

* NOVA *

N. 2746 - 11 APRILE 2025

ASSOCIAZIONE ASTROFILI SEGUSINI

COMETA C/2025 F2 (SWAN)

È stata scoperta da astrofili, non osservandola attraverso un telescopio, ma studiando attentamente immagini scattate dalla fotocamera Solar Wind Anisotropies (SWAN) a bordo di SOHO (Solar and Heliospheric Observatory). «Il 29 marzo – scrive *Sky & Telescope* – l'ucraino Vladimir Bezugly è stato il primo a segnalare un oggetto in movimento nelle foto SWAN scattate la settimana precedente. Michael Mattiazzo di Victoria, Australia, ha trovato indipendentemente "una cometa piuttosto evidente" lo stesso giorno utilizzando le stesse immagini, notando che l'oggetto era di circa magnitudine 11 e sembrava aumentare di luminosità. Anche Rob Matson della California aveva esaminato i dati SWAN e ha segnalato la sua scoperta indipendente il 31 marzo».

Designata temporaneamente SWAN25F, l'8 aprile la cometa ha ricevuto il nome ufficiale C/2025 F2 (SWAN). Le comete scoperte utilizzando dati o immagini pubbliche non prendono il nome dagli scopritori, ma dal programma di origine.

La cometa C/2025 F2 sarà visibile in prima serata abbastanza bassa sull'orizzonte.

Alle ore 21 CEST il 26 aprile sarà a 306° di azimut e 13° di altezza sull'orizzonte, di 6^a magnitudine; alla stessa ora, il 27 aprile, con la Luna nuova, sarà a 298° di azimut e 14° di altezza.

Ephemeris / WWW_USER Fri Apr 11 01:51:43 2025 Pasadena, USA / Horizons										

Target body name: SWAN (C/2025 F2)					{source: JPL#1}					
Center body name: Earth (399)					{source: DE441}					
Center-site name: Grange Observatory, Bussoleno										

Start time		: A.D. 2025-Apr-20 19:00:00.0000 UT								
Stop time		: A.D. 2025-May-11 19:00:00.0000 UT								
Step-size		: 1440 minutes								

Date__ (UT)	HR:MN	R.A.____ (ICRF)_____ DEC			Azi_____ (a-app)	Elev	T-mag	N-mag	S-O-T /r	

2025-Apr-20	19:00	N	01 18 09.42	+34 37 27.5	315.152774	5.880240	7.495	n.a.	24.3461 /L	
2025-Apr-21	19:00	N	01 30 03.35	+34 54 27.8	314.024716	7.104132	7.210	n.a.	23.7328 /L	
2025-Apr-22	19:00	N	01 42 34.09	+35 03 06.1	312.732372	8.315088	6.929	n.a.	23.0971 /L	
2025-Apr-23	19:00	N	01 55 37.51	+35 01 54.5	311.267251	9.494219	6.655	n.a.	22.4511 /L	
2025-Apr-24	19:00	C	02 09 07.30	+34 49 26.5	309.623898	10.618947	6.395	n.a.	21.8104 /T	
2025-Apr-25	19:00	C	02 22 54.90	+34 24 23.8	307.801485	11.663245	6.153	n.a.	21.1943 /T	
2025-Apr-26	19:00	C	02 36 49.61	+33 45 44.9	305.805590	12.598431	5.937	n.a.	20.6257 /T	
2025-Apr-27	19:00	C	02 50 39.20	+32 52 54.1	303.649880	13.394651	5.753	n.a.	20.1300 /T	
2025-Apr-28	19:00	Cm	03 04 10.70	+31 45 49.1	301.357276	14.023113	5.609	n.a.	19.7329 /T	
2025-Apr-29	19:00	Cm	03 17 11.54	+30 25 07.1	298.960053	14.458878	5.511	n.a.	19.4581 /T	
2025-Apr-30	19:00	Cm	03 29 30.70	+28 52 03.9	296.498453	14.683754	5.463	n.a.	19.3241 /T	
2025-May-01	19:00	Cm	03 40 59.67	+27 08 29.9	294.017733	14.688658	5.468	n.a.	19.3412 /T	
2025-May-02	19:00	Cm	03 51 33.01	+25 16 38.9	291.564076	14.474763	5.525	n.a.	19.5101 /T	
2025-May-03	19:00	Cm	04 01 08.44	+23 18 55.5	289.180259	14.053123	5.631	n.a.	19.8222 /T	
2025-May-04	19:00	Cm	04 09 46.48	+21 17 41.8	286.902087	13.442859	5.780	n.a.	20.2614 /T	
2025-May-05	19:00	Cm	04 17 29.81	+19 15 07.0	284.756264	12.668467	5.967	n.a.	20.8073 /T	
2025-May-06	19:00	Cm	04 24 22.60	+17 13 00.3	282.759893	11.756926	6.184	n.a.	21.4382 /T	
2025-May-07	19:00	Cm	04 30 29.77	+15 12 48.4	280.921285	10.735194	6.423	n.a.	22.1329 /T	
2025-May-08	19:00	Cm	04 35 56.49	+13 15 35.5	279.241560	9.628388	6.679	n.a.	22.8730 /T	
2025-May-09	19:00	Cm	04 40 47.81	+11 22 06.1	277.716502	8.458721	6.946	n.a.	23.6429 /T	
2025-May-10	19:00	Cm	04 45 08.42	+09 32 47.9	276.338315	7.245050	7.218	n.a.	24.4303 /T	
2025-May-11	19:00	Cm	04 49 02.57	+07 47 55.8	275.097087	6.002875	7.493	n.a.	25.2256 /T	

NEWSLETTER TELEMATICA APERIODICA DELL'A.A.S. - ASSOCIAZIONE ASTROFILI SEGUSINI APS – ANNO XX

La Nova è pubblicazione telematica aperiodica dell'A.A.S. - Associazione Astrofili Segusini APS di Susa (TO) riservata a Soci e Simpatizzanti.

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www.astrofilisusa.it

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.fffff; DEC in degrees-minutes-seconds of arc, sDD MN SC.ffffff

'Azi____(a-app)____Elev' =

Airless apparent azimuth and elevation of target center. Compensated for light-time, the gravitational deflection of light, stellar aberration, precession and nutation. Azimuth is measured clockwise from north:

North(0) -> East(90) -> South(180) -> West(270) -> North (360)

Elevation angle is with respect to a plane perpendicular to the reference surface local zenith direction. TOPOCENTRIC ONLY. Units: DEGREES

T-mag N-mag' =

Comets' apparent visual total magnitude ("T-mag") and nuclear magnitude ("N-mag") using the standard IAU model:

T-mag= $M1 + 5 \cdot \log_{10}(\Delta) + k1 \cdot \log_{10}(r)$; N-mag= $M2 + 5 \cdot \log_{10}(\Delta) + k2 \cdot \log_{10}(r) + \text{phcof} \cdot \beta$

Units: MAGNITUDES

'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

V. anche: <http://aerith.net/comet/catalog/2025F2/2025F2.html> - <https://theskylive.com/c2025f2-info>

