

the Spectrum

BUFFALO ASTRONOMICAL ASSOCIATION INC.
BUFFALO MUSEUM OF SCIENCE
HUMBOLDT PARKWAY
BUFFALO NEW YORK 14211

Editor: Ernst E. Both

NOVEMBER 1974

NOVEMBER MEETING: For our meeting on November 8, 1974 (8:00 p.m. EST, Clubroom, Buffalo Museum of Science) we welcome our own, distinguished member, Walter Semerau in an illustrated lecture on "Recent Activity on the SUN." Walter Semerau is famous, both nationally and internationally, for the sophisticated solar instruments he has designed and built, and for his study of solar activity. It is with great pleasure that we welcome our own WALTER SEMERAU. Refreshments after the meeting.

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PLEASE REMEMBER TO PAY YOUR DUES IF YOU HAVE NOT DONE SO. THIS IS THE LAST ISSUE OF THE SPECTRUM YOU WILL RECEIVE, IF YOUR DUES REMAIN UNPAID BY NOVEMBER 8. *****

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* INSTRUMENT SECTION NEWS * By Warren Steinberg

For the second meeting of the year (October 25) the instrument section again met in the Humboldt Room of the Buffalo Museum of Science. All the members who were present had a fine time testing mirrors and discussing various subjects. Bill Deazley brought his 12 $\frac{1}{2}$ -inch mirror and his well constructed, home-made caustic tester. Along the diameter of the mirror were 12 equally spaced marks from which Bill took an accurate reading from each zone. Bill states that this is the best method of testing (better than using a mask), since by his method (the Everest method) he can see the overall figure which is important in testing mirrors of short focal length (using a mask one can only see the figure at each zone).

Carl Milazzo brought in his partially polished 4 $\frac{1}{4}$ -inch mirror - being in this state, its figure is not always in fine form. Using the caustic tester on Carl's mirror, Ed Lindberg remarked that it looked like a pine tree covered by beetles (take heart, Carl, things will turn for the best). Along a more serious vein: Bob Mayer told of his extensive work on the mount of the 12 $\frac{1}{2}$ -inch Newstead reflector, particularly of his work on the rotating tube assembly.

Even though the turnout was light (PLEASE REMEMBER: THE INSTRUMENT SECTION MEETS ON THE FOURTH FRIDAY OF EVERY MONTH, AT THE MUSEUM) the meeting was very interesting and knowing that there are quite a few members interested in telescope making, we hope to see more at our November meeting (November 22, 1974, 8:00 p.m.). By the way: the Buffalo Astronomical Association is a member of the Astronomical League, and our dues paid to this group (taken out of the dues you pay to us) were raised from \$ 0.25 to \$ 0.50 per person. So please pay your dues to us that we may pay our dues to them!!!

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METEOR SHOWERS IN NOVEMBER - by DARWIN CHRISTY

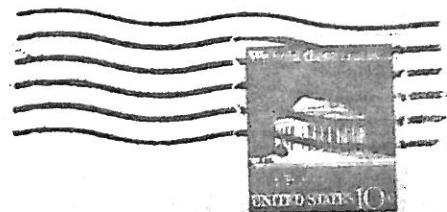
On the third of this month the November TAURIDS reach their maximum, also known as the SOUTHERN TAURIDS or TAURID-ARIETIDS. Comet Encke is responsible for this

shower which radiates from R.A. 03h 40m, decl. $+15^{\circ}$. The trails are white, of medium length, and tend to occur in bunches of 3 to 4 at a time, up to 15 per hour. A second TAURID shower occurs on the 10th (known as the NORTHERN TAURIDS) from a radiant at R.A. 03h 50 m, decl. $+22^{\circ}$. This shower produces only about 5 per hour. On the following night (November 11) you might see the MU PEGASIDS from Comet 1819 IV. These have short, reddish streaks with an hourly count of about 7. On the 12th the ARIETID shower occurs with an hourly count of about 12 with a radiant not well pin-pointed.

Comet Biela (1826) is responsible for the BIELIDS on November 14. The duration of this shower is only about 5 hours. This might be a spectacular event from around 5 a.m. to dawn. In 1877 and again in 1885 about 10,000 per hour could be seen, it is reported. The radiant is at R.A. 02h 45m, decl. $+44^{\circ}$. November is the month for meteor showers because on the 16th we meet the LEONIDS (Comet Tempel, 1866 I) with a period of about 33 years. The number of meteors visible per hour during an off-year is about 20, with deep bluish, long to very long streaks, often brighter than magnitude 3.5; the radiant is at R.A. 10h 00m, decl. $+22^{\circ}$. Spectacular displays occurred in 1799, 1833, and 1866 - thereafter such displays did not recur until 1965 (the orbit of this shower had been perturbed so that the Earth did not approach the major concentration of it) which, unfortunately, was clouded out in Buffalo, but Texas reported an estimated 100,000 observed from aircraft flying above the clouds.

The month is rounded out by the ANDROMEDIDS on the 28th, resulting from Comet Biela, 1852 III, with the radiant at R.A. 01h 40m, decl. $+45^{\circ}$. These are very similar to the BIELIDS on the 14th. It might be nice to hear from some of our members about their experiences in observing meteor showers.

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Ed. Note: We are still working on a new format for The Spectrum, which we finally hope to unveil with the December-January issue. If you have any suggestions, let us know.
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