→ NEWSLETTER FEBRUARY 2026

ESA's NEO Coordination Centre

Current NEO statistics

With 263 new NEOs, the year opens with an above average number of discoveries.

- Known NEOs: 40 792 asteroids and 124 comets
- NEOs in risk list*: 1905
- NEOs designated during last month: 263
- NEOs discovered since 1 January 2026: 263

Focus on

This month marks the 25th anniversary of the first spacecraft landing on the surface of an asteroid. On 12 February 2001, following a year in orbit around (433) Eros, NASA's NEAR Shoemaker spacecraft successfully descended towards its surface and touched down gently, remaining partially operational for several weeks afterwards.

The mission target, (433) Eros, the first NEA ever discovered, is currently observable at approximately magnitude 11. The asteroid was discovered by German astronomer Carl Gustav Witt at the Berlin Observatory on 13 August 1898. It is often one of the easiest NEOs to observe visually from Earth: while it typically has a magnitude around 12, it can reach magnitude 8 or brighter during particularly favourable oppositions.

An interesting piece of historical trivia: although Eros is commonly recognized as the first near-Earth asteroid ever discovered, it was not the first near-Earth object found. That distinction likely belongs to comet D/1770 L1 (Lexell), the first small body identified in an NEO orbit, discovered by Charles Messier more than a century before Eros but subsequently lost.

Upcoming interesting close approaches

None of the asteroids known at the beginning of the month are expected to have fly-bys closer than 3 lunar distances in February.

Recent interesting close approaches

Close approaches in January were also not particularly noticeable, with no known objects coming closer than 100 000 kilometres from the Earth's surface.

News from the risk list

A high-rated object was demoted thanks to astrometry by our team.

- 2025 LK, originally ranked 6th in our risk list for a possible impact in 2052, was observed by our team together with the European Southern Observatory, using ESO's Very Large Telescope. A faint but solid detection at magnitude 26.5 was sufficient to reduce the impact probability by almost 100 times, bringing the object to a routine impact threat for an object of its size.

*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

- Construction work for ESA's Flyeye telescope infrastructure on Mt. Mufara stopped due to snowy conditions on the summit. Work will restart as soon as the snow cover disappears in the spring.
- Hera has navigated the 22-day solar conjunction period without anomalies, executing all operations as planned. It passed aphelion at a solar distance of 2.368 au. Hera will perform its second deep space manoeuvre on 12 February.

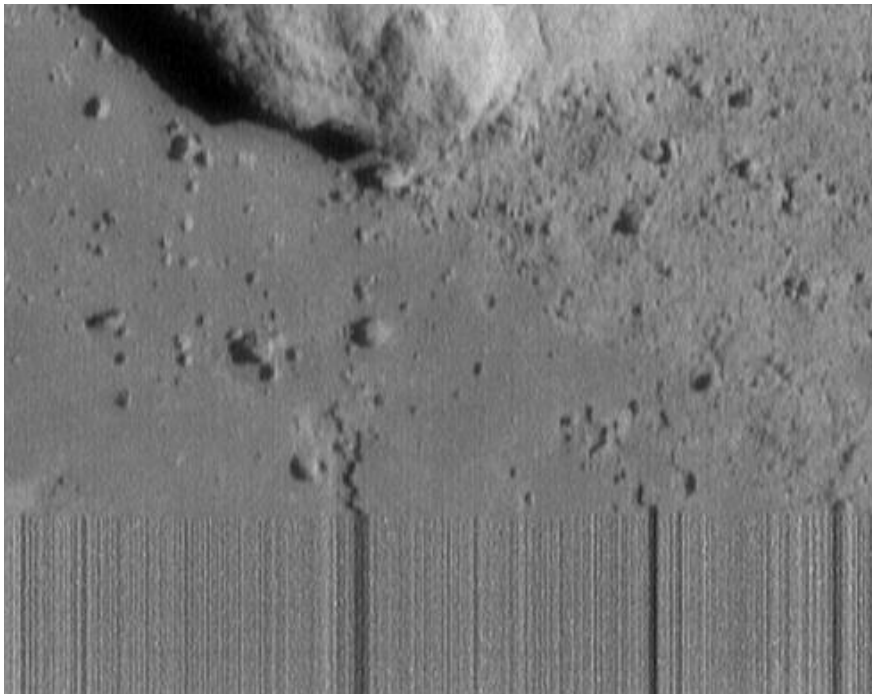
Upcoming events

- Asteroids, Comets, Meteors Conference, 6-10 July 2026, Poznań, Poland
  https://acm2026.eu/

NEAs visited by spacecraft

While waiting for the arrival of ESA's Hera spacecraft at the Didymos system, JAXA's Hayabusa2 fly-by of (98943) Torifune, and CNSA's Tianwen-2 rendezvous with (469219) Kamoʻoalewa, all happening later this year, the following table lists all NEAs visited by spacecraft so far, with the minimum distance reached from the surface.

Designation	Mission	Space agency	Date of close approach	Minimum distance in km	Equivalent diameter in km
(433) Eros	NEAR Shoemaker	NASA	2001-02-12	0	17
(25143) Itokawa	Hayabusa	JAXA	2005-11-19	0	0.33
(4179) Toutatis	Chang'e 2	CNSA	2012-12-13	3	2.7
(162173) Ryugu	Hayabusa2	JAXA	2019-02-22	0	0.90
(101955) Bennu	OSIRIS-REx	NASA	2020-10-20	0	0.49
(65803) Didymos	DART / LICIACube	NASA / ASI	2022-09-26	1	0.76
(65803) Didymos I [Dimorphos]	DART	NASA	2022-09-26	0	0.150



Close-up image of the surface of (433) Eros imaged by NASA's NEAR Shoemaker spacecraft during its descent towards the asteroid.

The image was taken from an altitude of about 120 metres above the surface of the asteroid.

The lines at the bottom of the frame correspond to the time when signal from the spacecraft was lost, due to its touchdown on the surface.

[Data source: NASA]

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