

# \* NOVA \*

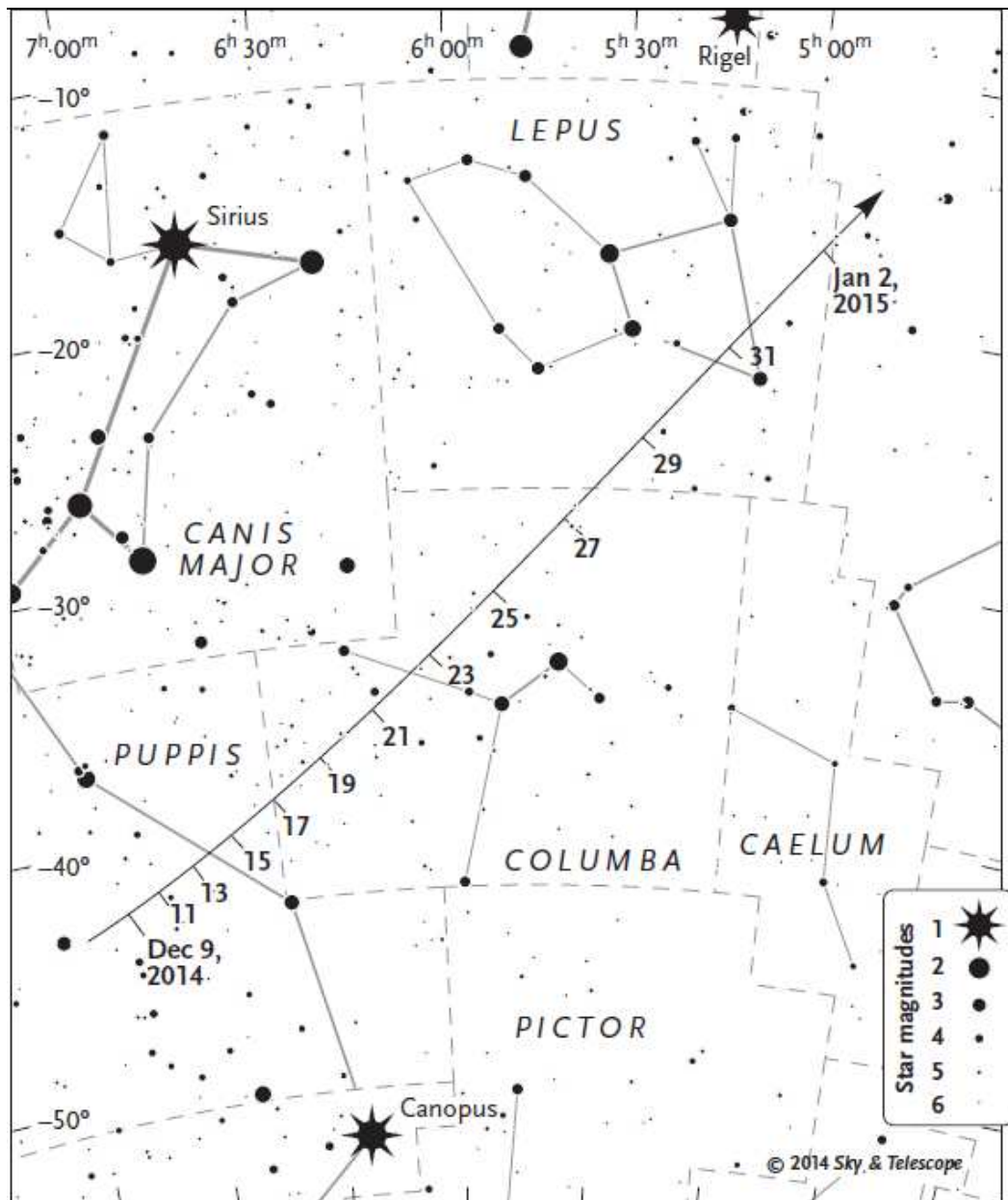
N. 755 - 21 DICEMBRE 2014

ASSOCIAZIONE ASTROFILI SEGUSINI

## COMETA C/2014 Q2 (LOVEJOY)

La cometa C/2014 Q2 (Lovejoy) è stata scoperta nell'agosto scorso, quando era di 15<sup>a</sup> magnitudine, dall'astrofilo australiano Terry Lovejoy (è la sua quinta scoperta). È una cometa di lungo periodo, con un periodo orbitale di 11.500 anni, ma che si ridurrà a circa 8.000 anni, dopo questa apparizione, a causa di perturbazioni planetarie. In questi mesi sarà osservabile la sera con un binocolo. Dovrebbe raggiungere la magnitudine 5 a fine dicembre, e forse la 4.1 a metà gennaio.

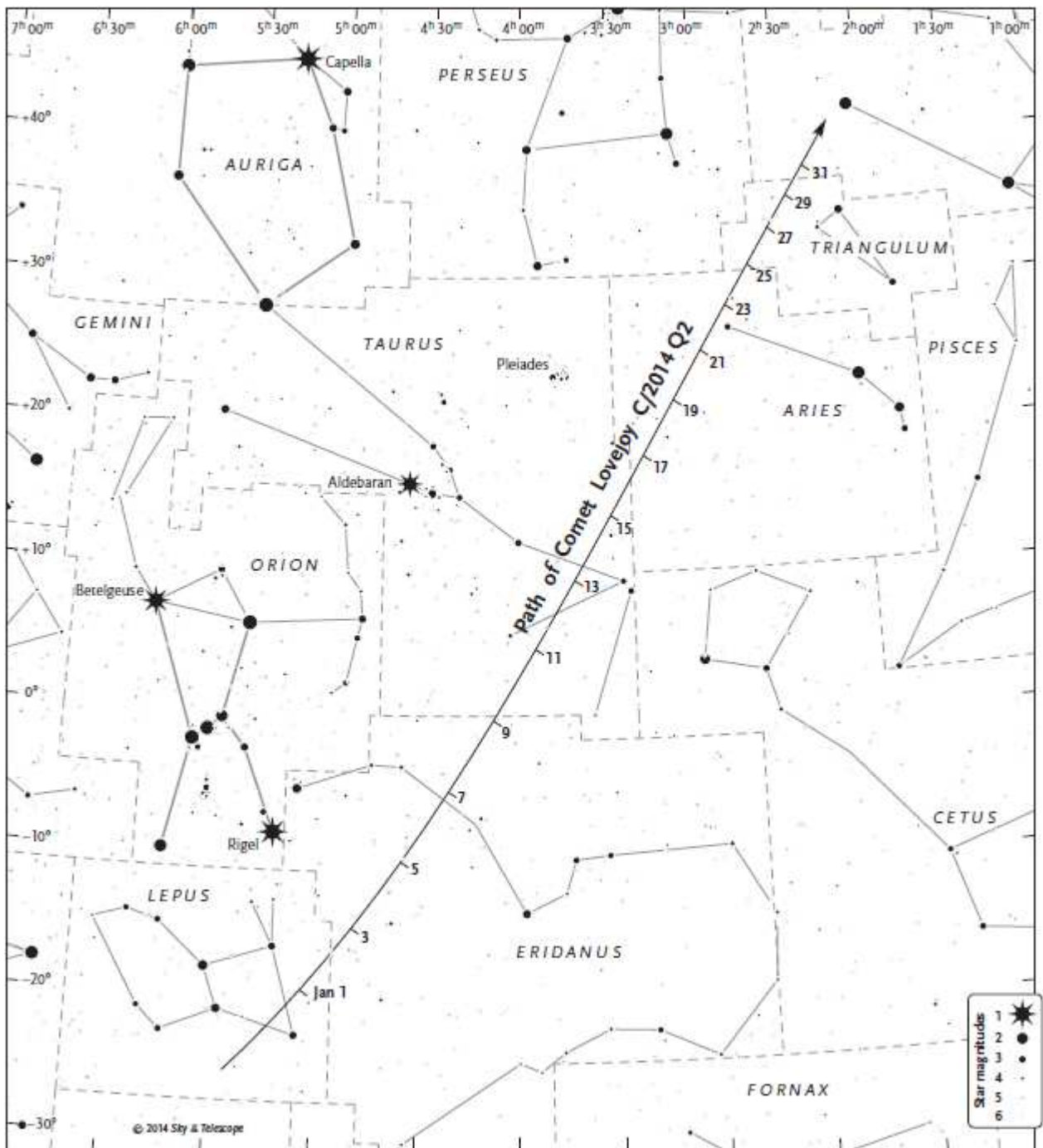
La distanza minore dalla Terra è pari alla minima marziana (circa 0.5 AU).



Percorso della cometa C/2014 Q2 (Lovejoy) nel mese di dicembre 2014. Carta tratta da Sky & Telescope:  
<http://www.skyandtelescope.com/astronomy-news/observing-news/binocular-comet-lovejoy-heading-c2014-q2-lovejoy-1211142/>

NEWSLETTER TELEMATICA DELL'A.A.S. PER SOCI E SIMPATIZZANTI - ANNO IX

[www.astrofilisusa.it](http://www.astrofilisusa.it)



Percorso della cometa C/2014 Q2 (Lovejoy) nel mese di gennaio 2015. Carta tratta da *Sky & Telescope*: <http://www.skyandtelescope.com/astronomy-news/observing-news/binocular-comet-lovejoy-heading-c2014-q2-lovejoy-1211142/>

Riportiamo, nelle pagine seguenti, le effemeridi calcolate dal JPL per il nostro *Grange Observatory* dal 28 dicembre 2014 al 29 agosto 2015.

Curva di luce e altri dati su <http://www.aerith.net/comet/catalog/2014Q2/2014Q2.html>.







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Date__(UT)__HR:MN      R.A.__(ICRF/J2000.0)_DEC Azi__(a-appr)_Elev T-mag N-mag      delta      deldot      S-O-T /r
*****
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2015-Jun-25 20:00 Cm  14 45 54.40 +76 24 58.6 0.3039 58.7832 14.83 16.62 2.48098168801548 13.6301003 75.2379 /T
2015-Jun-26 20:00 Cm  14 46 14.73 +75 53 46.9 359.8921 59.3041 14.85 16.63 2.48889710254202 13.7813115 75.4333 /T
2015-Jun-27 20:00 Cm  14 46 37.81 +75 22 33.3 359.4419 59.8208 14.88 16.64 2.49690041440364 13.9369851 75.6242 /T
2015-Jun-28 20:00 Cm  14 47 03.37 +74 51 18.3 358.9516 60.3325 14.91 16.66 2.50499412645694 14.0970114 75.8102 /T
2015-Jun-29 20:00 Cm  14 47 31.18 +74 20 02.1 358.4196 60.8386 14.93 16.67 2.51318067826918 14.2612795 75.9913 /T
2015-Jun-30 20:00 Nm  14 48 01.06 +73 48 45.1 357.8444 61.3384 14.96 16.69 2.52146244495969 14.4296754 76.1674 /T
2015-Jul-01 20:00 Nm  14 48 32.80 +73 17 27.5 357.2243 61.8311 14.98 16.70 2.52984173501299 14.6020804 76.3382 /T
2015-Jul-02 20:00 Nm  14 49 06.28 +72 46 09.6 356.5579 62.3160 15.01 16.71 2.53832078677791 14.7783684 76.5036 /T
2015-Jul-03 20:00 N  14 49 41.33 +72 14 51.6 355.8433 62.7923 15.04 16.73 2.54690176368178 14.9584041 76.6636 /T
2015-Jul-04 20:00 N  14 50 17.85 +71 43 34.0 355.0792 63.2589 15.06 16.74 2.55558674861331 15.1420419 76.8178 /T
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2015-Jul-06 20:00 N  14 51 34.88 +70 41 00.5 353.3964 64.1601 15.11 16.77 2.57327663835150 15.5194979 77.1090 /T
2015-Jul-07 20:00 N  14 52 15.21 +70 09 45.3 352.4750 64.5926 15.14 16.78 2.58228526013679 15.7129874 77.2457 /T
2015-Jul-08 20:00 N  14 52 56.65 +69 38 31.4 351.4988 65.0118 15.16 16.80 2.59140531868970 15.9094272 77.3762 /T
2015-Jul-09 20:00 N  14 53 39.13 +69 07 19.1 350.4668 65.4166 15.19 16.81 2.60063843238045 16.1086487 77.5006 /T
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2015-Jul-14 20:00 N  14 57 25.36 +66 31 52.6 344.4572 67.1862 15.32 16.88 2.64854981775403 17.1407400 78.0259 /T
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2015-Jul-18 20:00 Nm  15 00 40.29 +64 28 31.7 338.6700 68.2287 15.42 16.94 2.68904464893072 18.0003227 78.3258 /T
2015-Jul-19 20:00 Nm  15 01 30.66 +63 57 52.4 337.1037 68.4283 15.45 16.95 2.69947701699343 18.2187195 78.3834 /T
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2015-Jul-22 20:00 Nm  15 04 05.18 +62 26 25.6 332.1785 68.8656 15.52 17.00 2.73152579908587 18.8800991 78.5141 /T
2015-Jul-23 20:00 Nm  15 04 57.74 +61 56 08.0 330.4780 68.9549 15.55 17.01 2.74246096851344 19.1021720 78.5433 /T
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2015-Jul-25 20:00 Nm  15 06 44.29 +60 55 51.2 327.0232 69.0456 15.60 17.04 2.76471190625357 19.5479608 78.5803 /T
2015-Jul-26 20:00 Nm  15 07 38.24 +60 25 52.7 325.2815 69.0464 15.63 17.06 2.77602816932039 19.7714371 78.5878 /T
2015-Jul-27 20:00 Nm  15 08 32.61 +59 56 01.1 323.5389 69.0171 15.65 17.07 2.78747184872911 19.9951535 78.5881 /T
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2015-Aug-01 20:00 Nm  15 13 10.16 +57 28 34.0 315.0322 68.4272 15.78 17.14 2.846660258301944 21.1137135 78.4799 /T
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2015-Aug-05 20:00 N  15 16 58.19 +55 33 01.9 308.7970 67.4538 15.88 17.20 2.89619280637733 22.0006054 78.2614 /T
2015-Aug-06 20:00 N  15 17 55.96 +55 04 30.7 307.3511 67.1473 15.91 17.22 2.90890451810082 22.2197599 78.1886 /T
2015-Aug-07 20:00 N  15 18 54.01 +54 36 08.6 305.9553 66.8176 15.94 17.23 2.92174051809225 22.4375046 78.1085 /T
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2015-Aug-10 20:00 A  15 21 49.84 +53 11 58.8 302.0821 65.6992 16.01 17.28 2.96098502716173 23.0805721 77.8254 /T
2015-Aug-11 20:00 A  15 22 48.99 +52 44 15.1 300.8978 65.2868 16.04 17.29 2.97430849873783 23.2910277 77.7169 /T
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2015-Aug-14 20:00 A  15 25 47.95 +51 22 04.8 297.6636 63.9453 16.11 17.34 3.01498771882646 23.9088514 77.3498 /T
2015-Aug-15 20:00 A  15 26 48.09 +50 55 02.4 296.6893 63.4667 16.14 17.35 3.02877919159840 24.1099068 77.2138 /T
2015-Aug-16 20:00 A  15 27 48.45 +50 28 10.6 295.7653 62.9738 16.16 17.37 3.04268411361180 24.3083554 77.0711 /T
2015-Aug-17 20:00 A  15 28 49.04 +50 01 29.8 294.8901 62.4676 16.19 17.38 3.05670095488328 24.5041100 76.9217 /T
2015-Aug-18 20:00 Am  15 29 49.84 +49 35 00.1 294.0624 61.9489 16.22 17.40 3.07082813780898 24.6970894 76.7658 /T
2015-Aug-19 20:00 Am  15 30 50.85 +49 08 41.5 293.2807 61.4186 16.24 17.41 3.08506404055851 24.8872184 76.6033 /T
2015-Aug-20 20:00 Am  15 31 52.06 +48 42 34.3 292.5435 60.8773 16.27 17.43 3.09940700042699 25.0744276 76.4344 /T
2015-Aug-21 20:00 Am  15 32 53.45 +48 16 38.6 291.8492 60.3258 16.29 17.44 3.11385531753908 25.2586547 76.2592 /T
2015-Aug-22 20:00 Am  15 33 55.04 +47 50 54.4 291.1963 59.7649 16.32 17.46 3.12840725929685 25.4398458 76.0778 /T
2015-Aug-23 20:00 Am  15 34 56.80 +47 25 22.0 290.5831 59.1951 16.34 17.48 3.14306106585381 25.6197577 75.8902 /T
2015-Aug-24 20:00 Am  15 35 58.73 +47 00 01.3 290.0080 58.6171 16.37 17.49 3.15781495662341 25.7929590 75.6964 /T
2015-Aug-25 20:00 Am  15 37 00.83 +46 34 52.6 289.4696 58.0314 16.39 17.51 3.17266713732380 25.9648305 75.4967 /T
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**Column meaning:**

**TIME**

Prior to 1962, times are UT1. Dates thereafter are UTC. Any 'b' symbol in the 1st-column denotes a B.C. date. First-column blank (" ") denotes an A.D. date. Calendar dates prior to 1582-Oct-15 are in the Julian calendar system. Later calendar dates are in the Gregorian system.

Time tags refer to the same instant throughout the universe, regardless of where the observer is located.

The dynamical Coordinate Time scale is used internally. It is equivalent to the current IAU definition of "TDB". Conversion between CT and the selected



non-uniform UT output scale has not been determined for UTC times after the next July or January 1st. The last known leap-second is used over any future interval.

NOTE: "n.a." in output means quantity "not available" at the print-time.

#### SOLAR PRESENCE (OBSERVING SITE)

Time tag is followed by a blank, then a solar-presence symbol:

'\*' Daylight (refracted solar upper-limb on or above apparent horizon)  
'C' Civil twilight/dawn  
'N' Nautical twilight/dawn  
'A' Astronomical twilight/dawn  
' ' Night OR geocentric ephemeris

#### LUNAR PRESENCE (OBSERVING SITE)

The solar-presence symbol is immediately followed by a lunar-presence symbol:

'm' Refracted upper-limb of Moon on or above apparent horizon  
' ' Refracted upper-limb of Moon below apparent horizon OR geocentric ephemeris

R.A.\_(ICRF/J2000.0)\_DEC =

J2000.0 astrometric right ascension and declination of target center.  
Adjusted for light-time. Units: HMS (HH MM SS.ff) and DMS (DD MM SS.f)

Azi\_(a-appr)\_Elev =

Airless apparent azimuth and elevation of target center. Adjusted for light-time, the gravitational deflection of light, stellar aberration, precession and nutation. Azimuth measured North(0) -> East(90) -> South(180) -> West(270) -> North (360). Elevation is with respect to plane perpendicular to local zenith direction. TOPOCENTRIC ONLY. Units: DEGREES

T-mag N-mag =

Comet's approximate apparent visual total magnitude ("T-mag") and nuclear magnitude ("N-mag") by following standard IAU definitions:

T-mag =  $M1 + 5 \cdot \log_{10}(\text{delta}) + k1 \cdot \log_{10}(r)$

N-mag =  $M2 + 5 \cdot \log_{10}(\text{delta}) + k2 \cdot \log_{10}(r) + \text{phcof} \cdot \text{beta}$

Units: MAGNITUDES

delta deldot =

Range ("delta") and range-rate ("delta-dot") of target center with respect to the observer at the instant light seen by the observer at print-time would have left the target center (print-time minus down-leg light-time); the distance traveled by a light ray emanating from the center of the target and recorded by the observer at print-time. "deldot" is a projection of the velocity vector along this ray, the light-time-corrected line-of-sight from the coordinate center, and indicates relative motion. A positive "deldot" means the target center is moving away from the observer (coordinate center). A negative "deldot" means the target center is moving toward the observer.

Units: AU and KM/S

S-O-T /r =

Sun-Observer-Target angle; target's apparent solar elongation seen from observer location at print-time. If negative, the target center is behind the Sun. Angular units: DEGREES.

The '/r' column is a Sun-relative code, output for observing sites with defined rotation models only.

/T indicates target trails Sun (evening sky)

/L indicates target leads Sun (morning sky)

NOTE: The S-O-T solar elongation angle is the total separation in any direction. It does not indicate the angle of Sun leading or trailing.

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