

# IAAS Monthly Astronomy Newsletter May 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 KIØAR](#) - 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 0100 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.

**The [Colorado Astronomy Net](#) is now on YouTube!!  
All are welcome to join us Tuesday evenings!**

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.



*"Mars stands near the Beehive Cluster (M44) at upper left in this 2010 astro photo. The Red Planet again visits the Beehive this month." Astronomy Magazine, May 2025, p. 28.  
- Alan Dyer*

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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 4th.
- Full Moon occurs on the 12th.
- Last Quarter Moon occurs on the 20th.
- New Moon occurs on the 26th.
  
- The Moon is at [apogee](#) (252,428 miles from Earth) on the 10th.
- The Moon is at [perigee](#) (223,086 miles from Earth) on the 25th.



### Moon/Planet Pairs:

- The Moon passes  $2^\circ$  north of Mars on the 3rd.
- Venus passes  $2^\circ$  north of Neptune on the 3rd.
- The Moon passes  $0.4^\circ$  south of Spica on the 10th.
- The Moon passes  $0.3^\circ$  south of Antares on the 14th.
- The Moon passes  $0.4^\circ$  south of Pluto on the 18th.
- The Moon passes  $3^\circ$  north of Saturn on the 22nd.
- The Moon passes  $2^\circ$  north of Neptune on the 22nd.
- The Moon passes  $4^\circ$  north of Venus on the 23rd.
- The Moon passes  $5^\circ$  north of Jupiter on the 28th.

*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.)*

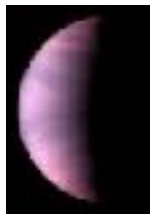
## Planetary Highlights for May

"Jupiter and Mars are on display during May evenings. It's your last chance to grab a good view of Jupiter before it drops out of sight for midsummer. A gathering of planets in the morning sky offers some nice opportunities, and in the first week of May they're joined by meteors from the annual Eta Aquariid shower." Astronomy Magazine, May 2025, p. 28.



### Mercury

Is in [superior conjunction](#) on the 29th. Mercury rises at 5:10 a.m. on the 1st. After conjunction, Mercury returns to the evening sky, setting about 8:41 p.m. by month's end. Mercury is visible about 30 minutes before sunrise just above the eastern horizon during the first 3 weeks of the month. Mercury moves from the [constellation](#) of [Pisces](#) into [Taurus](#) shining at [magnitude](#) 0.1 on the 1st.



### Venus

Rises about 4:15 a.m. on the 1st and about 3:28 a.m. by month's end. Venus is at greatest western [elongation](#) ( $46^\circ$ ) on the 31st. Look for Venus to the east about 30 minutes to an hour before sunrise. Venus is in the constellation of

[Pisces](#) shining at magnitude -4.6 on the 15th.



The Moon hangs between bright Venus and Saturn in the early-morning sky in late May. Neptune, nearby, requires binoculars or a telescope to spot.



### Earth

N/A.



## Mars

Sets at 2:13 a.m. on the 1st and about 12:53 a.m. by month's end. Look for Mars to the southwest in the evening. Mars moves from the constellation of [Cancer](#) into [Leo](#) shining at magnitude 1.1.



In early May, Mars visits the Beehive Cluster (M44). On the 2nd, the Moon joins in as well. One night later, Mars skims 40' north of the Beehive's center.



## Jupiter

Sets at 11:07 p.m. on the 1st and about 9:35 p.m. by month's end. Jupiter is rapidly approaching the western horizon as the month progresses, so get out early to catch Jupiter before it sets. Jupiter is easy to spot to the west-southwest in the evening sky. Jupiter is in the constellation of [Taurus](#) shining at magnitude -1.9.



Callisto just skims the northern edge of Jupiter on May 11, not long before Io begins a transit and Ganymede, hidden in the planet's shadow, reappears to the northeast. Europa lies to the west, beyond this field of view.



## Saturn

Rises at 4:23 a.m. on the 1st and about 2:28 a.m. by month's end. Look for Saturn low to the east before sunrise. Saturn is in the constellation of [Pisces](#) shining at magnitude 1.1.



## Uranus

Is in [conjunction](#) with the Sun on the 17th. Uranus sets at 9:05 p.m. on the 1st. After conjunction, Uranus returns to the morning sky, rising about 4:52 a.m. by month's end. Look for Uranus to the southwest soon after sunset during the first week of the month, then during the last few days of the month to the east, very low to the horizon. Uranus is in the constellation [Taurus](#) shining at magnitude 5.8.



## Neptune

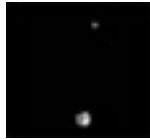
Rises at 4:27 a.m. on the 1st and about 2:27 a.m. by the month's end. Look for Neptune to the east following Saturn by just a few minutes all month. Neptune is in the constellation of [Pisces](#) shining at magnitude 7.8.

## Dwarf Planets



### Ceres

Rises at 4:48 a.m. on the 1st and about 3:13 a.m. by month's end. Ceres can be spotted low to the southeast before sunrise. Ceres moves from the constellation of [Aquarius](#) into [Cetus](#) shining at magnitude 9.3.



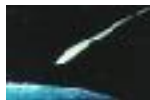
### Pluto

Is [stationary](#) on the 6th. Pluto rises at 2:07 a.m. on the 1st and about 12:04 a.m. by month's end. Pluto can be spotted before sunrise to the southeast. 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

- **The Eta Aquariids** [meteor shower](#) - This shower is visible during the period of April 21 to May 12. It reaches

maximum on May 5. During the period of greatest activity hourly rates usually reach 20 for observers in the northern hemisphere and 50 for observers in the southern hemisphere.

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 29P/Schwassmann-Wachmann 1](#) is in the constellation of [Leo](#) this month, and may reach 11th magnitude. An 8-inch telescope or better will be needed well away from city lights to spot this elusive object.

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](#).



Comet 29P/Schwassmann-Wachmann, also called Schwassmann-Wachmann I, is traversing the region near Omicron Leo, not far southwest of Regulus. Too faint? A week later it might be in outburst.

## Eclipses



- No [solar eclipse](#) activity this month.
- No [lunar eclipse](#) activity this month.

## Observational Opportunities

*(from evening to morning)*

- Look for Jupiter and Mars in the evening to the west.
- Look for Pluto, Ceres, Saturn, Mercury, Venus and Neptune in the morning to the east.

## Asteroids

*(From west to east)*

- **Vesta** is at [opposition](#) on the 2nd in the constellation of [Virgo](#).
- **Metis** is at opposition on the 9th in the constellation of [Libra](#).
- **Juno** is at opposition on the 14th in the constellation of [Libra](#).
- **Hebe** is in the constellation of [Aquarius](#).

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



Vesta is easy to find this month, skimming through a region with few stars rivaling its brightness.

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

## 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.

### **M51 - The Whirlpool Galaxy**

**Courtesy of Roy Murray (K17PKL)**

Image taken April 2025



"An old favorite, the Whirlpool Galaxy is in Ursa Major (The Big Dipper), near the end of the "handle". I had hoped to get a full ten hours of exposures, but only managed to get about 5 1/2 so far, so this is still a work in progress. Processed with the new Siril 1.4 Beta software."

# 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

[Android](#) | [iPhone](#) | [Windows Phone](#)



### **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.



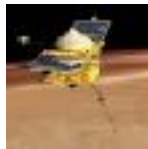
## Laboratory for Atmospheric and Space Physics

"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.

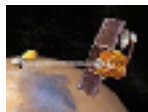


### Mars Reconnaissance Orbiter Mission

#### 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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