

R E G U L U S

THE NEWSLETTER OF THE

ROYAL ASTRONOMICAL SOCIETY OF CANADA - KINGSTON CENTRE

OCTOBER, 1980

TUCSON REPORT

(Editor's Note: The following article recently arrived via Special Delivery from Tucson, Arizona. With it, David Levy sent along a very detailed and extremely precise report of his Observations of Messier Objects. The observations were carried out at ten different locations and originally done between August 1962 and May 1967. Like other dedicated observers--and David is among the finest anywhere, as his 1980 Chant Medal testifies--he has returned many, many times to these outstanding deep sky objects. In return for such a fine report which is complete with his personal impressions on first seeing the objects, our centre approves his nomination for the Society's Messier Certificate and we hope that David will be among the first to receive this new award.

Since this report comes from a member of whom we are very proud, and since I hope it is a herald of numerous reports yet to come from Arizona, I want to put it first in our October newsletter. I also hope it serves as an example to those who have not yet written for the newsletter. I would appreciate receiving at any time a personal report of your observations or activities.)

I've just received a letter from Glenn Chaple, a contributing editor for Star and Sky Magazine. Noting the good feeling I have had for Canadian amateur astronomers and the RASC, he asked if I didn't feel a bit uneasy about leaving them and setting up shop in Tucson. My answer was a definite yes; I have made many friends in Canada, especially in Kingston, and I do miss all of them. On the other hand, Tucson is where the clear skies--and the astronomers--are, and my astronomical life is very full here.

The day I returned, I got a call from the planetarium. "Did you know that March 1981 marks the 200th anniversary of the discovery of Uranus?" "Oh yes," I answered. That will be quite an event.

"Well, we're planning a major lecture on Herschel, his life, his astronomy, his music--to be given as part of our "Eyes on the Universe" series.

"Hey, that sounds really interesting! I think I'd want to attend that lecture!"

"Uh, well, David, we're sort of hoping that you'd do a bit more than just attend the lecture..."

Anyway, you're all invited to the Flandrau, on March 13, 1981, (or thereabouts) to hear my lecture on Herschel!

The sky this September has been very good and dark, although we had one very bad thunderstorm. I did observe the recent and very unusual slow rise of SS Cygni to slightly below maximum. For the first time I saw the star actually decline a bit during its general rise.

And writing about variables brings this announcement to mind: we have been very fortunate in being able to land the AAVSO spring meeting in Tucson! There will be Kitt Peak and MMT tours, hopefully a lecture at the planetarium, business meetings, and scientific sessions. In addition there will be a night of observing--the whole group is being invited to David Levy's "Home for Wayward Telescopes" for what we hope will be the best AAVSO group observing session in quite some time.

After all this excitement, I shall end with this thought: since Tucson boasts such fine weather, why are more comet and nova discoveries (or any such discoveries) not made by amateurs here? England, with its terrible weather, boasts a better record. The answer lies not in the weather. If they have the guts and perseverance to use every available good night, they can find a comet anywhere.

FOR YOUR COMPENDIUM OF ESOTERIC FACTS

Did you know that the October Draconids (the first of the two October meteor showers that we discussed at our regular meeting on Oct. 2nd) is a shower that has a very narrow stream? In fact, the stream is so narrow that the shower is listed as being above quarter strength not for several days (-for the Delta Aquarids it is 7 days and for the Perseids it is 4.6 days), but for only 0.05 days which is only slightly over one hour-one hour and twelve minutes, to be mathematically precise.

What this means is that unless the precise time of maximum occurs during the hours of darkness there is not very much chance of seeing many of these meteors. That was probably the case this year since the predicted peak was on October 9th at 21^{hr} U.T. (or 5 p.m. E.D.T.). The skies over most of North America would have been still too bright to see most of the meteors even on the east coast and even at the time when the shower would have been reduced to less than a quarter of its normal strength.

This strange meteor shower is unusual for still another reason. Though narrow and short lived, the showers in some years can become intense swarms and even storms with thousands of meteors recorded in an hour. In one year (1933), an incredible 30,000 per hour were recorded. Such intense showers occur when the earth passes through the stream at a time when the comet from which the shower derives has just passed, for the most intense collection of meteoric particles is found following closely behind the comet - Comet Giacobini-Zinner.

REPORTS AND OTHER ITEMS

1. Reports seem to have been few recently, bad weather for observing being one of the main reasons. My observing log for the month of September contained two entries and one of them was an afternoon observation of sunspots. On the night of October 10th-11th there was an auroral display worth watching. It seemed to have been a long time since I had seen any auroral activity above a "barely discernible" or "quite mediocre" quality. I photographed it and hope results are ready for the next meeting.
2. A number of us enjoyed an outing to the Holleford Meteorite Crater on Sunday, October 5th. It was a pleasure for me to give a "guided tour" to the new members of our Centre who joined us. We hope that those who could not make it will be able to join us for an outing to the crater or for an observing session before too long.
3. A few things to watch for in the next month or so are these:
 - 1) the Orionid meteor shower on Oct. 20th and 21st, if you can watch it in the early morning hours after the moon has set.
 - 2) the early morning sky's planetary configurations during the last few days of October and the first few days of November. The moon comes along to add to the scene on November 4th and within a matter of ten hours the moon overtakes three planets, Jupiter, Saturn, and Venus.
 - 3) the Leonid meteor shower of November 17th. Try to watch it after midnight which is the approximate setting time of the first quarter moon. This may be a very good shower.
 - 4) the mid-and-late November elongation of Mercury. This is a favorable western elongation which means that the fleeting planet may be easily seen in the morning sky. It should be interesting to watch it move near the other three planets mentioned above. Greatest elongation is on November 19th.

5) a comet or two and a bright asteroid if you have a telescope. The comets are Encke and Tuttle and you should consult page 102 of the Observer's Handbook for the ephemeris. The asteroid is Pallas and you should see pages 98, 99, and 101 for precise information on where to look. It is in the southern sky but you should be able to find it. Ceres is another asteroid that can easily be found if you wait until the constellation Gemini is well up in the sky.

4. Remember the dates of upcoming meetings:

Oct. 30, Nov. 13, Nov. 27, and Dec. 11.

The time is 8:00 p.m. and the place is Room 222, Ellis Hall.

5. Once again here is our centre's address:

R.A.S.C. - KINGSTON CENTRE,
BOX 141, STATION A,
KINGSTON, ONTARIO K7M 6R1

6. Annual dues are due. Your membership fees for 1981 may be sent or given to Jeff, our treasurer, at any time now. The regular fee is \$16.00 and for a youth membership (for a person under 18), it is \$10.00. Make cheques payable to the Kingston Centre of the R.A.S.C.

7. Our centre's annual meeting to elect our executive for next year will be on November 27th. Please come prepared to vote for the candidate of your choice or to offer your services to our centre.

CLEAR SKIES AND GOOD OBSERVING!

Lee Enright.