

## → NEWSLETTER APRIL 2026

# ESA's NEO Coordination Centre

### Current NEO statistics

We just completed another month with more than 300 new NEO discoveries.

- Known NEOs: 41 390 asteroids and 124 comets
- NEOs in risk list\*: 1942
- NEOs designated during last month: 334
- NEOs discovered since 1 January 2026: 861

### Focus on

The month of March saw an unusual amount of fireball sightings, with over 100 confirmed events worldwide, according to the International Meteor Organization, including several well-documented events. Unsurprisingly, this has sparked a wave of social media speculation linking fireballs to interstellar comets, aliens, and the occasional apocalypse. Although such claims make for exciting evening scrolling, it may be no surprise to our regular readers that the number of sightings is entirely consistent with the normal activity around this time of year, likely amplified by a touch of observational bias. Panic over things in the sky is nothing new. During the 1910 passage of Halley's Comet, public anxiety led to a run on gas masks and "anti-comet pills". In keeping with tradition, the ESA Shop is already taking pre-orders for 2029. In other news, 2024 YR4 will not be hitting the Moon, so avid meteor hunters can now cancel their travel plans for 2032. Instead, we recommend switching off social media and enjoying the classic drama series "Meteor Garden", preferably with a glass of fireball-flavoured cinnamon whiskey. Cheers.

### Upcoming interesting close approaches

An object discovered a decade ago will have another approach this month.

- 2013 GM3, a Chelyabinsk-sized asteroid discovered in 2013, is expected to come to about a lunar distance in mid-April. It has not yet been recovered at this apparition, and therefore the exact distance is still unknown, but we already know that no impacts are possible during the upcoming passage.

### Recent interesting close approaches

Three tiny close approachers were discovered in March.

- 2026 EM, a small asteroid of just a couple of metres, came closer than the geostationary ring on 7 March. Two additional objects of comparable size, 2026 FS5 and 2026 ET3 flew-by slightly farther away later in the month.

### News from the risk list

VLT observations only slightly lowered the impact probability for a small object.

- 2026 CQ4, a 10 to 20 metre object already mentioned last month, was reobserved by our team together with ESO, using the Very Large Telescope. The cumulative impact probability for the next century went down to about 1 in 200, and it remains highly ranked in the risk list.
- 2026 FV6 and 2026 FF3 are 20 to 50 metre objects that entered the risk list in March, with moderately high ratings. They are still in the list at the end of the month.

\*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 possible lunar impact of 2024 YR4 in 2032 has been excluded thanks to new astrometric observations obtained with the James Webb Space Telescope. With a magnitude fainter than 30, these are likely the faintest targeted detections of an asteroid ever obtained.

## 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/>
- 58<sup>th</sup> Annual Meeting of the AAS Division for Planetary Sciences (DPS), 25-30 October 2026, Spokane, USA  
<https://aas.org/meetings/58th-dps-meeting>

## Keywords that confused ESA's NEar real-time MOnitoring system

Confused about what is real and what is fake news? You're not alone. ESA's NEar real-time MOnitoring system (NEMO), developed until 2023, was designated to monitor social media and catalogue fireball reports. Here are some of the most common keyword mentions that it mistook for fireballs.

| Keyword Detected | What it actually was   | PDO Assessment  |
|------------------|--|---|
| whiskey          | Cinnamon-infused alcoholic beverage named Fireball   | Numerous internal combustion complaints                                   |
| Meteor Garden    | Mainland Chinese television drama series   | Long-duration meteor activity (24 episodes) 7.8/10 would watch again      |
| fireball ride    | Meteor 350 Fireball Motorbike  | Ground-based fireball event, velocity inconsistent with atmospheric entry |
| meteor impact    | Multiple headlines agreeing that a "meteor impact" would help improve current global situation | No comment  |
| I am the meteor  | Influencer bio   | Object now under active tracking  |

For more information on NEMO, refer to <https://conference.sdo.esoc.esa.int/proceedings/neost1/paper/432>



The mission patch for ESA's proposed NEO mission in the Infrared has been finalized in the summer of last year (left). Creative minds at the PDO were quick to point out that it should have been called the Mid-Infrared Asteroid Observatory, or MIAO, and have already proposed an updated patch design (right).

[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>

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