THE PETERBOROUGH ASTRONOMICAL ASSOCIATION

N E W S L E T T E R

May 1980

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Current Astronomical Opportunities

Present astronomical viewing offers several excellent subjects to study. In particular, four planets are conspicuously visible at one time in the heavens. These are, from West to East - Venus, Mars, Jupiter and Saturn.

Venus is high in the western sky at sundown and is so brilliant it can be picked up by the inexperienced eye at a glance. It should not be missed. At present it is in partial crescent phase, progressing toward full thin crescent over the next few weeks. A small telescope is all that is needed to show the crescent shape and, indeed, large telescopes often require stopping down to small aperture to set rid of interfering diffraction rays due to Venus's great brightness at this time.

Historically, Venus in the evening sky has been spoken of as the "evening star". When visible in the morning before dawn in the East it has been called the "morning star".

Mars and Jupiter can be spoken of together as, at this time, they are close beside one another near the zenith in late evening. They are in the constellation Leo and are separated by only $3/4^{o}$ on May 4th and 5th. Therefore, a telescope with a wide field of view (low power eyepiece) could give one a view of both planets simultaneously then.

These planets are easy to find as they are both bright objects, Jupiter bright white and Mars has a reddish tint. With magnification of only 60-70x bands can be seen on Jupiter on a clear night. Even with binoculars the four large Galilean satellites of Jupiter can be easily seen. They are interesting to observe. They are not all visible at all times for as they orbit Jupiter they periodically pass behind it and are eclipsed, or in front when they are invisible also. Hourly and daily observation shows the movements, which can be correlated with published almanacs and the satellite identified.

On a clear night if lucky a person might be fortunate to see the great red spot on Jupiter.

Through small telescopes at this time Mars is a featureless but orangy, round disc.

Saturn at present is about 22^{o} east of Jupiter and so can be found in Leo, also by this measurement along the general path of the ecliptic. It is not a very conspicuous object at present being fainter than many stars although brighter than most. Its faintness is interesting because it is due to the fact that at present its rings are edge on to earth and invisible so that only the planet reflects light to us and without the light from the rings its apparent diameter or brightness is much lessened. Saturn, therefore, appears as a round white disc in an amateur telescope now. It will be interesting as the year progresses to watch for the first appearance of the rings as they begin to tilt back into view again on its 7-year cycle

In the meantime one can look for some of the satellites of Saturn.

Meteor Showers

During early May look for the Aquarius shower in the east during early morning.

Club Telescope Status

The 4¼" reflector is installed in it tube with its diagonal and eyepiece. It has been tested on the moon and Jupiter and performs creditably. All that remains to be done is to build the support (equatorial mount). I have acquired most of the material for the support and believe I can safely say the telescope will be completed, at the latest, by summertime.

MEETING: Friday, May 23, 1980 - 8:00 p.m., Catherine Parr Traill College, regular meeting room. Very Important that all members attend: