

* NOVA *

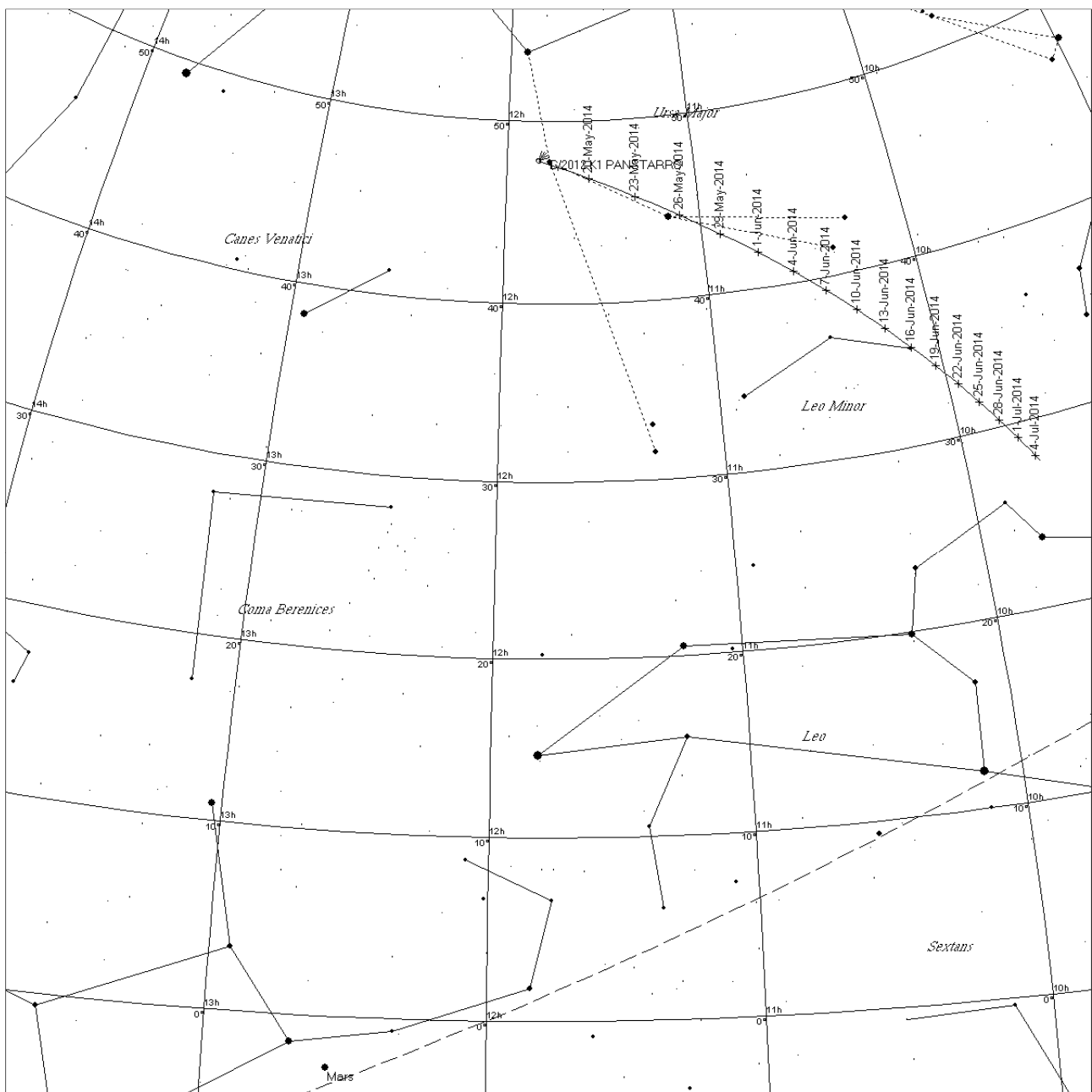
N. 641 - 20 MAGGIO 2014

ASSOCIAZIONE ASTROFILI SEGUSINI

COMETA C/2012 K1 (PAN-STARRS)

La cometa C/2012 K1 (PAN-STARRS) è stata scoperta il 17 maggio 2012 con il telescopio Pan-STARRS alle Hawaii, quando era a 8.7 UA (Unità Astronomiche) dal Sole ed aveva magnitudine 19.7. Attualmente è alla portata di piccoli telescopi. Il perielio (massimo avvicinamento al Sole) sarà il 27 agosto 2014, a 1.05 UA (circa 157 milioni di km); dal 15 settembre 2014 sarà visibile solo dall'emisfero australe.

Ecco una cartina con le posizioni della cometa in questi due mesi alle ore 22 CEST di ciascun giorno indicato. Il 26 maggio sarà a 25' a nord della stella ψ (psi) dell'Orsa Maggiore.



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*****
Ephemeris / WWW_USER Sat May 17 03:30:10 2014 Pasadena, USA / Horizons
*****
Target body name: PANSTARRS (C/2012 K1) {source: JPL#72}
Center body name: Earth (399) {source: DE-0431LE-0431}
Center-site name: Grange Observatory, Bussoleno
*****
Start time : A.D. 2014-May-16 20:00:00.0000 UT
Stop time : A.D. 2014-Jun-30 20:00:00.0000 UT
Step-size : 1440 minutes
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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
*****
$$$$$
2014-May-16 20:00 N 11 55 26.48 +48 08 01.4 329.9571 86.6030 9.89 n.a. 1.51551418589789 11.3830682 96.9931 /T
2014-May-17 20:00 N 11 49 47.73 +47 50 48.7 309.4380 85.7031 9.88 n.a. 1.52229188761856 12.1104373 95.7214 /T
2014-May-18 20:00 N 11 44 18.46 +47 32 25.0 297.3290 84.4550 9.87 n.a. 1.52947556083097 12.8072402 94.4442 /T
2014-May-19 20:00 N 11 38 58.85 +47 12 55.9 290.1134 83.0537 9.86 n.a. 1.537047482276032 13.4730913 93.1627 /T
2014-May-20 20:00 N 11 33 49.03 +46 52 26.6 285.5641 81.5839 9.85 n.a. 1.54498972789087 14.1076539 91.8783 /T
2014-May-21 20:00 N 11 28 49.03 +46 31 02.3 282.5443 80.0833 9.85 n.a. 1.55328419920304 14.7106521 90.5918 /T
2014-May-22 20:00 N 11 23 58.87 +46 08 48.2 280.4618 78.5704 9.84 n.a. 1.56191266646140 15.2818832 89.3045 /T
2014-May-23 20:00 N 11 19 18.49 +45 45 49.1 278.9884 77.0552 9.83 n.a. 1.57085681075792 15.8212264 88.0173 /T
2014-May-24 20:00 N 11 14 47.81 +45 22 09.9 277.9307 75.5435 9.83 n.a. 1.58009827358101 16.3286498 86.7309 /T
2014-May-25 20:00 N 11 10 26.69 +44 57 55.0 277.1682 74.0388 9.82 n.a. 1.58961870852562 16.8042127 85.4462 /T
2014-May-26 20:00 N 11 06 14.97 +44 33 08.8 276.6224 72.5435 9.81 n.a. 1.59939983386624 17.2480659 84.1638 /T
2014-May-27 20:00 N 11 02 12.47 +44 07 55.2 276.2403 71.0591 9.81 n.a. 1.60942348423808 17.6604486 82.8845 /T
2014-May-28 20:00 N 11 08 18.97 +43 42 18.2 275.9845 69.5865 9.80 n.a. 1.61967165958935 18.0416819 81.6087 /T
2014-May-29 20:00 N 10 54 34.23 +43 16 21.3 275.8285 68.1266 9.80 n.a. 1.63012656958129 18.3921596 80.3369 /T
2014-May-30 20:00 Nm 10 50 58.01 +42 50 07.8 275.7524 66.6797 9.79 n.a. 1.64077067192801 18.7123364 79.0696 /T
2014-May-31 20:00 Nm 10 47 30.05 +42 23 40.9 275.7415 65.2461 9.78 n.a. 1.65158670382311 19.0027160 77.8071 /T
2014-Jun-01 20:00 Nm 10 44 10.08 +41 57 03.3 275.7843 63.8261 9.78 n.a. 1.66255770643686 19.2638393 76.5497 /T
2014-Jun-02 20:00 Nm 10 40 57.84 +41 30 17.7 275.8721 62.4196 9.77 n.a. 1.67366704324126 19.4962746 75.2978 /T
2014-Jun-03 20:00 Nm 10 37 53.05 +41 03 26.5 275.9979 61.0268 9.77 n.a. 1.68489841343738 19.7006108 74.0514 /T
2014-Jun-04 20:00 Nm 10 34 55.44 +40 36 31.9 276.1561 59.6474 9.76 n.a. 1.69623586195159 19.8774519 72.8108 /T
2014-Jun-05 20:00 Nm 10 32 04.74 +40 09 35.8 276.3421 58.2815 9.75 n.a. 1.70766378736572 20.0274153 71.5762 /T
2014-Jun-06 20:00 Nm 10 29 20.67 +39 42 40.1 276.5524 56.9288 9.75 n.a. 1.71916694881190 20.1511299 70.3475 /T
2014-Jun-07 20:00 Nm 10 26 42.98 +39 15 46.3 276.7839 55.5893 9.74 n.a. 1.73073047232596 20.2492354 69.1250 /T
2014-Jun-08 20:00 Nm 10 24 11.40 +38 48 55.9 277.0342 54.2627 9.74 n.a. 1.74233985639033 20.3223802 67.9086 /T
2014-Jun-09 20:00 Nm 10 21 45.69 +38 22 10.2 277.3010 52.9488 9.73 n.a. 1.75398097538047 20.3712157 66.6983 /T
2014-Jun-10 20:00 Nm 10 19 25.59 +37 55 30.2 277.5826 51.6474 9.72 n.a. 1.76564007844478 20.3963859 65.4942 /T
2014-Jun-11 20:00 Nm 10 17 10.87 +37 28 57.1 277.8776 50.3582 9.72 n.a. 1.77730378037207 20.3985098 64.2962 /T
2014-Jun-12 20:00 Nm 10 15 01.30 +37 02 31.6 278.1847 49.0810 9.71 n.a. 1.78895904100154 20.3781598 63.1042 /T
2014-Jun-13 20:00 Nm 10 12 56.66 +36 36 14.5 278.5027 47.8156 9.70 n.a. 1.80059313161494 20.3358398 61.9182 /T
2014-Jun-14 20:00 N 10 10 56.73 +36 10 06.4 278.8309 46.5617 9.69 n.a. 1.81219359072625 20.2719714 60.7380 /T
2014-Jun-15 20:00 N 10 09 01.32 +35 44 07.9 279.1683 45.3191 9.69 n.a. 1.82374817637391 20.1868964 59.5637 /T
2014-Jun-16 20:00 N 10 07 10.21 +35 18 19.4 279.5142 44.0875 9.68 n.a. 1.83524482461259 20.0808952 58.3951 /T
2014-Jun-17 20:00 N 10 05 23.24 +34 52 41.3 279.8682 42.8666 9.67 n.a. 1.84667162230003 19.9542165 57.2321 /T
2014-Jun-18 20:00 N 10 03 40.21 +34 27 13.9 280.2296 41.6562 9.66 n.a. 1.85801679718198 19.8071059 56.0745 /T
2014-Jun-19 20:00 N 10 02 00.95 +34 01 57.5 280.5980 40.4560 9.65 n.a. 1.86926872273294 19.6398271 54.9224 /T
2014-Jun-20 20:00 N 10 00 25.29 +33 36 52.2 280.9730 39.2658 9.64 n.a. 1.88041593215128 19.4526725 53.7755 /T
2014-Jun-21 20:00 N 09 58 53.07 +33 11 58.2 281.3543 38.0853 9.63 n.a. 1.89144713585477 19.2459655 52.6337 /T
2014-Jun-22 20:00 C 09 57 24.14 +32 47 15.6 281.7416 36.9144 9.63 n.a. 1.90235123859005 19.0200574 51.4969 /T
2014-Jun-23 20:00 C 09 55 58.35 +32 22 44.4 282.1347 35.7526 9.62 n.a. 1.91311735426803 18.7753228 50.3650 /T
2014-Jun-24 20:00 C 09 54 35.54 +31 58 24.7 282.5334 34.5998 9.61 n.a. 1.92373481799480 18.5121546 49.2378 /T
2014-Jun-25 20:00 C 09 53 15.58 +31 34 16.3 282.9375 33.4558 9.60 n.a. 1.93419319534093 18.2309597 48.1152 /T
2014-Jun-26 20:00 C 09 51 58.33 +31 10 19.3 283.3469 32.3203 9.58 n.a. 1.94448228896129 17.9321540 46.9971 /T
2014-Jun-27 20:00 C 09 50 43.67 +30 46 33.4 283.7615 31.1930 9.57 n.a. 1.95459214257663 17.6161581 45.8832 /T
2014-Jun-28 20:00 C 09 49 31.46 +30 22 58.7 284.1811 30.0737 9.56 n.a. 1.96451304230094 17.2833926 44.7736 /T
2014-Jun-29 20:00 Cm 09 48 21.59 +29 59 34.8 284.6058 28.9622 9.55 n.a. 1.97423551543916 16.9342740 43.6679 /T
2014-Jun-30 20:00 Nm 09 47 13.95 +29 36 21.7 285.0353 27.8583 9.54 n.a. 1.98375032715566 16.5692215 42.5661 /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:

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

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

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.

Computations by ...

Solar System Dynamics Group, Horizons On-Line Ephemeris System
 4800 Oak Grove Drive, Jet Propulsion Laboratory
 Pasadena, CA 91109 USA
 Information: <http://ssd.jpl.nasa.gov/>
 Connect : telnet://ssd.jpl.nasa.gov:6775 (via browser)
 telnet ssd.jpl.nasa.gov 6775 (via command-line)
 Author : Jon.Giorgini@jpl.nasa.gov

