



NAKSHATRA ASTRONOMY CLUB

Modern Education Society's College of Engineering

AY 2024-25

Event Report: Second Official Stargazing Night

Date: 10th January 2025

Time: 7:00 PM to 9:00 PM

Location: Parvati Hills

Telescope Used: 5-inch Newtonian Reflector Telescope

Summary:

On the evening of 10th January 2025, our stargazing session was conducted using our 5-inch Newtonian reflector telescope. The event lasted for two hours, during which we observed the Moon, Jupiter, and Venus. The sky was clear, providing excellent viewing conditions.

Observations:

1. The Moon

- **Time Observed:** 7:00 PM to 7:30 PM
- **Coordinates:** Right Ascension (RA): 07h 21m, Declination (Dec): $+24^{\circ}58'$
- The waxing crescent Moon displayed stunning surface details, including prominent craters and the shadow line along the terminator. The clarity of the features was remarkable, allowing us to identify craters such as Tycho and Copernicus and Apollo 11 landing site.

2. Jupiter

- **Time Observed:** 7:30 PM to 8:15 PM
- **Coordinates:** RA: 22h 11m, Dec: $-12^{\circ}48'$
- Jupiter appeared magnificent with its cloud bands clearly visible. Using a higher magnification smartphone camera, we could spot three of its



Galilean moons: Io, Europa, and Ganymede. Their relative positions added a dynamic aspect to the observation.

3. Venus

- **Time Observed:** 8:15 PM to 9:00 PM
- **Coordinates:** RA: 19h 52m, Dec: $-15^{\circ}21'$
- Venus, being the brightest object in the western sky, was a captivating sight. Its phase resembled a gibbous shape, showcasing its beauty as the "Evening Star."

Conclusion:

This stargazing event was an enriching experience, providing attendees with a closer look at celestial objects. The observations of the Moon, Jupiter, and Venus were particularly engaging, with their intricate details and unique characteristics. The session highlighted the potential of our 5-inch Newtonian telescope and served as an inspiration for further explorations of the night sky.

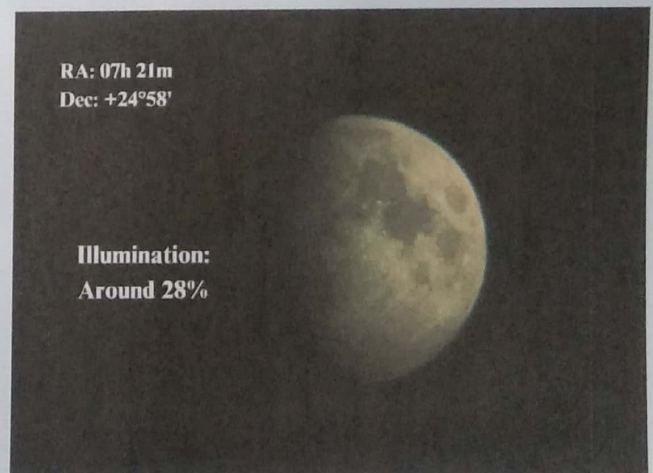
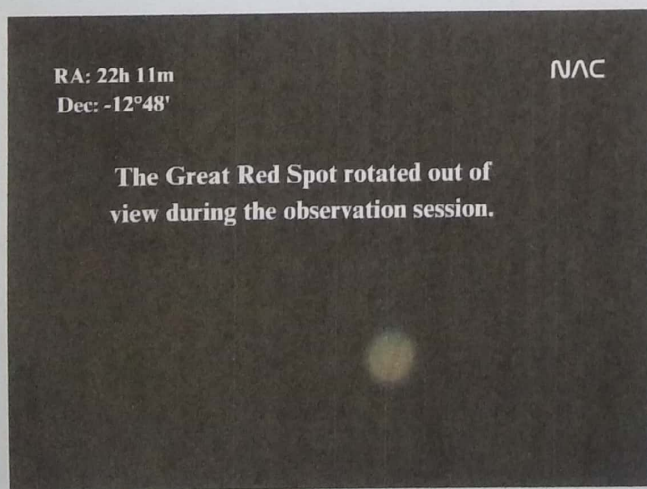
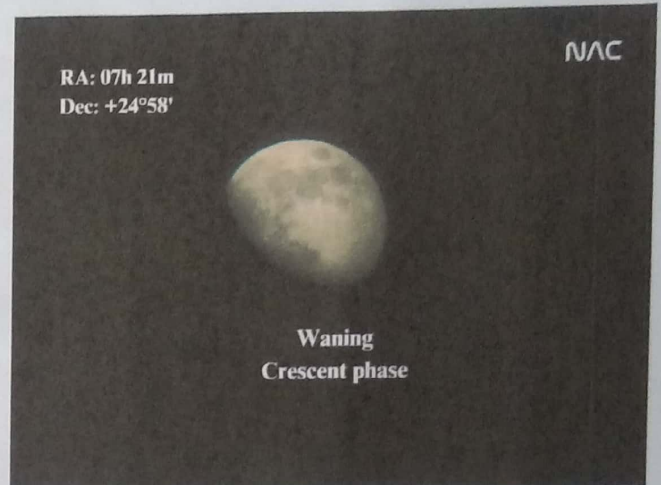
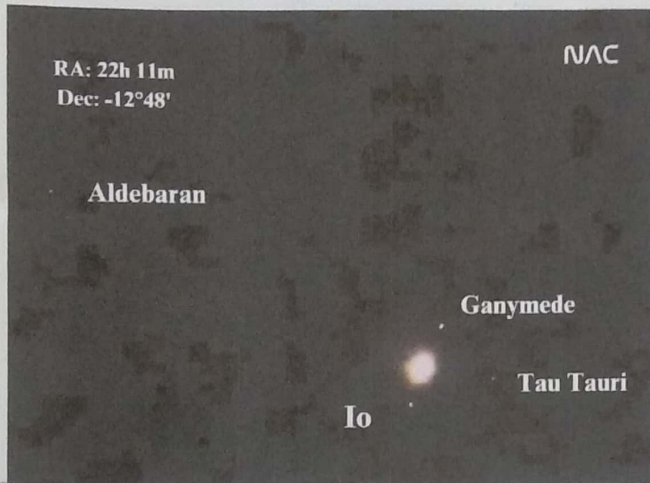
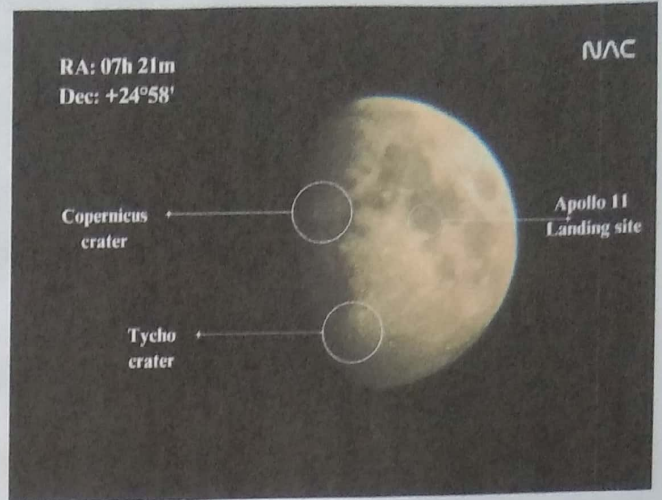
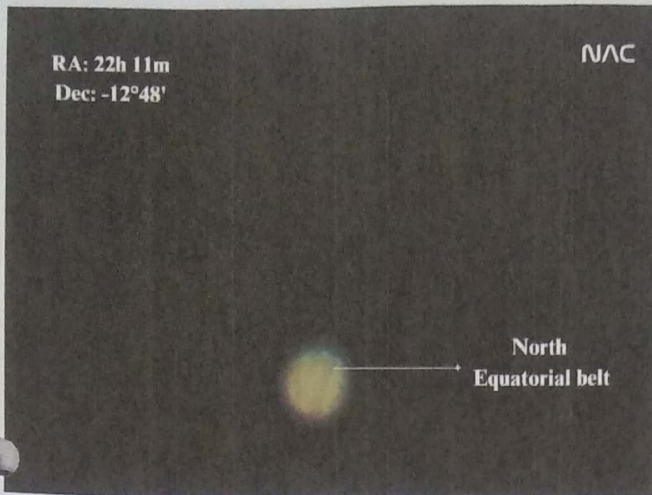
Notes:

- The telescope's alignment and tracking, though mostly precise, occasionally required adjustments, which interrupted the viewing experience.
- While the atmospheric conditions were generally favorable, some light pollution from nearby sources slightly impacted visibility.
- The limited aperture of the telescope made it challenging to discern finer details on Jupiter and Venus, especially under less-than-ideal seeing conditions.
- A slight haze appeared towards the later part of the session, reducing overall clarity and making Venus slightly harder to focus.

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Photographs



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