

THE SKY THIS MONTH

DECEMBER 2007

THE SPECTACULAR COMET HOLMES

For much of October, a very dim comet that few knew about was traveling through our skies.

On October 23, 2007, the comet suddenly increased in brightness by over 500,000 times, making it an easy naked-eye object in a matter of hours. Astronomers all over the world marveled at a spectacle that was not predicted by anyone; a fact that has made this event even more fascinating.

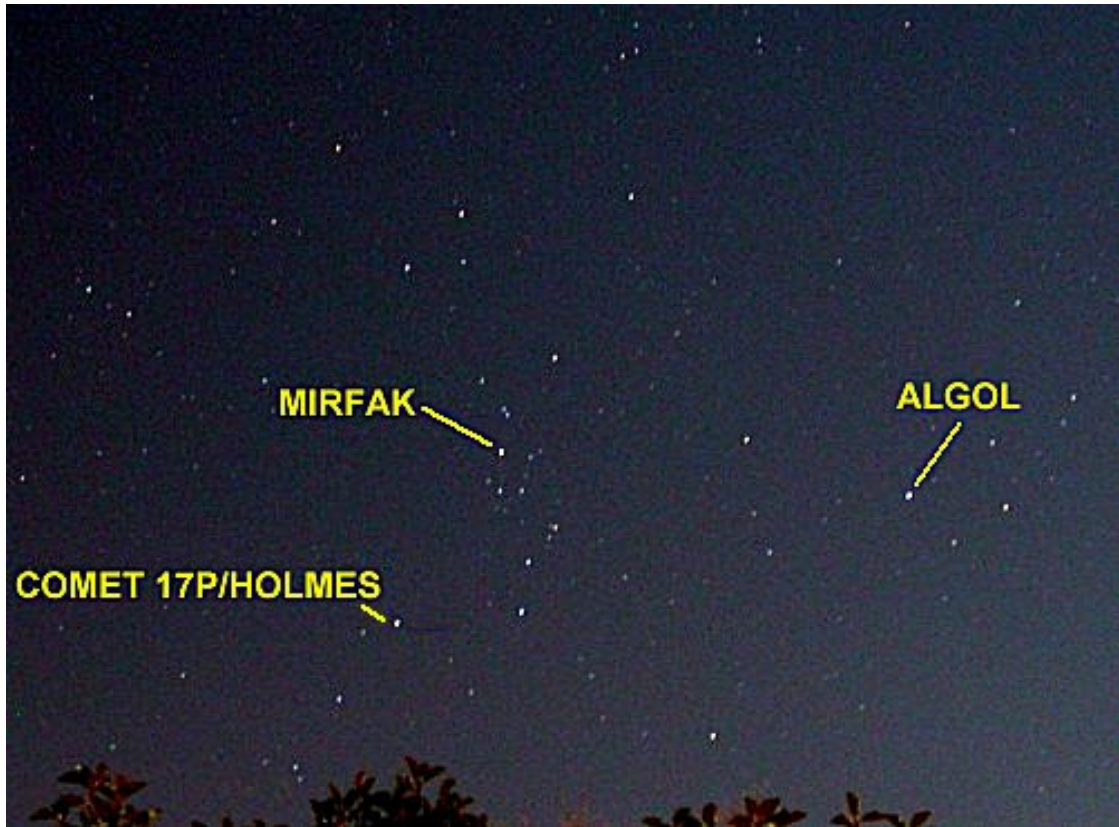
Comet Holmes was discovered by astronomer Edwin Holmes on November 6, 1892. He discovered it just when the comet brightened to naked eye visibility. So, it happened back then too! The comet brightened once again in January 1893 and faded soon after. Afterward, it was well out of reach of small telescopes until October 2007; nearly 115 years later.

The first observations of this new bright object were described as “star-like”. Since the comet had just begun its eruption, its apparent size was still tiny. The author remembers the comet looking like a large peach with an illuminated pit near the center. Over several weeks, the comet quickly grew in size until its diameter rivaled that of the Sun!

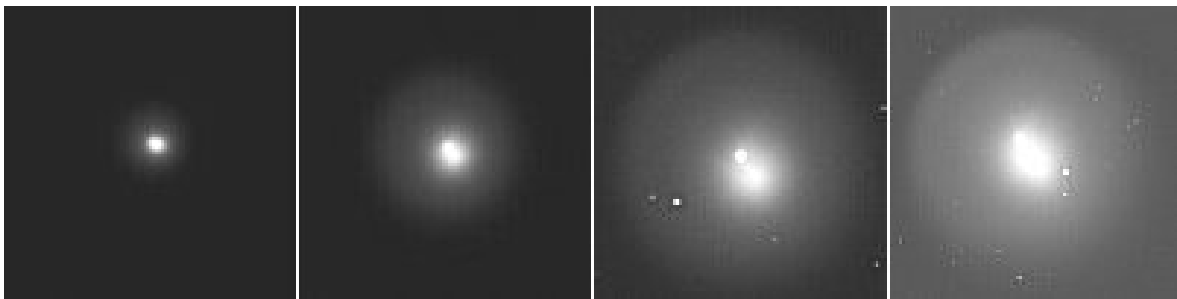
What is fascinating is that the comet brightened at a time when it was heading away from the Sun. Normally, a comet looks brighter when it gets closer to the Sun and heats up.

To this day, nobody knows just why this comet suddenly brightened. Theories abound; a collision with a meteoroid, a gas build-up inside the comet's nucleus. Whatever the reason, it is getting much more attention!

Throughout November, Comet Holmes could still be seen with the naked eye as a large fuzzy patch in the constellation Perseus. In December it will be seen to move between the stars Mirfak and Algol, the two brightest stars in Perseus. Look in your northeastern sky just after evening twilight and you should spot the small fuzzy ball of light. A pair of binoculars will suit you better, as you should see the comet's boundaries and nucleus more easily.



A new bright object appeared in Perseus on the evening of October 23rd. Two days later it became the third largest object in the constellation Perseus. Image by the author.



Comet Holmes grew from a tiny 100,000km in diameter (extreme left) to an immense 850,000km (extreme right) in just one week! By November 18th, it grew to over 2 million km in diameter; 600,000km larger than our Sun! Images by the author.



Comet 17P/Holmes is shown in a colour image taken on November 1st by the author. The comet was 240 million kilometres from the Earth and 785,000 km in diameter (half the Sun's diameter) when this image was taken.

ASTRONOMY EDUCATION EVENTS

The Mill of Kintail Conservation Area will be holding an astronomy course consisting of ten weekly classes beginning on Friday, March 28, 2008 and ending on Friday, May 30, 2008. For more information, visit www.castor2.ca/course.

Questions, comments, observations and/or images can be sent to skythismonth@castor2.ca.