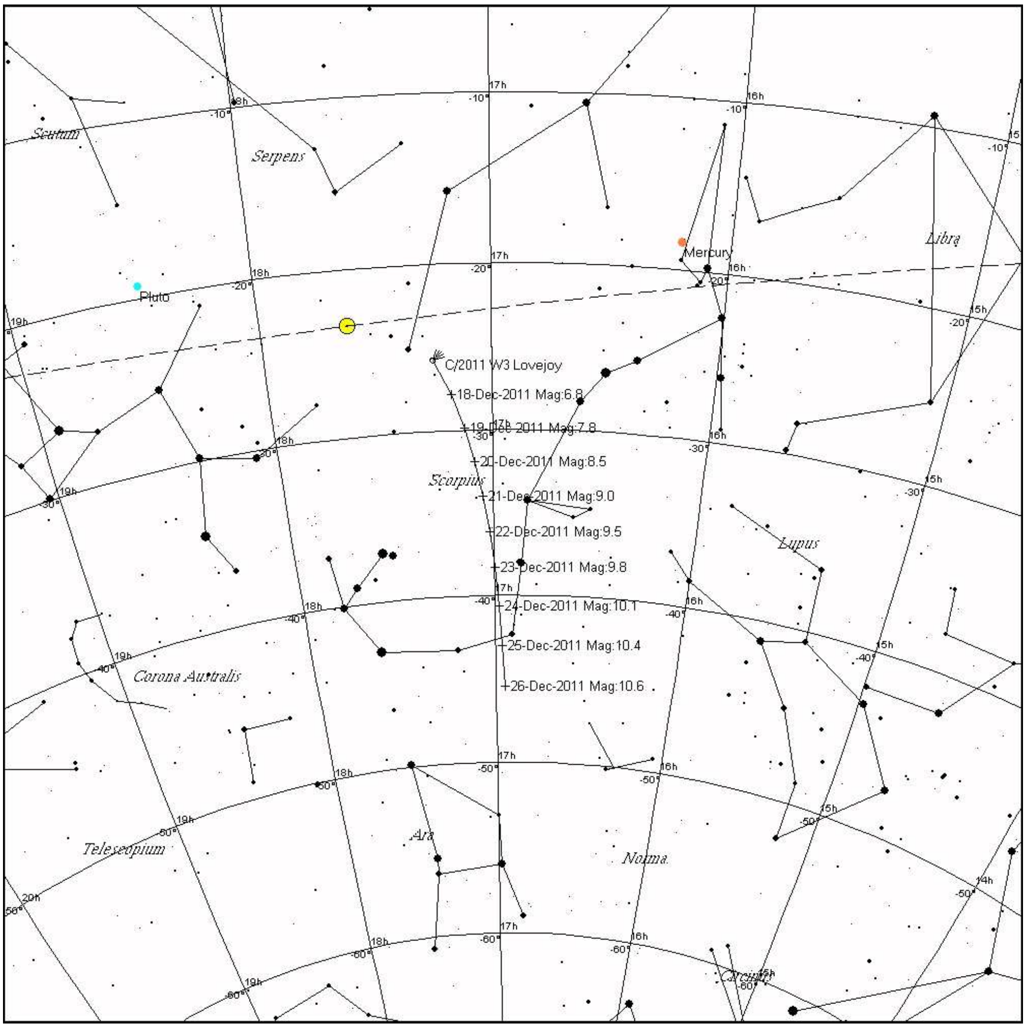
* NOVA *

N. 261 - 21 DICEMBRE 2011

ASSOCIAZIONE ASTROFILI SEGUSINI

COMETA C/2011 W3 (LOVEJOY): POSIZIONE IN CIELO

La cometa Lovejoy, cha ha avuto il primato di essere osservata da ben sei sonde spaziali (alle cinque note – v. *Nova* n. 260 – *SOHO*, *SDO*, due sonde *STEREO*, *Proba2*, si è aggiunta la *Hinode* [1] della JAXA, l'Agenzia spaziale giapponese), si sta allontanando dal Sole, nella costellazione dello Scorpione.
La cometa, fin dal giorno successivo al passaggio ravvicinato col Sole, ha sviluppato una doppia coda, una di ioni, rettilinea, e una di polvere, più pesante, lievemente curva.
Molti dati sono stati raccolti e sono all'esame degli scienziati. Karl Battams del *Naval Research Lab.*, ieri, su *Sungrazing Comets* [2], scriveva che probabilmente la Lovejoy – se non si frammenterà a breve per le verosimili gravi lesioni riportate dopo un passaggio al perielio così ravvicinato – sopravviverà in un'orbita fortemente modificata e potrebbe ritornare a farci visita tra centinaia di anni, quando forse qualcuno allora si ricorderà di queste immagini e di questa storia e magari delle persone che si sono impegnate in queste ricerche…
Abbiamo preparato, con i dati del *Minor Planet Center*, una carta che mostra la cometa (alle 06:30 TU di ogni giorno indicato) purtroppo pressoché inosservabile da noi a causa della geometria dell'incontro particolarmente sfortunata (le regioni boreali tropicali e quelle nell'emisfero australe saranno favorite).



EFFEMERIDI DI LOVEJOY (C/2011 W3)

Calcolate da *Jet Propulsion Laboratory* - Pasadena, CA per *476 Grange Observatory* - Bussoleno (TO)

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JPL/HORIZONS                      Lovejoy (C/2011 W3)           2011-Dec-20 03:39:17
*******************************************************************************
Ephemeris / WWW_USER Tue Dec 20 03:39:17 2011 Pasadena, USA      / Horizons
*******************************************************************************
Target body name: Lovejoy (C/2011 W3)           {source: JPL#24}
Center body name: Earth (399)                   {source: DE405}
Center-site name: Grange Observatory, Bussoleno
*******************************************************************************
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Date__(UT)__HR:MN		R.A._(ICRF/J2000.0)_DEC		dRA*cosD	d(DEC)/dt	T-mag	N-mag	delta	deldot	Cnst
2011-Dec-20 06:30	Nm	17 05 20.66	-32 00 03.3	-73.3180	-311.253	9.67	21.16	0.78566920631072	-55.2981997	Sco
2011-Dec-21 06:30	Nm	17 03 16.64	-34 05 27.5	-58.4782	-318.361	10.17	21.34	0.75526961628285	-50.6249585	Sco
2011-Dec-22 06:30	Nm	17 01 35.12	-36 14 12.0	-46.9652	-327.957	10.56	21.47	0.72729806371135	-46.8026650	Sco
2011-Dec-23 06:30	Nm	17 00 11.77	-38 27 08.8	-37.5390	-339.457	10.89	21.56	0.70136637089397	-43.5037635	Sco
2011-Dec-24 06:30	N	16 59 03.93	-40 44 58.7	-29.5023	-352.497	11.17	21.63	0.67723210221370	-40.5352397	Sco
2011-Dec-25 06:30	N	16 58 09.97	-43 08 15.3	-22.4228	-366.808	11.40	21.67	0.65474235937592	-37.7731169	Sco
2011-Dec-26 06:30	N	16 57 28.98	-45 37 26.3	-16.0089	-382.157	11.61	21.69	0.63380358746028	-35.1324908	Sco
2011-Dec-27 06:30	N	16 57 00.63	-48 12 53.6	-10.0468	-398.308	11.80	21.70	0.61436382760949	-32.5524444	Ara
2011-Dec-28 06:30	N	16 56 45.19	-50 54 53.7	-4.36478	-415.004	11.97	21.70	0.59640143169365	-29.9879550	Ara
2011-Dec-29 06:30	N	16 56 43.54	-53 43 36.0	1.190588	-431.953	12.12	21.69	0.57991730898452	-27.4053943	Ara
2011-Dec-30 06:30	N	16 56 57.35	-56 39 02.8	6.774714	-448.813	12.26	21.67	0.56492914741177	-24.7800127	Ara
2011-Dec-31 06:30	N	16 57 29.48	-59 41 07.5	12.56666	-465.195	12.39	21.64	0.55146672905789	-22.0945706	Ara

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Column meaning:

TIME: UTC
SOLAR PRESENCE (OBSERVING SITE)
  Time tag is followed by a blank, then a solar-presence symbol:
        'N'  Nautical twilight/dawn
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.
Corrected for light-time. Units: HMS (HH MM SS.ff) and DMS (DD MM SS.f)
  dRA*cosD d(DEC)/dt =
    The rate of change of target center apparent RA and DEC (airless).
d(RA)/dt is multiplied by the cosine of the declination.
    Units: ARCSECONDS PER HOUR
T-mag N-mag =
   Comet's approximate apparent visual total magnitude ("T-mag") and nuclear
magnitude ("N-mag") by following definitions:
   T-mag =  M1 + 5*log10(delta) + k1*log10(r)
   N-mag =  M2 + 5*log10(delta) + k2*log10(r) + phcof*beta
Units: none
  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
  Cnst =  Constellation ID; the 3-letter abbreviation for the name of the
constellation containing the target center's astrometric position,
as defined by IAU (1930) boundary delineation.  See documentation
for list of abbreviations.

Computations by ...
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     4800 Oak Grove Drive, Jet Propulsion Laboratory - Pasadena, CA 91109 USA
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[1] http://www.jaxa.jp/projects/sat/solar_b/index_e.html

[2] http://sungrazer.nrl.navy.mil/index.php?p=news/birthday_comet