* NOVA *

N. 1412 - 14 NOVEMBRE 2018

ASSOCIAZIONE ASTROFILI SEGUSINI

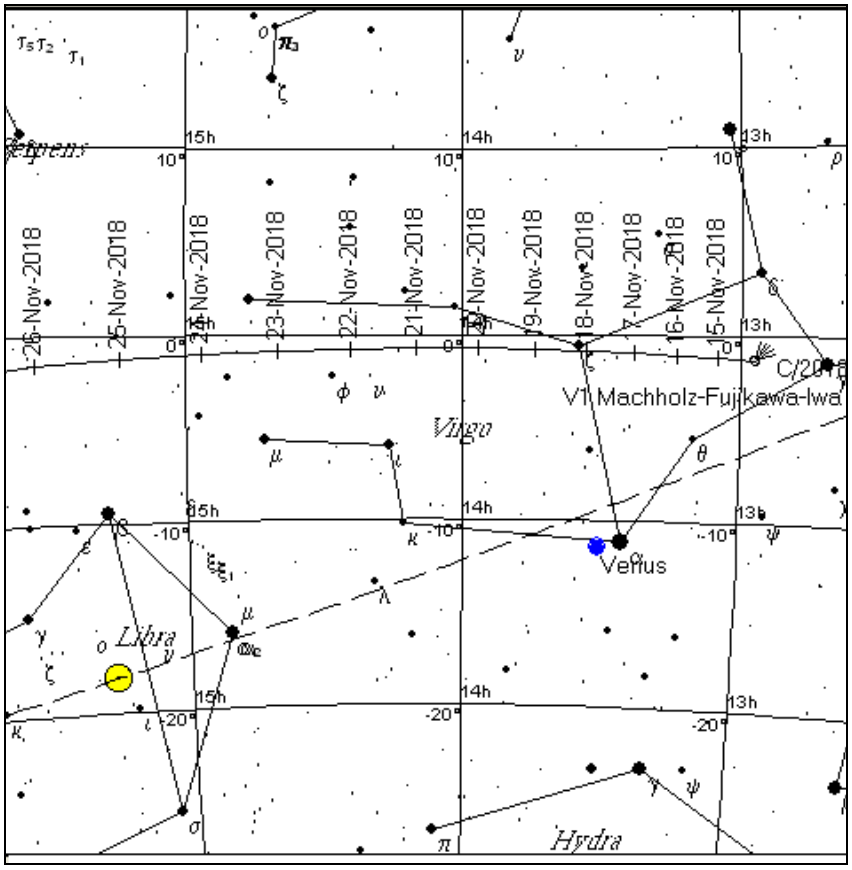
COMETA MACHHOLZ-FUJIKAWA-IWAMO (C/2018 V1)

Segnaliamo la presenza di una cometa di orbita parabolica, la C/2018 V1, di non comoda osservabilità dalla Valsusa per la scarsa altezza sull'orizzonte montano ed in orario mattutino; oltretutto il periodo di visibilità in assenza di Luna durerà pochi giorni, ed il cielo albeggiante sarà nello stato da crepuscolo civile a poi nautico.

La cometa Machholz-Fujikawa-Iwamo è una delle poche a riportare il nome di "scopritori umani", in questo periodo storico che vede la presenza di numerosi sistemi robotici di mappatura del cielo, cui è raro sfugga qualcosa.

Nelle pagine seguenti potete trovare le effemeridi calcolate da NASA JPL per il Grange Observatory di Bussoleno (codice MPC 476) per le ore 7 CET, e pubblichiamo anche una cartina con le costellazioni da usare per la visibilità con un binocolo o per una ripresa con un teleobiettivo oppure un piccolo telescopio, nel caso di un trasferimento in alta quota. Nell'orario in cui userete il secondo link, potrete anche trovare un'immagine più accattivante della posizione della C/2018 V1 tra le stelle, impostando le coordinate 45.1422 N e 7.1406 E per il Centro di Calcolo AAS.

p.p.



Cartina realizzata con il programma Skymap 2.2.9

Links:

http://spaceweather.com/archive.php?view=1&day=14&month=11&year=2018

https://theskylive.com/planetarium?obj=c2018v1

https://www.skyandtelescope.com/astronomy-news/observing-news/machholz-12th-comet/

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*******************************************************************************
Ephemeris / WWW_USER Wed Nov 14 08:51:39 2018 Pasadena, USA      / Horizons
*******************************************************************************
Target body name: Machholz-Fujikawa-Iwamo (C/2018 V1) {source: JPL#1}
Center body name: Earth (399)                    {source: DE431}
Center-site name: Grange Observatory, Bussoleno
*******************************************************************************
Start time      : A.D. 2018-Nov-14 06:00:00.0000 UT
Stop  time      : A.D. 2018-Nov-30 06:00:00.0000 UT
Step-size       : 1440 minutes
*******************************************************************************
Initial IAU76/J2000 heliocentric ecliptic TWO-BODY elements (au, days, deg.):
  EPOCH=  2458432.5 ! 2018-Nov-10.0000000 (TDB)    RMSW= n.a.
   EC= 1.                 QR= .3871887908719221   TP= 2458456.0033204206
   OM= 128.6986054097661  W= 88.7347377646537     IN= 144.0236030140085
  Equivalent ICRF heliocentric equatorial cartesian coordinates (au, au/d):
   X=-4.220917047494085E-01  Y= 5.224555799906723E-01  Z= 2.527246380556276E-01
  VX= 2.551496423306134E-02 VY=-1.019359813853330E-02 VZ= 8.352939380549294E-03
Comet physical (GM= km^3/s^2; RAD= km):
   GM= n.a.               RAD= n.a.
   M1=  13.2     M2=  15.7     k1=  10.    k2=  5.      PHCOF=  .030

*******************************************************************************************************************
 Date__(UT)__HR:MN     R.A._(ICRF/J2000.0)_DEC Azi_(a-appr)_Elev  T-mag  N-mag           delta      deldot    S-O-T /r
*******************************************************************************************************************
 2018-Nov-14 06:00 C   12 57 11.12 -01 19 53.2 127.1195  29.2554  11.13  16.83 0.95567833779030 -59.3257941  38.0946 /L
 2018-Nov-15 06:00 C   13 05 02.70 -01 12 01.0 126.1111  28.8099  10.92  16.79 0.92186758735269 -58.1501183  37.4362 /L
 2018-Nov-16 06:00 C   13 13 37.45 -01 04 33.3 124.9492  28.2473  10.71  16.75 0.88883435202050 -56.6329173  36.6370 /L
 2018-Nov-17 06:00 C   13 23 00.05 -00 57 43.9 123.6244  27.5491  10.49  16.72 0.85679407586486 -54.7112497  35.6845 /L
 2018-Nov-18 06:00 N   13 33 15.33 -00 51 50.2 122.1298  26.6950  10.27  16.69 0.82600100704144 -52.3138427  34.5679 /L
 2018-Nov-19 06:00 N   13 44 27.99 -00 47 13.5 120.4614  25.6628  10.06  16.67 0.79675269518029 -49.3623695  33.2795 /L
 2018-Nov-20 06:00 N   13 56 42.28 -00 44 19.8 118.6197  24.4303   9.84  16.66 0.76939326714610 -45.7745005  31.8171 /L
 2018-Nov-21 06:00 N   14 10 01.48 -00 43 39.6 116.6116  22.9763   9.62  16.66 0.74431423442573 -41.4695041  30.1877 /L
 2018-Nov-22 06:00 N   14 24 27.18 -00 45 47.1 114.4509  21.2834   9.42  16.67 0.72195113920545 -36.3771264  28.4121 /L
 2018-Nov-23 06:00 Nm  14 39 58.50 -00 51 19.2 112.1602  19.3412   9.22  16.69 0.70277402502687 -30.4500597  26.5308 /L
 2018-Nov-24 06:00 Nm  14 56 31.21 -01 00 52.4 109.7712  17.1499   9.03  16.72 0.68726979563810 -23.6793238  24.6106 /L
 2018-Nov-25 06:00 Nm  15 13 57.07 -01 14 59.7 107.3239  14.7241     9.    17. 0.67591535890890 -16.1102766  22.7488 /L
 2018-Nov-26 06:00 Nm  15 32 03.44 -01 34 05.3 104.8654  12.0950     9.    17. 0.66914231089263  -7.8551415  21.0733 /L
 2018-Nov-27 06:00 Nm  15 50 33.63 -01 58 21.4 102.4470   9.3102     9.    17. 0.66729666835256   0.9031318  19.7291 /L
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Column meaning:

TIME

Times PRIOR to 1962 are UT1, a mean-solar time closely related to the prior but now-deprecated GMT. Times AFTER 1962 are in UTC, the current civil or "wall-clock" time-scale. UTC is kept within 0.9 seconds of UT1 by introduction of integer leap-seconds for 1972 and later.

Conversion from the internal TDB timescale to the non-uniform UT time-scale requested for output has not been determined for UTC times after the next July or January 1st. Therefore, the last known leap-second is used as a constant over future intervals.

Time tags refer to the UT time on Earth, regardless of where the observer is located in the solar system. For example, if an observation from the surface of another body has an output time-tag of 12:31:00 UT, it refers to a time-scale conversion from TDB to UT valid at the center of the Earth, not the actual observer location elsewhere in the solar system, where clock

rates may differ slightly due to the local spacetime metric and there is no precisely defined or adopted "UT" analog.
  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.
  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 =
   Astrometric right ascension and declination of the TARGET CENTER with respect to the observing site in the coordinates of the ICRF/J2000 inertial reference frame. Compensated for down-leg light-time.
   Units: RA in hours-minutes-seconds of time   (HH MM SS.ff),
          DEC in angular degrees-minutes-seconds (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*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 the observer location at print-time. Angular units: DEGREES
    The '/r' column indicates the target's 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 (considering its rotational sense):
    /T indicates target TRAILS Sun (evening sky; rises and sets AFTER Sun)
    /L indicates target LEADS Sun (morning sky; rises and sets BEFORE Sun)
For an observing point NOT on a rotating body (such as a spacecraft), the "leading" and "trailing" condition is defined by the observer's heliocentric orbital motion: if continuing in the observer's current direction of heliocentric motion would encounter the target's apparent longitude first, followed by the Sun's, the target LEADS the Sun as seen by the observer. If the Sun's apparent longitude would be encountered first, followed by the target's, the target TRAILS the Sun.
NOTE: The S-O-T solar elongation angle is numerically the minimum separation angle of the Sun and target in the sky in any direction. It does NOT indicate the amount of separation in the leading or trailing directions, which are defined in the equator of a spherical coordinate system.

Computations by ...
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