* NOVA *

N. 2811 - 2 AGOSTO 2025

ASSOCIAZIONE ASTROFILI SEGUSINI

COMETA 3I/ATLAS - EFFEMERIDI

Ecco le effemeridi della cometa interstellare 3I/ATLAS (C/2025 N1) dal 30 settembre al 30 ottobre 2025, calcolate dal JPL - Solar System Dynamics per il Grange Observatory di Bussoleno (TO), nostro Centro di calcolo (v. anche *Nova* 2794 del 5 luglio 2025 e 2807 del 28 luglio 2025).

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*******************************************************************************
Ephemeris / WWW_USER Wed Jul 30 12:49:32 2025 Pasadena, USA      / Horizons
*******************************************************************************
Target body name: ATLAS (C/2025 N1)               {source: JPL#21}
Center body name: Earth (399)                     {source: DE441}
Center-site name: Grange Observatory, Bussoleno
*******************************************************************************
Start time      : A.D. 2025-Sep-30 23:00:00.0000 UT
Stop  time      : A.D. 2025-Oct-30 23:00:00.0000 UT
Step-size       : 1440 minutes
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Date__(UT)__HR:MN     R.A._____(ICRF)_____DEC    T-mag   N-mag             delta      deldot     S-O-T /r
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2025-Sep-30 23:00     14 25 33.32 -10 54 10.4   15.339    n.a.  2.50052210758751  -6.0603367   30.1291 /T
2025-Oct-01 23:00  m  14 23 37.38 -10 46 45.2   15.310    n.a.  2.49683032958369  -6.3661810   28.6627 /T
2025-Oct-02 23:00  m  14 21 41.79 -10 39 18.0   15.282    n.a.  2.49296213386796  -6.6848022   27.1975 /T
2025-Oct-03 23:00  m  14 19 46.50 -10 31 48.6   15.254    n.a.  2.48891035570305  -7.0156860   25.7333 /T
2025-Oct-04 23:00  m  14 17 51.45 -10 24 16.8   15.226    n.a.  2.48466811892374  -7.3583429   24.2701 /T
2025-Oct-05 23:00  m  14 15 56.61 -10 16 42.4   15.198    n.a.  2.48022881587740  -7.7123281   22.8078 /T
2025-Oct-06 23:00  m  14 14 01.91 -10 09 05.3   15.171    n.a.  2.47558607735956  -8.0772549   21.3464 /T
2025-Oct-07 23:00  m  14 12 07.30 -10 01 25.3   15.144    n.a.  2.47073373812663  -8.4527943   19.8858 /T
2025-Oct-08 23:00  m  14 10 12.74 -09 53 42.1   15.117    n.a.  2.46566580852227  -8.8386544   18.4264 /T
2025-Oct-09 23:00  m  14 08 18.16 -09 45 55.7   15.090    n.a.  2.46037646420686  -9.2345397   16.9682 /T
2025-Oct-10 23:00  m  14 06 23.53 -09 38 05.7   15.064    n.a.  2.45486006153998  -9.6401050   15.5117 /T
2025-Oct-11 23:00  m  14 04 28.78 -09 30 12.0   15.038    n.a.  2.44911117762684 -10.0549188   14.0577 /T
2025-Oct-12 23:00  m  14 02 33.87 -09 22 14.3   15.013    n.a.  2.44312466660055 -10.4784445   12.6072 /T
2025-Oct-13 23:00  m  14 00 38.74 -09 14 12.5   14.988    n.a.  2.43689572135297 -10.9100391   11.1622 /T
2025-Oct-14 23:00  m  13 58 43.32 -09 06 06.2   14.964    n.a.  2.43041993242549 -11.3489631    9.7257 /T
2025-Oct-15 23:00     13 56 47.57 -08 57 55.2   14.941    n.a.  2.42369334012929 -11.7943933    8.3033 /T
2025-Oct-16 23:00     13 54 51.42 -08 49 39.2   14.918    n.a.  2.41671247948546 -12.2454340    6.9050 /T
2025-Oct-17 23:00     13 52 54.82 -08 41 18.0   14.896    n.a.  2.40947441928469 -12.7011263    5.5510 /T
2025-Oct-18 23:00     13 50 57.71 -08 32 51.3   14.875    n.a.  2.40197679680049 -13.1604541    4.2865 /T
2025-Oct-19 23:00     13 49 00.02 -08 24 18.7   14.855    n.a.  2.39421784918839 -13.6223493    3.2232 /T
2025-Oct-20 23:00     13 47 01.69 -08 15 40.1   14.835    n.a.  2.38619644197349 -14.0856972    2.6246 /T
2025-Oct-21 23:00     13 45 02.67 -08 06 55.0   14.817    n.a.  2.37791209460541 -14.5493414    2.8122 /L
2025-Oct-22 23:00     13 43 02.88 -07 58 03.2   14.799    n.a.  2.36936500294069 -15.0120890    3.6722 /L
2025-Oct-23 23:00     13 41 02.27 -07 49 04.3   14.783    n.a.  2.36055605863577 -15.4727164    4.8642 /L
2025-Oct-24 23:00     13 39 00.77 -07 39 58.1   14.768    n.a.  2.35148686565308 -15.9299733    6.2030 /L
2025-Oct-25 23:00     13 36 58.31 -07 30 44.2   14.753    n.a.  2.34215975424079 -16.3825873    7.6148 /L
2025-Oct-26 23:00     13 34 54.83 -07 21 22.2   14.740    n.a.  2.33257779273178 -16.8292672    9.0683 /L
2025-Oct-27 23:00     13 32 50.26 -07 11 51.8   14.728    n.a.  2.32274479727400 -17.2687069   10.5489 /L
2025-Oct-28 23:00     13 30 44.53 -07 02 12.6   14.717    n.a.  2.31266533915917 -17.6995897   12.0490 /L
2025-Oct-29 23:00     13 28 37.57 -06 52 24.2   14.707    n.a.  2.30234474879957 -18.1205961   13.5646 /L
2025-Oct-30 23:00  m  13 26 29.32 -06 42 26.4   14.699    n.a.  2.29178911468530 -18.5304135   15.0931 /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 using integer leap-seconds for 1972 and later years.

Conversion from the internal Barycentric Dynamical Time (TDB) of solar system dynamics to the non-uniform civil 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-scale conversion from TDB on Earth regardless of observer location within the solar system, although clock rates may differ due to the local gravity field and no analog to "UT" may be defined for that location.
  Any 'b' symbol in the 1st-column denotes a B.C. date. First-column blank (" ") denotes an A.D. date.

CALENDAR SYSTEM
  Mixed calendar mode was active such that calendar dates after AD 1582-Oct-15 (if any) are in the modern Gregorian system. Dates prior to 1582-Oct-5 (if any)are in the Julian calendar system, which is automatically extended for dates prior to its adoption on 45-Jan-1 BC. The Julian calendar is useful for matching historical dates. The Gregorian calendar more accurately corresponds to the Earth's orbital motion and seasons. A "Gregorian-only" calendar mode is available if such physical events are the primary interest.
  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)_____DEC' =
  Astrometric right ascension and declination of the target center with respect to the observing site (coordinate origin) in the reference frame of the planetary ephemeris (ICRF). Compensated for down-leg light-time delay aberration.
  Units: RA in hours-minutes-seconds of time,   HH MM SS.ff{ffff}
         DEC in degrees-minutes-seconds of arc, sDD MN SC.f{ffff}

'T-mag   N-mag' =
  Comets' apparent visual total magnitude ("T-mag") and nuclear magnitude ("N-mag") using the standard IAU model:
  T-mag= M1 + 5*log10(delta) + k1*log10(r)
  N-mag= M2 + 5*log10(delta) + k2*log10(r) + phcof*beta
  Units: MAGNITUDES

'delta   deldot' =
  Apparent range ("delta", light-time aberrated) and range-rate ("delta-dot") of the target center relative to the observer. A positive "deldot" means the target center is moving away from the observer, negative indicates movement toward the observer. Units: AU and KM/S

'S-O-T /r' =
  Sun-Observer-Target apparent SOLAR ELONGATION ANGLE seen from the observers' location at print-time.
  The '/r' column provides a code indicating the targets' apparent position relative to the Sun in the observers' sky, as described below:

  Case A: For an observing location on the surface of a rotating body, that body rotational sense is considered:
    /T indicates target TRAILS Sun   (evening sky: rises and sets AFTER Sun)
    /L indicates target LEADS Sun   (morning sky: rises and sets BEFORE Sun)

  Case B: For an observing point that does not have a rotational model (such as a spacecraft), the "leading" and "trailing" condition is defined by the observers' heliocentric ORBITAL motion:
    * If continuing in the observers' current direction of heliocentric motion would encounter the targets' 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 targets', the target TRAILS the Sun.
  Two other codes can be output:
    /* indicates observer is Sun-centered   (undefined)
    /? Target is aligned with Sun center   (no lead or trail)

  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 would be defined along the equator of a spherical coordinate system.
  Units: DEGREES

Computations by ...
    Solar System Dynamics Group, Horizons On-Line Ephemeris System 4800 Oak Grove Drive, Jet Propulsion Laboratory Pasadena, CA 91109 USA
    General site: https://ssd.jpl.nasa.gov/
    Mailing list: https://ssd.jpl.nasa.gov/email_list.html
    System news : https://ssd.jpl.nasa.gov/horizons/news.html
    User Guide : https://ssd.jpl.nasa.gov/horizons/manual.html
    Connect   : browser   https://ssd.jpl.nasa.gov/horizons/app.html#/x
                  API   https://ssd-api.jpl.nasa.gov/doc/horizons.html
                  command-line   telnet ssd.jpl.nasa.gov 6775
                  e-mail/batch   https://ssd.jpl.nasa.gov/ftp/ssd/horizons_batch.txt
                  scripts   https://ssd.jpl.nasa.gov/ftp/ssd/SCRIPTS
    Author   : Jon.D.Giorgini@jpl.nasa.gov

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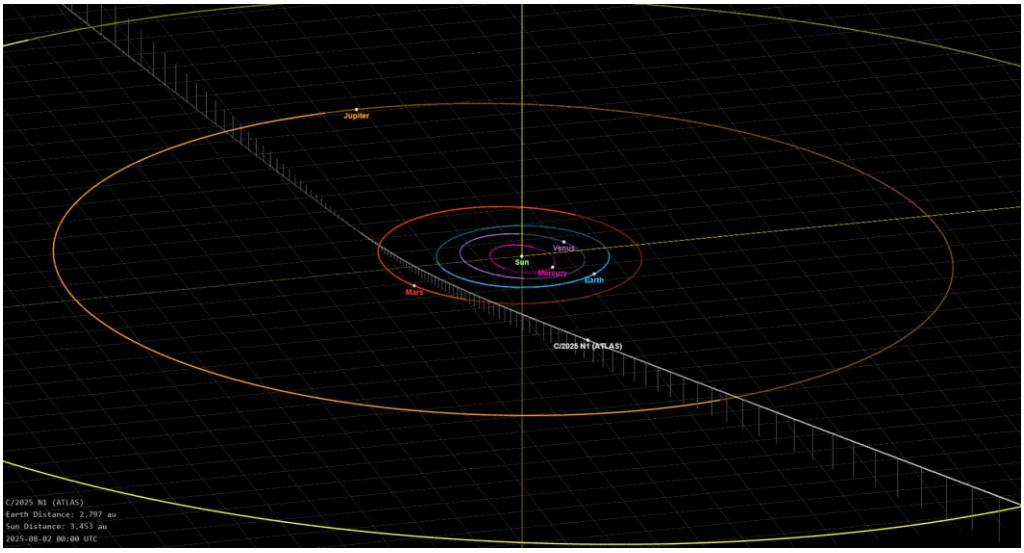
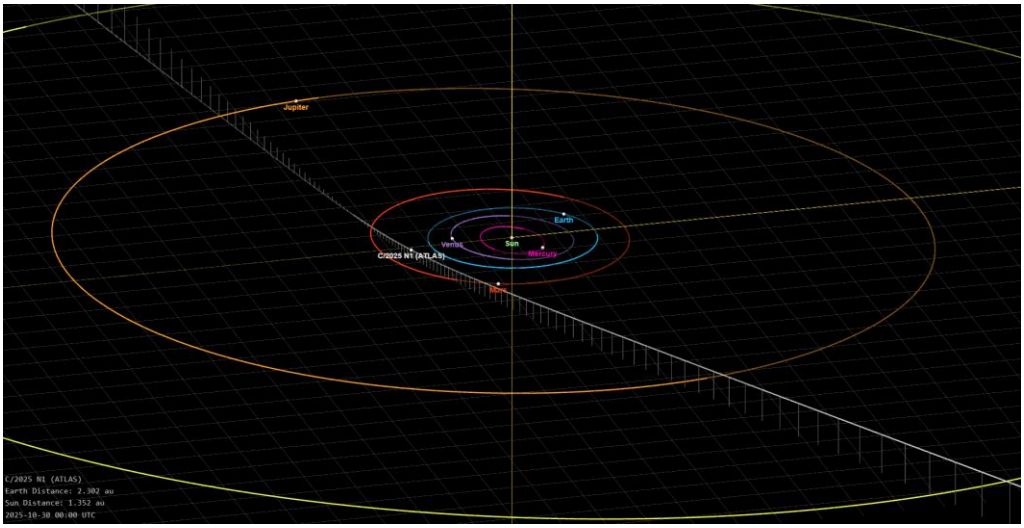
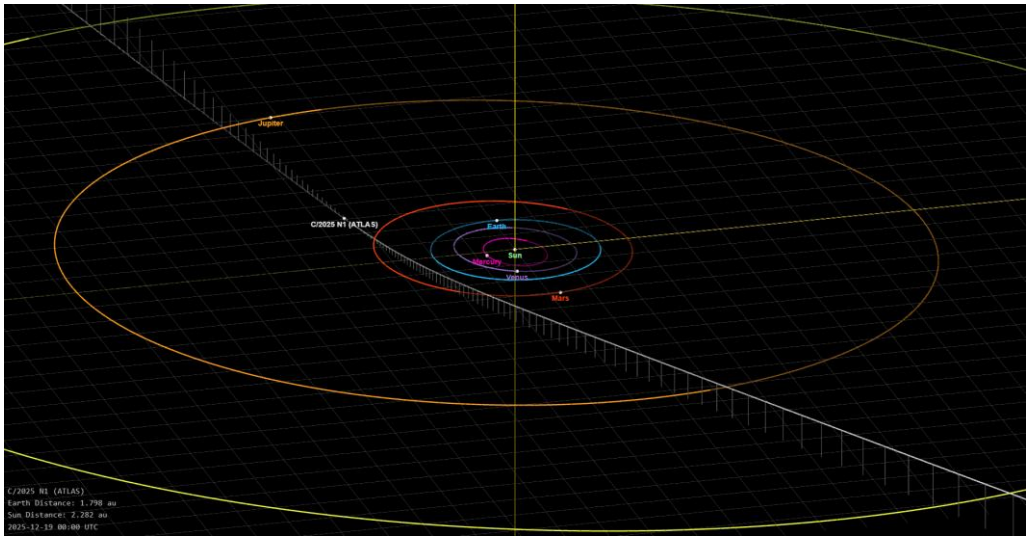


02 agosto 2025



30 ottobre 2025, massimo avvicinamento al Sole a una distanza di 210 milioni di km (1.4 UA)



19 dicembre 2025, massimo avvicinamento alla Terra a una distanza di 270 milioni di km (1.8 UA)

(da JPL Solar System Dynamics, https://ssd.jpl.nasa.gov/tools/sbdb_lookup.html#/?sstr=c%2F2025%20n1)

V. anche:

https://www.minorplanetcenter.net/mpec/K25/K25O71.html

http://www.aerith.net/comet/catalog/0003I/2025N1.html

https://theskylive.com/c2025n1-info