* NOVA *

N. 911 - 8 NOVEMBRE 2015

ASSOCIAZIONE ASTROFILI SEGUSINI

COMETA CATALINA (C/2013 US10)

Scoperta il 31 ottobre 2013, quando era di 19ª magnitudine, con un telescopio da 68 cm del *Catalina Sky Survey* (CSS) in Arizona, un progetto alla ricerca di asteroidi potenzialmente pericolosi per la Terra (NEO, *Near Earth Object*). All'inizio catalogata come asteroide, è stata successivamente identificata come cometa. Sarà al perielio il 15 novembre 2015 a 0.82307 UA (circa 123 milioni di kilometri) dal Sole, con una magnitudine stimata di circa 5, visibile nelle ore prima dell'alba. La cometa diventerà circumpolare a gennaio 2016.

Altri dati e cartine per l'osservazione su:

http://www.aerith.net/comet/catalog/2013US10/2013US10.html

http://www.heavens-above.com/comet.aspx?cid=C%2F2013%20US10&

http://www.skyandtelescope.com/astronomy-news/observing-news/bright-comet-prospects-2015012815/

Ed ecco le effemeridi, calcolate dal Jet Propulsion Laboratory per il nostro Grange Obs. dal 21 novembre al 31 dicembre del corrente anno.

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*******************************************************************************
JPL/HORIZONS                 Catalina (C/2013 US10)
*******************************************************************************
Ephemeris / WWW_USER Fri Oct 30 04:16:45 2015 Pasadena, USA      / Horizons
*******************************************************************************
Target body name: Catalina (C/2013 US10)          {source: JPL#53}
Center body name: Earth (399)                     {source: DE-0431LE-0431}
Center-site name: Grange Observatory, Bussoleno
*******************************************************************************
Start time      : A.D. 2015-Nov-21 05:00:00.0000 UT
Stop  time      : A.D. 2015-Dec-31 05:00:00.0000 UT
Step-size       : 1440 minutes
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Date__(UT)__HR:MN		R.A._(ICRF/J2000.0)_DEC	Azi_(a-appr)	Elev	a-mass	mag_ex	T-mag	N-mag	delta	deldot	S-O-T /r
2015-Nov-21 05:00	A	14 20 44.58 -16 33 46.8	113.3432	-0.5451	37.565	8.964	7.66	n.a.	1.68448213276946	-22.4848468	20.1098 /L
2015-Nov-22 05:00	A	14 20 31.92 -16 04 47.9	113.7539	0.4834	27.194	6.489	7.66	n.a.	1.67139297628433	-23.4375803	21.2730 /L
2015-Nov-23 05:00	A	14 20 19.73 -15 35 23.1	114.1655	1.5155	20.361	4.859	7.65	n.a.	1.65775881693593	-24.3698250	22.4508 /L
2015-Nov-24 05:00	A	14 20 08.03 -15 05 30.9	114.5778	2.5514	15.859	3.784	7.64	n.a.	1.64359176707387	-25.2804039	23.6416 /L
2015-Nov-25 05:00	Am	14 19 56.81 -14 35 09.6	114.9906	3.5916	12.802	3.055	7.64	n.a.	1.62890459021023	-26.1682359	24.8441 /L
2015-Nov-26 05:00	Am	14 19 46.10 -14 04 17.6	115.4037	4.6364	10.642	2.540	7.63	n.a.	1.61371065487138	-27.0323023	26.0573 /L
2015-Nov-27 05:00	Am	14 19 35.89 -13 32 53.1	115.8168	5.6860	9.059	2.162	7.63	n.a.	1.59802390868760	-27.8716122	27.2804 /L
2015-Nov-28 05:00	m	14 19 26.18 -13 00 54.0	116.2298	6.7410	7.859	1.875	7.62	n.a.	1.58185887081946	-28.6851753	28.5127 /L
2015-Nov-29 05:00	m	14 19 16.98 -12 28 18.3	116.6424	7.8019	6.924	1.652	7.62	n.a.	1.56523063546050	-29.4719912	29.7539 /L
2015-Nov-30 05:00	m	14 19 08.26 -11 55 03.8	117.0543	8.8690	6.177	1.474	7.62	n.a.	1.54815487781093	-30.2310507	31.0036 /L
2015-Dec-01 05:00	m	14 19 00.03 -11 21 07.9	117.4652	9.9431	5.569	1.329	7.61	n.a.	1.53064785651304	-30.9613450	32.2618 /L
2015-Dec-02 05:00	m	14 18 52.26 -10 46 28.2	117.8749	11.0248	5.064	1.208	7.61	n.a.	1.51272641070425	-31.6618745	33.5283 /L
2015-Dec-03 05:00	m	14 18 44.94 -10 11 01.9	118.2831	12.1146	4.640	1.107	7.61	n.a.	1.49440795322720	-32.3316529	34.8032 /L
2015-Dec-04 05:00	m	14 18 38.03 -09 34 46.0	118.6894	13.2134	4.279	1.021	7.60	n.a.	1.47571046320017	-32.9697049	36.0865 /L
2015-Dec-05 05:00	m	14 18 31.51 -08 57 37.4	119.0934	14.3219	3.967	0.947	7.60	n.a.	1.45665248136436	-33.5750592	37.3785 /L
2015-Dec-06 05:00	m	14 18 25.35 -08 19 32.7	119.4948	15.4410	3.696	0.882	7.60	n.a.	1.43725311105269	-34.1467362	38.6794 /L
2015-Dec-07 05:00	m	14 18 19.51 -07 40 28.2	119.8932	16.5717	3.458	0.825	7.59	n.a.	1.41753202678903	-34.6837341	39.9896 /L
2015-Dec-08 05:00	m	14 18 13.94 -07 00 20.1	120.2880	17.7148	3.247	0.775	7.59	n.a.	1.39750949167160	-35.1850126	41.3095 /L
2015-Dec-09 05:00	m	14 18 08.61 -06 19 04.3	120.6788	18.8715	3.059	0.730	7.59	n.a.	1.37720638387541	-35.6494779	42.6396 /L
2015-Dec-10 05:00		14 18 03.45 -05 36 36.3	121.0651	20.0430	2.891	0.690	7.58	n.a.	1.35664423182262	-36.0759677	43.9803 /L
2015-Dec-11 05:00		14 17 58.42 -04 52 51.6	121.4461	21.2304	2.739	0.654	7.58	n.a.	1.33584525686098	-36.4632402	45.3324 /L
2015-Dec-12 05:00		14 17 53.45 -04 07 45.1	121.8213	22.4351	2.602	0.621	7.57	n.a.	1.31483242179455	-36.8099652	46.6964 /L
2015-Dec-13 05:00		14 17 48.47 -03 21 11.4	122.1898	23.6584	2.476	0.591	7.57	n.a.	1.29362948352067	-37.1147183	48.0731 /L
2015-Dec-14 05:00		14 17 43.42 -02 33 05.0	122.5508	24.9019	2.361	0.563	7.56	n.a.	1.27226104848629	-37.3759768	49.4632 /L
2015-Dec-15 05:00		14 17 38.22 -01 43 19.9	122.9033	26.1670	2.256	0.538	7.55	n.a.	1.25075263063807	-37.5921145	50.8676 /L
2015-Dec-16 05:00		14 17 32.79 -00 51 49.6	123.2462	27.4556	2.159	0.515	7.55	n.a.	1.22913071271095	-37.7613952	52.2871 /L
2015-Dec-17 05:00		14 17 27.04 +00 01 32.6	123.5783	28.7693	2.069	0.494	7.54	n.a.	1.20742281265535	-37.8819614	53.7227 /L
2015-Dec-18 05:00		14 17 20.87 +00 56 53.9	123.8982	30.1100	1.986	0.474	7.53	n.a.	1.18565755744067	-37.9518198	55.1754 /L
2015-Dec-19 05:00		14 17 14.19 +01 54 21.7	124.2043	31.4796	1.909	0.455	7.52	n.a.	1.16386476643635	-37.9688227	56.6462 /L
2015-Dec-20 05:00		14 17 06.88 +02 54 04.2	124.4946	32.8803	1.836	0.438	7.51	n.a.	1.14207554642296	-37.9306463	58.1361 /L
2015-Dec-21 05:00		14 16 58.83 +03 56 09.6	124.7671	34.3142	1.769	0.422	7.50	n.a.	1.12032240039496	-37.8347646	59.6464 /L
2015-Dec-22 05:00		14 16 49.91 +05 00 46.8	125.0192	35.7834	1.706	0.407	7.49	n.a.	1.09863935268956	-37.6784187	61.1780 /L
2015-Dec-23 05:00		14 16 39.98 +06 08 05.1	125.2481	37.2904	1.647	0.393	7.48	n.a.	1.07706209307351	-37.4585821	62.7322 /L
2015-Dec-24 05:00	m	14 16 28.88 +07 18 14.1	125.4502	38.8375	1.591	0.380	7.47	n.a.	1.05562814138063	-37.1719252	64.3101 /L
2015-Dec-25 05:00	m	14 16 16.46 +08 31 23.9	125.6217	40.4272	1.539	0.367	7.46	n.a.	1.03437703155326	-36.8147850	65.9129 /L
2015-Dec-26 05:00	m	14 16 02.51 +09 47 44.9	125.7576	42.0620	1.490	0.356	7.45	n.a.	1.01335050992040	-36.3831471	67.5417 /L
2015-Dec-27 05:00	m	14 15 46.83 +11 07 27.6	125.8522	43.7444	1.444	0.345	7.43	n.a.	0.99259273868456	-35.8726461	69.1974 /L
2015-Dec-28 05:00	m	14 15 29.19 +12 30 42.9	125.8985	45.4768	1.401	0.334	7.42	n.a.	0.97215049341391	-35.2785867	70.8811 /L
2015-Dec-29 05:00	m	14 15 09.33 +13 57 41.8	125.8879	47.2616	1.360	0.324	7.41	n.a.	0.95207334328521	-34.5959819	72.5935 /L
2015-Dec-30 05:00	m	14 14 46.96 +15 28 34.9	125.8100	49.1009	1.321	0.315	7.39	n.a.	0.93241380396905	-33.8196095	74.3351 /L
2015-Dec-31 05:00	m	14 14 21.75 +17 03 32.9	125.6517	50.9966	1.285	0.307	7.38	n.a.	0.91322745393085	-32.9440830	76.1062 /L

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

a-mass mag_ex=

RELATIVE optical airmass and visual magnitude extinction. Airmass is the ratio between the absolute optical airmass for the target's refracted CENTER point to the absolute optical airmass at zenith. Also output is the estimated visual magnitude extinction due to the atmosphere, as seen by the observer.
AVAILABLE ONLY FOR TOPOCENTRIC EARTH SITES WHEN THE TARGET IS ABOVE THE HORIZON
Units: None (airmass) and magnitudes (extinction).

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*log10(delta) + k1*log10(r)
N-mag = M2 + 5*log10(delta) + k2*log10(r) + phcof*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 indicates target apparent position relative to the Sun in the observer's sky, as described below:

For an observing location on the surface of a rotating body:
/T indicates target trails Sun (evening sky)
/L indicates target leads Sun (morning sky)
For an observing point not on a rotating body (such as a spacecraft):
/T indicates target trails Sun (RA_target - RA_sun < 0, 'west of Sun')
/L indicates target leads Sun (RA_target - RA_sun > 0, 'east of Sun')

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

Computations by ...

Solar System Dynamics Group, Horizons On-Line Ephemeris System
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