



The Astrophile Newsletter

One Fond of Starlore: An Amateur Astronomer

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Webb's First images are breathtaking



The \$10.6 billion space telescope didn't disappoint the science community after 24 years in the making

The James Webb Space Telescope, a replacement to the mighty Hubble Space Telescope was launched on Dec. 25, 2021 from Cape Canaveral in the US and has successfully passed all tests in space.

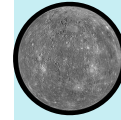
The 7.6m primary mirror and 4 on board instruments are working at full capacity, making observations of the universe since late April have really revealed many hidden facts of the cosmos. The telescope has helped astronomers see deeper in to space and observe fairer objects which was hidden from us so far.

The images taken by Webb has revealed information which will support many theories and thereof help us understand the universe better in the coming years. The telescope has already take images of many known objects and has revealed new information.

Moon phases and dates

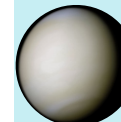
Important phases and dates for Moon to plan your observation

05/08/21	First Quarter	16:36
12/08/21	Full Moon	07:05
19/08/21	Third Quarter	10:06
27/08/21	New Moon	13:47



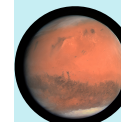
Mercury

Mercury is in the evening skies, rising with just after The Sun. It will be best observed on Aug 27 due to its Eastern Elongation. It is not advised to look at Mercury due to its proximity to Sun.



Venus

Venus is shining bright in the morning skies, and rising two hours before Sunrise. It will be visible all August in the morning skies.



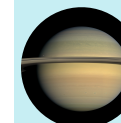
Mars

The red planet is rising around midnight and hence the second half of night is perfect to see it.



Jupiter

Jupiter will be in the sky by late evening and visible all night. The gas giant is offering a phenomenal views of its system.



Saturn

The ringed planet is visible throughout the night as it goes in to opposition on August 14. The planet will be at its brightest through out this month.

August celestial events are a charm for stargazers



- 03/08 - Moon occult 4.3 mag star Theta Virgins (double star) in Virgo in the evening
- 10/08 - Grazing occultation of 3.3 mag Tou Sagittari star in Sagittarius early morning
- 12/08 - The full Moon of August will be a supermoon.
- 12/08 - Perseids Meteor Shower will be peak on the morning of Aug 12 with up to 150 meteors per hour from dark sky location.
- 14/08 - Saturn at Opposition, rising with Sunset and setting with Sunrise.
- 18/08 - Venus in M44 (Beehive Cluster in Cancer)
- 27/08 - New Moon
- 27/08 - Mercury at greatest Eastern Elongation of 27.3 degree. It will be visible in the evening skies.
- All Aug - Comet C/2017 K2 PanStarrs will be visible in Ophiuchus at the beginning of August while it move towards Scorpio towards the end of August shining steady around 6.75 mag.

Perseid Meteor Shower coincides with Full Moon



Every August, on the night of 12 and 13, stargazers witness hundreds of meteors striking through the stars and enjoy the treat along with general stargazing.

We are talking about Perseid Meteor Shower which often count to about 120-150 meteors per hour. The shower originating due to the debris left by Comet Swift-Tuttle, they are known by the name of constellation from where they appear to originate.

The radiant (constellation) will rise close to the midnight and the meteors can be seen late evening till early morning. However this year the count is expected to be very less due to 16 day old Moon (Full Moon happening a day before), the count can be anything between 7-20 per hour. The brightness of the Moon will hide many faint meteors behind its light. One shall also consider the weather forecast since we are in the middle of the monsoon season. Still it would be a great opportunity.

ASTROPHILE ASTEROID SEARCH CAMPAIGN 2022 - 2023 DATES ANNOUNCED

Astrophile Education Services is continuing for the 5th year organising the scientific research program for the school students in India. Astrophile Asteroid Search Campaign is organised by Astrophile Education in collaboration with IASC where the students are given the opportunity to work on realtime data from the sky survey telescopes located in Hawaii.

The 1.8m telescope scans the sky and take images of a certain location after regular intervals which are then provided to the student participating in this campaign. These students then go through the data using a software to identify any new and unknown moving objects. Once the detected objects is accepted as preliminary asteroid the students receive a certificate.

Follow up observations confirm if the object is an asteroid or not. At this point the student may be credited for a provisional discovery. After further studies, the student get the responsibility of naming the same.

The participation to the campaign is free for all students of grade 9 onwards. The registration and participation in this campaign is free. If the team requires some sort of training, they can contact us. For more details, please visit the [website](http://www.astro-phile.com) for more details. For any query, each out to us at info@astro-phile.com; or WhatsApp us at +91-9315191335.

