**R E G U L U S**

**THE NEWSLETTER OF THE**
**ROYAL ASTRONOMICAL SOCIETY OF CANADA -- KINGSTON CENTRE**

**MAY, JUNE, 1988**

## THE FOURTH COMET LEVY HAS BEEN DISCOVERED - 1988e

David Levy has done it again! He discovered his fourth comet (the fifth one discovered in the current year) on the morning of March 19, 1988. His discovery of a third comet in less than fifteen months makes him currently the most prolific comet disccoverer on the face of the planet.

At about 4:00 a.m. local time as David was scanning in the northern part of the constellation Pegasus, he spotted a faint nebulous object at about 11th magnitude. His curiosity was aroused and he noted its position very precisely at 5:00 a.m. The following morning it was difficult to detect because it had moved, and it happened to be located precisely over a star. Again its position was noted. David's curiosity was further aroused. By the third morning, Sunday, March 21, there was no doubt in David's mind; this was surely a comet, it had moved about the same amount as during the previous day. (The positions which David determined were so accurate on each occasion that only his positions were used when the I.A.U. Circular of announcement was published.) It was time to report the sighting. This was done and confirmation was soon received; this was surely a newly-discovered comet and it would indeed be named Comet Levy.

The I.A.U. Circular Number 4566 listed the comet as being "diffuse, (with) a coma whose diameter is 1', with a 1'.5 tail in position angle 240 degrees. Its coordinates, as noted by David, were listed as follows:

| Date (Coordinates: Epoch 1950.0) | | | | |
|---|---|---|---|---|
| (1988 U.T.) | Right Ascension | | Declination | Mag. |
| Mar. 19.5 | 21h | 30m | + 16.2 | 11. |
| Mar. 20.5 | 21 | 32.6 | + 16 48' | |
| Mar. 21.49 | 21 | 35.2 | + 17 30 | 11.6 |

At present a further set of coordinates is available (for epoch 2000.0):

| | | | | |
|---|---|---|---|---|
| Apr. 4.0 | 21 | 55 | + 24.0 | 12 |

By the time that this information is read, it will perhaps be of little use in locating the comet. For several reasons this comet will be seen by few amateurs; it is fading quite rapidly, as can be seen from the magnitudes listed above, and by the time many of them had received the information, it would be a challenge for their telescopes; it is in the morning sky which is not as well observed as the evening sky; the moon which was full in early April was another hindrance; for many of us the weather also was less than ideal.

## A SINGULAR HONOUR FOR AN AMATEUR ASTRONOMER

On March 31, I received the very good news that a minor planet had been named after one of the great comet discoverers of our time. On that day an announcement had been made that Asteroid 3673 would henceforth be called Asteroid 3573 Levy, after David Levy, a member of our Centre and discoverer of four comets. What a singular honour for an amateur astronomer. Indeed, very few asteroids bear the names of amateurs. Most of us, if asked to name one amateur whose name is attached to an asteroid would probably name only Walter Scott Houston, the patriarch of deep sky observers, and perhaps a few of us would think of Dr. J. U. Gunter, the founder of Tonight's Asteroids, which is the best known periodical devoted to the observations of asteriods.

The asteroid which we may find ourselves calling "David's Asteroid" was discovered on August 22, 1985 by Ted Bowell at the Lowell Observatory in Arizona. The citation mentions David's comet discoveries and other visual accomplishments in astronomy, his writing and teaching and dedication to young children, and his work as biographer of famous professional astronomers.

Our most hearty congratulations go out to David, on this very distinctive honour. "You are it deserving of this recognition."

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## MORE ERRORS DETECTED IN SKYATLAS 2000.0

On page 6 of the December 1982 issue of this newsletter we published a list of the errors detected to that time in **SkyAtlas 2000.0.** Recently I have been doing some observing in the region of the Virgo Cluster of Galaxies and have detected two other errors, ones that were not mentioned on that 1982 list and I have not noticed their being mentioned on any other list anywhere. Both errors are on Charts 13 and 14, and I noticed them in connection with observations of the galaxies M61 and M49.

The first error is in the naming of a galaxy found about three degrees north of M61. What is labelled as NGC4305 should be NGC4365 (What is actually NGC4305 is located about five degrees further north. It is about three minutes west of M84. This galaxy, that is, the real NGC4305 is not marked on **SkyAtlas 2000.0** at all, though it is marked on the new **Uranometria 2000.0** on Chart 193.)

The second error is also in the designation of a galaxy, this one located about a degree and a half north-northeast of M61. What is labelled NGC4266 should be labelled NGC4260. The real NGC4266 is located south-southeast of the nearby galaxy NGC4261, not north of NGC4261 as shown on Charts 13 and 14. This galaxy, that is, the real NGC4266, in not shown on **Skyatlas 2000.0** at all, but it is shown on **Uranometria 2000.0** on Charts 193 and 238.

While checking with **Uranometria 2000.0**, I also detected an omission on one of its charts. On chart 238, the galaxy NGC4303 should also have the designation M61. All other galaxies are which are Messier objecat have double designations, that is, a listing of both the NGC number and the Messier number.

This is my first and only detection of an error or omission in **Uranometria 2000.0.** I have certainly not taken the time or effort of Jim Lucyk of the London Centre who has spotted approximately twenty errors amid the hundreds of thousands of entries in this publication. The next article will reproduce his remarkable list of "error discoveries".

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## LABELLING ERRORS IN THE FIRST PRINTING OF URANOMETRIA 2000.0 VOL. 1.

by Jim Lucyk

**[Editor's Note:** Except for one omission and one small change, the following is an exact reprint of the article written by Jim Lucyk of the London Centre and appearing in the April issue of **Astronomy London.** It shows, indeed, Jim's tremendous eye for precision.]

"**Chart # 30:** NGC6424 is plotted twice. The northern designation at 17h 36m +70° is correct. Change the southern NGC6424 (close east of NGC6419) to NGC6423.

**Chart 44:** Labelled as PR 158+57.1 in Uranometria 2000.0 and listed as PK 158+37.1 in Sky Catalogue 2000.0 Vol. 2. The Sky Catalogue designation is the correct one.

**Chart # 46:** Change UGC6163 to UGC6162.

**Chart # 75:** UGC7774 is plotted twice. The object labelled UGC7774 at 12h 36.3m +44°00′ should be deleted. No object is listed at or near this position in either the UGC or CGCG.

**Chart # 93:** Change NGC942 to NGC940.

NGC1062 is labelled twice. The position of the northern designation agrees with UGC2201 at 02h 40.7m, +32°17′ (1950) mg. 15.7z. The UGC and CGCG catalogues do not assign an NGC designation to this object.

Change the southern designation of NGC1062 to NGC1060.

**Chart # 123:** NGC7264 is labelled twice. The northeastern designation is correct. Change the southwestern '7264' to NGC7263.

**Chart # 147:** Change NGCs 3789, 3793, and 3797 to 3989, 3993, and 3997 respectively.

**Chart 4 148:** NGCs 4089 and 4091 are plotted but not labelled.

**Chart # 154:** Change NGC2928 to NGC5928.

**Chart # 185:** Change NGC2516 to NGC2526

**Chart # 199:** Change NGC5989 to NGC5983.

**Chart # 228:** Change Bo13 to Bo3.
**Chart # 235:** Change UGC5740 to UGC5708
**Chart # 230:** Change UGC7345 to UGC7354
**Chart # 240:** Change NGCs 5153 aid 5154 to NGCs 5188 aid 5184 respectively.
**Chart # 250:** Change Sh2-62 to Sh2-64 as in Sky Catalogue 2000.0, Vol. 2, and the **Atlas of Galactic Nebulae, Vol. 2** by Neckel and Vehrenberg."

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## FOR YOUR COMPENDIUM OF ESOTERIC FACTS

Often, it seems, certain discoveries occur "in bunches", with several happening very close together and then there is a long period before the next one is recorded. One very fine example of this phenomenon is the case of photographic discoveries of comets by amateurs. One such event occurred in early 1975. The next such event occurred over eleven and a half years later on Hallowe'en night 1986. Almost simultaneously in fact, about twenty-four hours later the next amateur photographic discovery of a comet occurred. The October 31 discovery was that of Comet Urata-Niijima 1986o and the last one mentioned was of Comet Sorrels 1986p.

Incidentally, the name Urata is connected with another remarkable discovery. This Japanese skywatcher in 1976 became the first amateur astronomer in almost fifty years to discover an asteroid. Maybe mare than anyone alive he is proving that amateurs can still do two things that thousands of others are willing to concede to the professionals, namely the photographic discovery of comets and the discovery of asteroids.

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## REPORTS AND OTHER ITEMS

1. In the world of local observing, the big news recently surely has been the tremendous increase in solar activity with my observation entries showing many days in April when the Relative Sunspot Number exceeded 100. There was also a solar flare in mid-April which accounted for the Auroral activity in the following week. Several nights brought a northern glow to the night sky.

2. Do not forget your plans for the General Assembly in Victoria. Consult the last newsletter for more details.

3. Remember the dates for our upcoming meetings:
(MacIntosh Corry Hall at 8:00 P.M.)

May 13 Dr. Hughes from the Queen's Astronomy Department

June 19 (Something will be arranged.)

July 9 (G.A. Reports)

Aug. 12 (Summer Conferences Reports)

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Clear skies!
Good observing!

Les Enright