



Report

THE SKY WATCHING CAMP

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Sky watching is basically observing the sky to spend leisure time or out of interest for the enrichment of our knowledge on space and cosmos. To generate interest in celestial observation among the students and the teachers, a Sky Watching Camp was organized on the rooftop of the hostel of our college, Government College of Engineering and Ceramic Technology from 3pm to 9pm on 9th April under the guidance of our professors of physics Dr. Nilesh Majumder, Dr. Prasenjit Paul and Dr. Saibal Ray. Our professors set up a 6 inches Galilean telescope for watching the celestial objects. In this report our experience has been shared below.



Figs. 1&2: Pictures of the telescope

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- **OBSERVATIONS:**

- ❖ **PHASE I (*In the day light*)**

A screen was hold parallely in front of the eyepiece and the image of the sun could be seen. To see the sun through the telescope directly we can fit a solar filter. Keeping the screen at a certain distance the image was prominent and very light sunspot was seen. It was hard to capture with the camera.

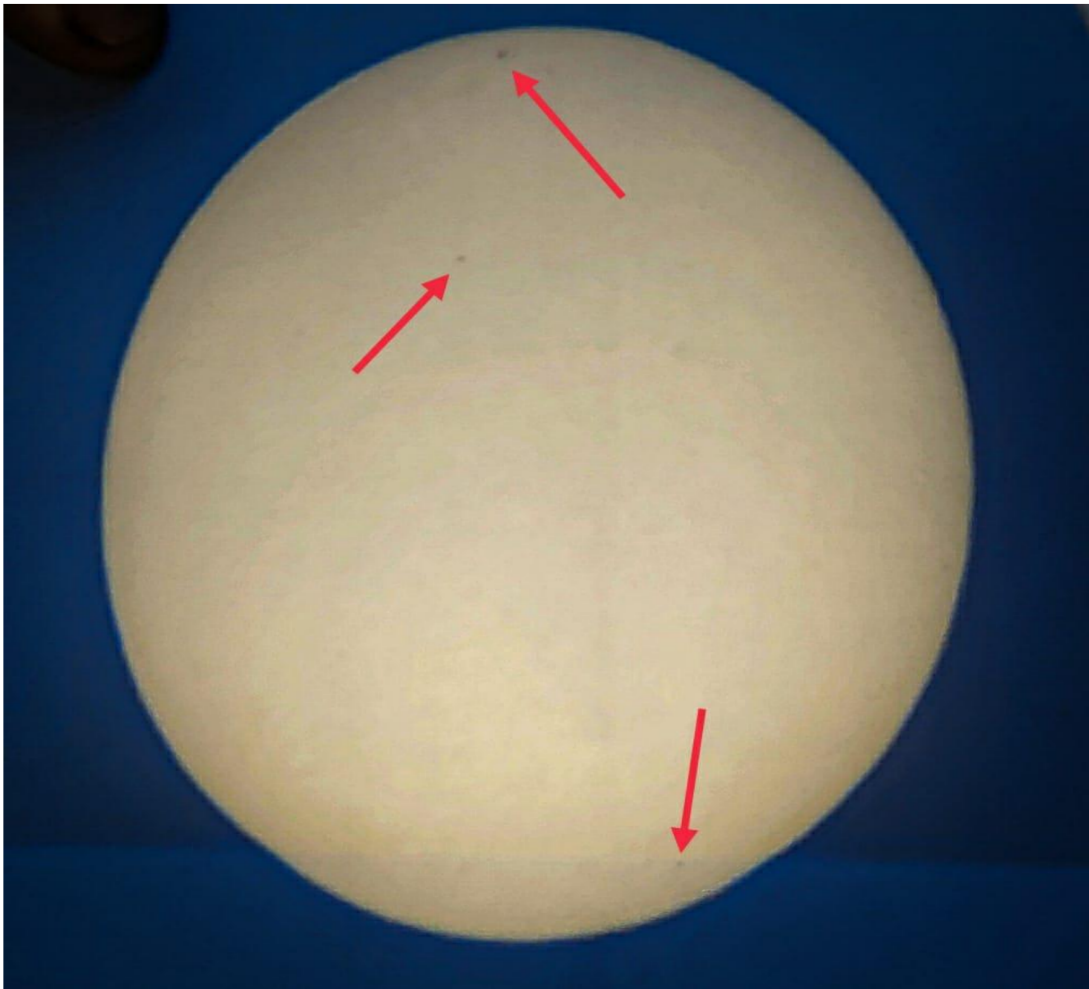


Fig. 3: The Sunspots

Three sunspots are formed on the screen. We had an option to watch Mercury but we also couldn't see that. It was visible in northern hemisphere.

❖ **PHASE II (After Sun set)**

As the sun sets slowly and we have seen the moon. We take our telescope to a place from which the moon could be seen. Fixing all the nobs and focusing the lens a beautiful, clear moon was seen by us. The craters on moon were clearly visible there. A Barlow lens was used to see the moon more clearly. Barlow lens create magnified image by increasing the effective focal length of the telescope. The Orion were also seen in the sky that day.



Fig. 4: Picture of the Moon captured

- **LIMITATIONS:**

For the bright rays of sun two solar filters got cracked. Holding the screen parallelly in front of the lens steadily for a long time was a problem. While observing the moons many times the clouds were covering it, that was also a problem. The moon was moving with time so we had to adjust the telescope accordingly many times. It was our first sky watching camp so it wasn't well organized.

- **FUTURE AIMS:**

Planets like Jupiter, Mars can only be seen from June onwards up to December. So we are like to organize our next sky-watching camp on October preferably. It will be better time to avoid the cloudy sky and also we are planning next sky watching camp on a place with less pollution. We can make our own data sheet time to time to understand the changes with time, more prominently. Some lectures or discussion can be held on this topic to grow our interest and knowledge.

Even though it was the first sky watching camp and we faced many difficulties, still the whole experience was very much interesting. We hope to explore more things of the sky next time.



Fig. 5: Fixing the telescope