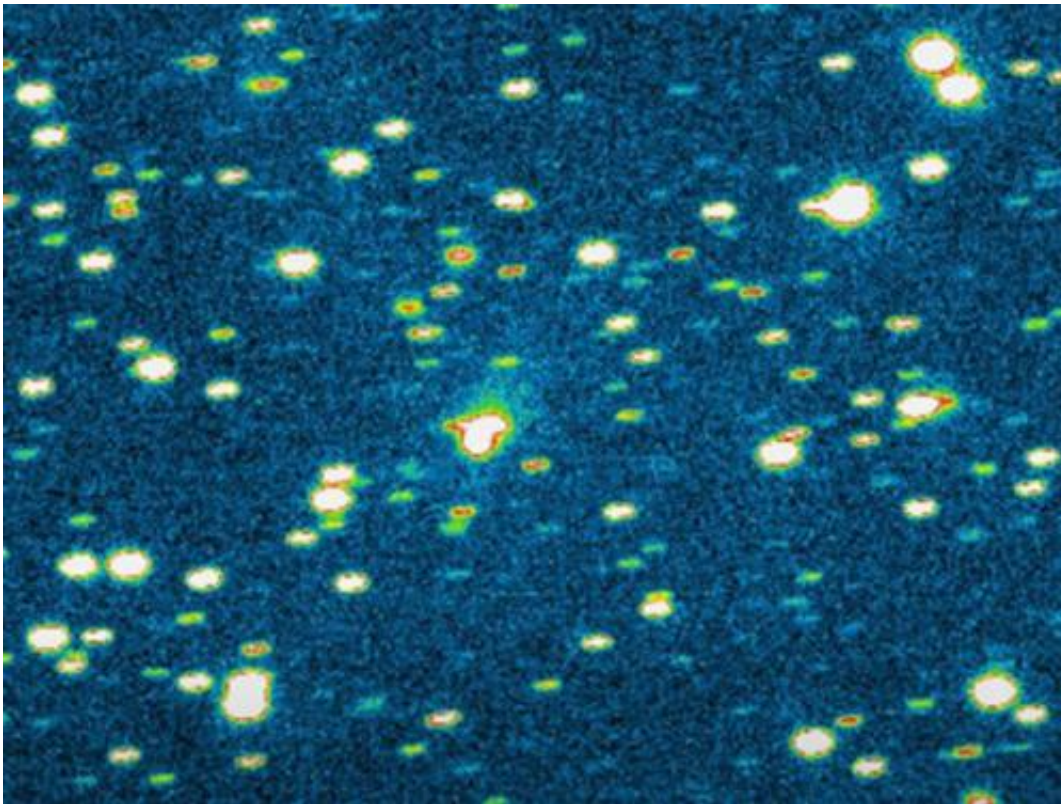


# Australian amateur Terry Lovejoy discovers new comet

August 20 2014, by Bob King

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The fuzzy object at center is new comet C/2014 Q2 (Lovejoy) discovered by Australian amateur astronomer Terry Lovejoy. Credit: Alain Maury and Joaquin Fabrega

It's confirmed! Australian amateur astronomer Terry Lovejoy just discovered his fifth comet, C/2014 Q2 (Lovejoy). He found it August 17th using a Celestron C8 fitted with a CCD camera at his roll-off roof

observatory in Brisbane, Australia.

"I take large sets of image triplets, i.e 3 images per star field and use software to find moving objects," said Lovejoy. "The software I use outputs suspects that I check manually by eye."

Most of what pops up on the camera are asteroids, known comets, or false alarms but not this time. Lovejoy's latest find is a faint, fuzzy object in the constellation Puppis in the morning sky.

Glowing a dim magnitude +15, the new comet will be a southern sky object until later this fall when it swings quickly northward soon around the time of perihelion or [closest approach](#) to the sun. Lovejoy's find needs more observations to better refine its orbit, but based on preliminary data, Maik Meyer, founder of the Comets Mailing List, calculates a January 2, 2015 perihelion.

On that date, it will be a healthy 84 million miles from the sun, but one month earlier on December 7, the [comet](#) could pass just 6.5 million miles from Earth and be well placed for viewing in amateur telescopes.

Everything's still a little up in the air right now, so these times and distances are likely to change as fresh observations pour in. Take all predictions with a major grain of salt for the moment.

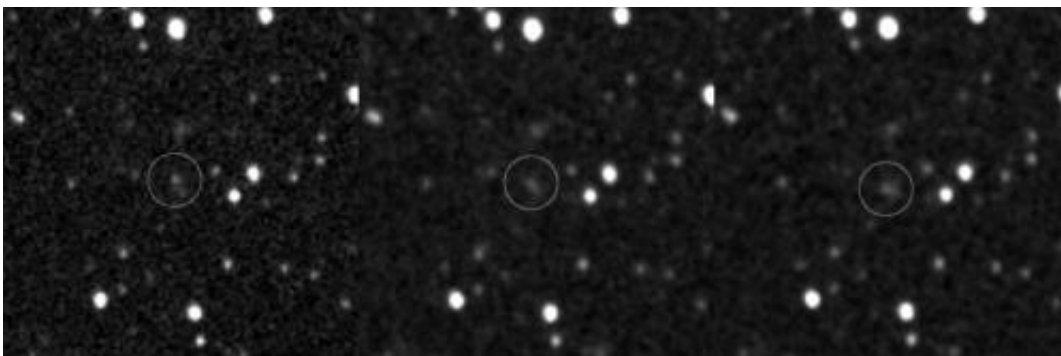
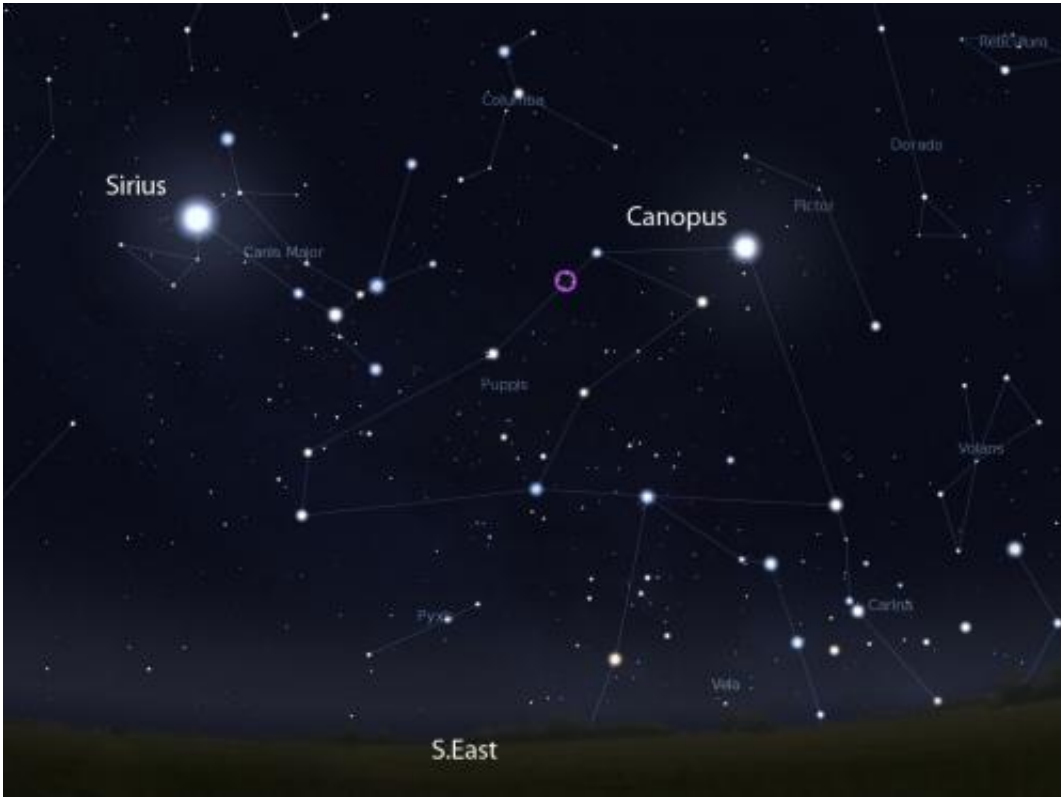


Image triplet taken by Terry Lovejoy of his comet discovery. The comet moves slightly counterclockwise around the larger fuzzy spot over the time frame.  
Credit: Terry Lovejoy

You might remember some of Terry's earlier comets. Comet Lovejoy (C/2011 W3), a Kreutz sungrazer discovered in November 2011, passed just 87,000 miles above the sun's surface. Many astronomers thought it wouldn't survive the [sun](#)'s heat, yet amazingly, although much of its nucleus burned off, enough material survived to produce a spectacular tail.

More recently, Comet Lovejoy (C/2013 R1) thrilled observers as it climbed to naked eye brightness last November, managing to do the impossible at the time and draw our eyes away from Comet ISON.



Sky as seen from central South America showing the approximate location of the new comet (purple circle) on August 19 in Puppis near the bright star Canopus. The view shows the sky facing southeast just before the start of dawn. Credit: Stellarium

The latest orbit calculation from the Minor Planet Center based on 24 observations now puts perihelion at 164.6 million miles (265 million km) on February 14, 2015. Closest approach to Earth of 93.2 million miles (150 million km) will occur in January.



Comet Lovejoy (C/2011 W3) photographed by NASA astronaut Dan Burbank, onboard the International Space Station on Dec. 22, 2011 from 250 miles up.  
Credit: NASA

\* Update: The latest orbit calculation from the Minor Planet Center based on 24 observations now puts perihelion at 164.6 million miles (265 million km) on February 14, 2015. Closest approach to Earth of 93.2 million miles (150 million km) will occur in January.

Source: [Universe Today](#)

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