

PLANETARY SECTION

Summer has passed and now the Centres should be starting their programs again. We hope these will include observing the planets.

MARS: Drawings of this planet made during the recent apparition would be appreciated as arrangements have been made to exchange observations with the Mars section of the British Astronomical Association.

SATURN is getting higher and higher in the evening sky and it is hoped our observers will again don their parkas, mukluks and other paraphernalia and brave the elements! Observing Saturn is very valuable as it is the amateur who keeps track of the surface detail. (See Bulletin No.9 for observing hints.)

JUPITER should be having our attention, too, as it is observable in the morning sky for early risers. Timings of Satellite Phenomena are very important, especially since the Observatorio do Valongo in Brazil is depending on us.

A startling fact has been deduced from your observations, as is shown in the following section. Comments and further observations are invited.

CALLISTO AND THE SOUTH EQUATORIAL BELT OF JUPITER

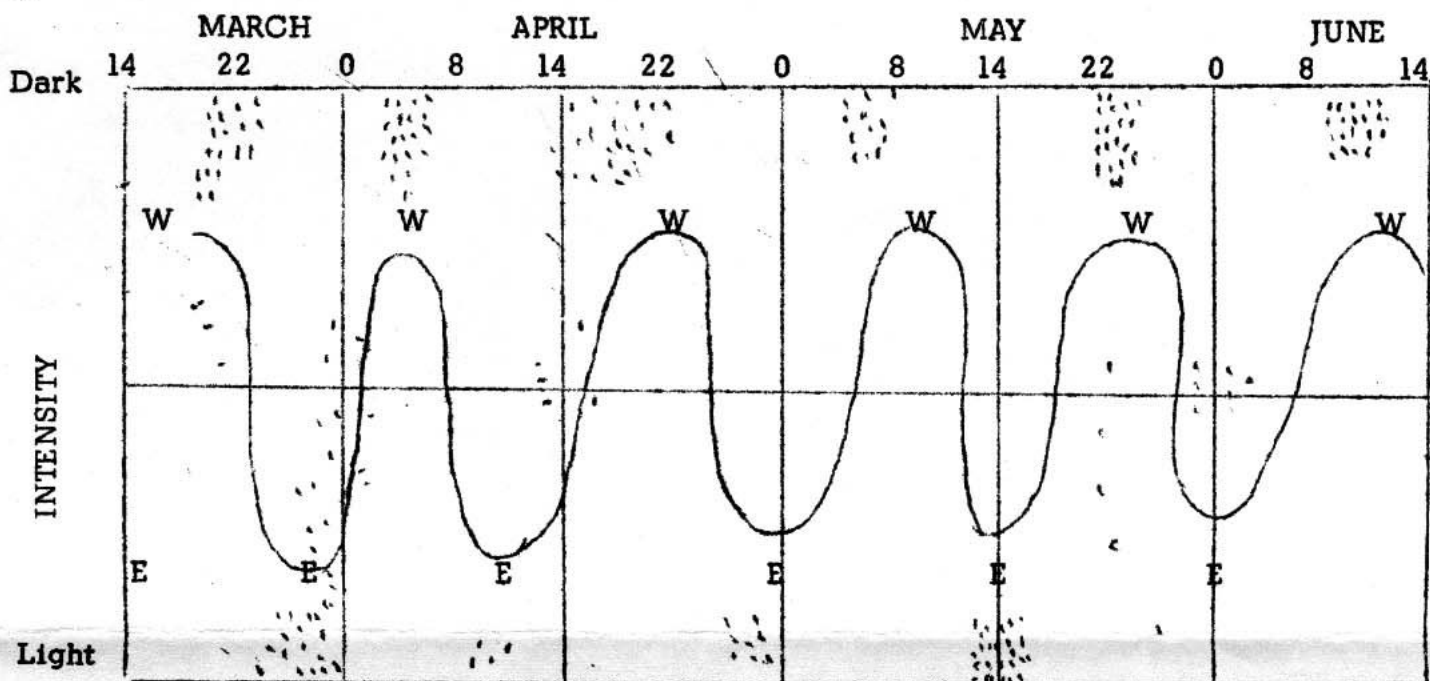
During the first half of 1969 much attention was given to Jupiter by the observers of the Planetary Section. In response to these Bulletins several hundred drawings were submitted - by Barry Sherman (Hamilton), D.R. Moore (Edmonton), Tom Tothill (Ottawa), George Haeckel (Edmonton), John Garden (Hamilton), Richard Newman (Edmonton), John Calder (Galt, Ontario), Paul Deans (Edmonton) and myself. A result of the analysis of these drawings is that there appears to be a correlation between the intensity of the South Equatorial Belt of Jupiter and the position of the satellite Callisto.

On certain drawings of the planet, the S.E.B. was very dark. Sometimes it was shown as being split into two dark components and, in other drawings it was either very faint or missing altogether. The co-ordinator arranged these drawings in chronological order with a view to determining when the Belt was visible and when it could not be seen. It was amazing to discover that the Belt varied with a period of 16 days. This is very nearly the orbital period of Callisto (16 days, 16 hours, 32 minutes) given in the OBSERVER'S HANDBOOK.

The elongations of Callisto and the intensity estimates were formed into the diagram which follows. Each dot on the diagram indicates an observation. Lighter intensities are at the bottom and darker ones at the top. The curve represents the position of Callisto.

It can readily be seen that the Belt was darkest when Callisto was at Western elongation. It was characteristic of the Belt to darken gradually, split, and then fade rapidly as the elongation passed.

Is this a coincidence? If so, it is an amazing one! It deserves the attention of all members of the Section, professional and amateur alike.



W = Western Elongation  
E = Eastern Elongation

Western Elongations:    March 17  
                                  April 2  
                                  April 19  
                                  May 5  
                                  May 22  
                                  June 8

Eastern Elongations:    March 25  
                                  April 10  
                                  April 27  
                                  May 13  
                                  May 30

References: SKY AND TELESCOPE, Vol.37  
No.3 (March 1969) page 201  
No.4 (April 1969) page 265  
No.5 (May 1969) page 333  
No.6 (June 1969) page 401

#### THE LAST WORD

Certainly, the foregoing shows that valuable work can be done by the fellow with the modest instrument; most of the observations were made with 4- and 6-inch telescopes.

We trust that each Centre now has an observing group and will appoint someone to submit observations on a regular basis. (They will be returned promptly after being copied.) As only three Centres have NOT yet been heard from, it appears that our program will bear results soon. (Is your Centre one of the silent ones?)

NOTE: To Centres in Ontario and Quebec - I am prepared to visit each of you for a weekend and give a talk on observing or give tips on how and why we should observe. Just write or call!

Kenneth E. Chilton,  
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