## **VareseNews**

## From Wednesday night the Lovejoy comet will be visible

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The comet of Christmas 2014, the 2014 Q2 discovered last August by the Australian amateur astronomer Terry Lovejoy (his 5th discovery in a few years!) is proving to be even more promising than expected. All estimates, in fact say that on the evening of 28 December the comet has reached magnitude m = 5, becoming visible to the naked eye (remember that the magnitude limit for the naked eye is m = 6). The estimates are certain because at that time the comet was particularly observed by serious amateur astronomers all over the world while passing to less than 1 ° from the globular cluster M79 Hare (under the constellation of Orion). It was enough to use a normal pair of binoculars 10 x 50 (10 magnification and 50 mm diameter) to perceive immediately a blue-green trail as large as the full moon (the blue is due to the CO, carbon monoxide, a molecule typical to each comet, green is due to the C2 radical, diatomic carbon and to cyanogen): Piermario Ardizio and Barbara Boselli, members of the historical GAT of Tradate, inhabitants of Besozzo, made this description on Tuesday, 30 December at 23.30. Long-exposure photographs were needed to highlight even a thin multiple tails of gas 2-3° long. Virtually absent, at least so far, the dust tail. The best photographic images obtained in our country are those made by Lorenzo Comolli (GAT of Tradate, S & G Bernasconi of Saronno) around 22 on Sunday 28 from Pian dell Armà (Province of Pavia), on the occasion of a special expedition observational, organised despite the uncertain weather and the not so indifferent cold (-9 ° C peak minimum, fought with hot tea, toblerone and panettone ...).

Lorenzo used his TEC APO 140 telescope (Diameter 140 mm, 1011 mm focal

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length), a SBIG STL-11000 camera with black and white sensor and single exposure with LRGB filters (i.e. the three basic colours). An exposure time of 55 min and an accurate processing have led to the striking images, in which we can perceive at least three filamentous lines of gas and total absence of dust. The image is interesting because the plasma tail, which was almost completely 'detached' a few days before (hit by a solar flare), now is reforming well. It is a great premise for what will happen in the coming weeks when the comet will reach the minimum distance from Earth (7 January) and the Sun (30 January), while going up very quickly on the right-hand side of the constellation Orion toward the constellation of Taurus.

The most optimistic estimates say, continuing like this, the 2014 Q2 Lovejoy could

**reach a magnitude of 4 to 3.5 in the second week of January** when there will be the least disruptive effect of moonlight (the Moon is full 4 January): it will be the highlight for the observation by unaided eye and binocular. It is enough also 20- 30 seconds of fixed installation with a simple digital camera with a 50-80 mm lens and a sensitivity of 1600-3200 ASA to immortalise the emerald green crown. Obviously all of these operations should be conducted from a location free from light pollution toward the direction of the Southern sky.

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