section of the web pages and newsletter and would like to publish the links to member sightings. If you have any published sightings, please provide me with the links and I will post them here for all to enjoy.

<u>Event ID</u>	<u>Date/Time</u>	<u>Location</u>	<u>Observer</u>	<u>Link</u>
3871-2015	2015-11-13 01:55 MST	CO	Charles N	3871a
3587-2015	2015-11-22 17:38 MST	CO	Kevin S	3587aw
3829-2015	2015-12-05 18:06 MST	CO	Burness A	3829a
986-2020	2020-02-21 22:20 MST	CO	Lukas S	986
3716-2020	2020-07-24 23:22 MDT	CO	Lukas S	3716
4774-2021	2021-08-13 21:57 MDT	UT	Lukas S	4774
7044-2021	2021-10-28 20:37 MDT	CO	Burness A	249058
6763-2022	2022-10-06 05:56 CDT	OK	Mike C	6763
5300-2023	2023-09-11 22:04 MDT	CO	Lukas S	5300
578-2024	2024-01-28 23:05 MST	CO	Lukas S	578

[Subscriber Gallery](#)

I have created a web page containing images taken and submitted by subscribers (or special images) to the email newsletter, check-ins to the Colorado Astronomy Net and readers of the online newsletter and some of my own images. Anyone wishing to submit their images to the gallery, please send me an email. The images must be taken by the submitter and be astronomy related. Please include a description and your information so that I can give proper credit to your work. I will post the most recent submissions here.

M42 - The Orion Nebula

Courtesy of Roy Murray (KI7PKL)

Astrophotography with the SkyWatcher HEQ-5 and Celestron C6

Images taken January 2025



"M42, The Orion Nebula, is one of the brightest, most photographed deep sky objects in the sky. It's part of the "flaming sword of Orion", just below the three stars that form his belt. Orion is a stellar nursery - A region with lots of dust and gasses just floating around and eventually forming new stars. This image was compiled by stacking about 600 frames, consisting of ten hours of imaging over three nights."

Planetary/Lunar Exploration Missions

(Excerpts from recent mission updates)



JPL Latest News

The Latest from Space

[The Origin of JPL](#) (a Youtube video-1 Hour 29 minutes).



James Webb Space Telescope

Information on the James Webb Space Telescope mission is available at [The James Webb Space Telescope](#) website.

The public can follow the mission on [Facebook](#), [Twitter](#) and [YouTube](#).



Juno

Information on the Juno mission is available at [Juno](#) and [Mission Juno](#). Images from NASA's [JunoCam](#).

The public can follow the mission on [Facebook](#) and [Twitter](#).



TESS

Information on the TESS mission can be found on the [Latest Tess News](#) page.

[Past, Present, Future and Proposed JPL Missions](#)

For special JPL programs and presentations in your area visit the [JPL Solar System Ambassador](#) web site.

Mars Missions

[Be A Martian](#)



Mars website mobile version is here!
Simply type
<http://mars.jpl.nasa.gov>
into your mobile browser.

Mars on the Go! NASA Be A Martian Mobile App

If you want the latest news as it happens, try out the "Be A Martian" app.

Download on Mobile Devices

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JMARS

[JMARS](#) is an acronym that stands for Java Mission-planning and Analysis for Remote Sensing. It is a geospatial information system (GIS) developed by ASU's Mars Space Flight Facility to provide mission planning and data-analysis tools to NASA's orbiters, instrument team members, students of all ages, and the general public.



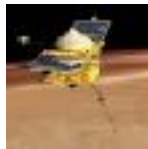
Laboratory for Atmospheric and Space Physics

"The Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado Boulder (CU) began in 1948, a decade before NASA. We are the world's only research institute to have sent instruments to all eight planets and Pluto.



LASP

Visit the [LASP](#) website for latest news and information.



MAVEN

Visit the [MAVEN](#) website for latest news and information.



Mars 2020 - Perseverance

Visit the [Mars 2020 \(Perseverance\)](#) mission website for mission information and news updates.



Mars Science Laboratory - Curiosity

Visit the [Mars Science Laboratory](#) website for mission information and news updates.

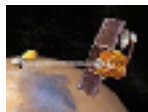


Mars Reconnaissance Orbiter Mission

Mars Reconnaissance Orbiter HIRISE Images

View all of the archived [HiRISE](#) images.

More information about the [MRO](#) mission is available online.



Mars Odyssey Orbiter

Daily Mars Odyssey THEMIS Images

Thermal Emission Imaging System ([THEMIS](#)) web site.

Visit the [Mars Odyssey Mission](#) website for mission information and news updates.

Mars Missions Status

New Mars missions are being planned to include several new rover and sample collection missions. Check out the [NASA Mars Exploration](#) web page.

[Astronomy Links and Other Space News](#)

(If you have a link you would like to recommend to our readers, please feel free to submit it.)

[Colorado Astronomy Links](#)

[Radio Astronomy Links](#)

[More Astronomy Links](#)

Acknowledgments and References

Much of the information in this newsletter is from "Astronomy Magazine" (Kalmbach Publishing), JPL mission status reports, "Meteor Showers - A Descriptive Catalog" by Gary W. Kronk and other astronomical sources that I have stashed on my book shelves.

The author will accept any suggestions, constructive criticisms, and corrections. Please feel free to send me any new links or articles to share as well. I will try to accommodate any reasonable requests. Please feel free to send questions, comments, criticisms, or donations to the email address listed below. Enjoy!

Subscription Information

- Email Newsletter [archives](#).
- [Full documentation](#) of the online administration system.
- The latest version of the [newsletter](#).

Keep looking UP!

73 from KIØAR

Created by Burness F. Ansell, III

[Email](#)

COO, Director of Aerospace Technologies, IAAS

JPL Solar System Ambassador, Colorado

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