→ NEWSLETTER JUNE 2026

ESA's NEO Coordination Centre

Current NEO statistics

Heading into the Northern summer, we saw another month with a relatively small number of discoveries, while still in line with typical May trends from recent years.

- Known NEOs: 41 799 asteroids and 124 comets
- NEOs in risk list*: 1980
- NEOs designated during last month: 175
- NEOs discovered since 1 January 2026: 1270

Focus on

In May, we saw our first imminent impactor alert in almost 1.5 years when the JPL SynTrack Robotic Telescopes reported two pairs of detections of a fast-moving object from two of their robotic stations, less than 30 minutes apart. ESA's Meerkat System immediately picked up the observations from the NEOCP and sent an alert to service subscribers, reporting an impact probability greater than 99% and possible impact points spread along a line between the Indian and Pacific Oceans, crossing over land in North-Western Australia and the island of Papua.

Due to the short discovery arc and poor weather conditions at most astronomical sites in Eastern Asia, Oceania, and Hawaii, no confirming telescopic observations could be obtained before the predicted time of impact. Nevertheless, a pair of observations from a single trail identified by the Zwicky Transient Facility in its archive was reported slightly after the expected time of impact, providing independent evidence of the object and leading to its designation as 2026 JN4 by the Minor Planet Center.

As of this writing, however, no solid evidence of the atmospheric entry from ground or satellite sensors has been found. Because of this lack of independent confirmation, we have decided not to include the object in our NEOCC list of past impactors for now. We will revise this decision if the impact is independently confirmed.

Upcoming interesting close approaches

A bright close approach will happen at the end of the month.

- (152637) 1997 NC1 will be the highlight of June. It is a half-kilometre asteroid that will fly by on 27 June at slightly less than 7 lunar distances. During its closest approach, it will be as bright as a magnitude 10 star, theoretically within the visual reach of small telescopes or even binoculars under dark skies. However, the nearby bright Moon will make visual observations significantly more challenging.

Recent interesting close approaches

In May, we recorded a metre-sized impactor and three similar-sized flybys.

- 2026 JN4, the impactor discussed above, was of course the most notable approacher of the month.
- 2026 JM2, 2026 JV3 and 2026 KU1, three other metre-sized objects, also flew by just outside the geostationary ring during the month.

News from the risk list

None of the objects discovered in May reached a significant ranking in our risk list.

*The risk list of all known objects with a non-zero (although usually very low) impact probability can be found at https://neo.ssa.esa.int/risk-list

In other news

- The annual Asteroid Day events will happen in Luxembourg on 26 and 27 June 2026, with many additional asteroid-themed events organised all over the world. You can read about them at https://asteroidday.org/.

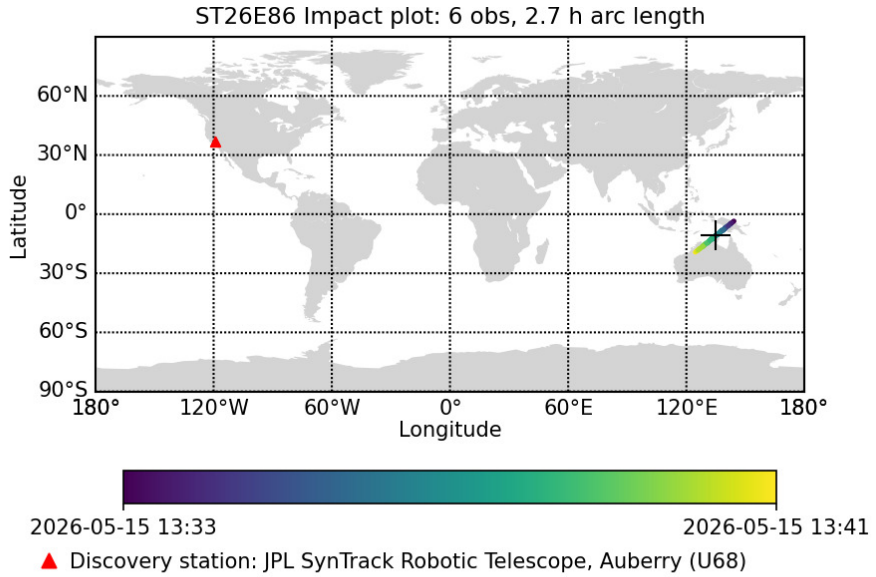
Upcoming events

- Asteroids, Comets, Meteors Conference, 6-10 July 2026, Poznań, Poland
  https://acm2026.eu/
- Europlanet Science Congress (EPSC) 2026, 6-11 September 2026, The Hague, Netherlands
  https://www.epsc2026.eu/
- 1st NEOMIR Conference: Hunting Asteroids near the Sun, 15-16 September 2026, Nice, France
  https://neomir-nice.sciencesconf.org

Meerkat reaction times

The table summarises the reaction times of Meerkat for the past impactors, since the beginning of its operations. The first column is the UTC time at which observations were published on the NEOCP, followed by the time of the first alert, the time of the first alert which gave a 100% impact score, and the warning time. The last column is the time of the observed impact. Note that 2024 UQ was reported on the NEOCP only after it impacted.

Object	NEOCP Publication	1st Alert	1st 100% Score Alert	Warning Time (h)	Impact Time
2022 EB5	20:16	20:23	20:23	1.00	21:22
2022 WJ1	05:31	05:36	06:08	2.83	08:26
2023 CX1	21:29	21:33	21:33	5.43	02:59
2024 BX1	22:33	22:36	22:36	1.90	00:32
2024 RW1	06:39	06:48	07:32	9.85	16:39
2024 UQ	19:41	19:44	19:44	−8.85	10:54
2024 XA1	07:04	07:09	07:50	9.01	16:15
2026 JN4	11:11	11:13	11:13	2.42	N/A



The impact corridor of 2026 JN4, as computed by Meerkat when the object was still on the NEOCP. The impact corridor was determined with only 6 observations, and it was included in the alert sent to Meerkat subscribers. The red triangle corresponds to the JPL SynTrack Robotic Telescope, which discovered the object.

[Credits: ESA / PDO]

Links for more information

Website: https://neo.ssa.esa.int
Close approaches page: https://neo.ssa.esa.int/close-approaches
Risk List: https://neo.ssa.esa.int/risk-list