

→ NEWSLETTER OCTOBER 2026

ESA's NEO Coordination Centre

Current NEO statistics

The usual increase in discoveries during the Northern fall is happening again this year, with more than 300 new NEOs discovered in September.

- Known NEOs: 42 550 asteroids and 124 comets
- NEOs in risk list*: 2029
- NEOs designated during last month: 307
- NEOs discovered since 1 January 2026: 2021

Focus on

September marked another important milestone for Planetary Defence with the discovery of the 13th asteroid detected before impacting the Earth, [2026 RW1](#). As in previous cases, this object was only around one metre in size, making its detection particularly challenging and leaving only a few hours for follow-up observations.

Although asteroids of this size do not pose a significant hazard, their detection provides a valuable opportunity to validate the NEOCC's Planetary Defence capabilities. On this occasion, our team rapidly obtained astrometric and photometric observations from facilities in the US and Australia, determining the asteroid's rotational period and computing its entry into the atmosphere to better than 100 m in position and 0.1 s in time. Information on the predicted impact was also promptly disseminated through [Meerkat](#), ESA's imminent impactor monitoring system, and our [Imminent Impactors](#) webpage, leading to at least one ground-based detection of the resulting fireball from northern Australia.

NEOCC maintains and evolves these highly automated systems, supported by specialised expertise and human oversight, to keep the Planetary Defence chain reliable and effective. Recently, the [strewn-field prediction tool](#) added a further link to support post-impact meteorite recovery while, in the near future, [ESA's Flyeye telescopes](#) will add a link upstream, strengthening survey and detection.

Upcoming interesting close approaches

A tiny object discovered last year will come around this year.

- 2025 UK9 is a tiny asteroid, just a few meters in size, expected to come to about a lunar distance at the end of October. It has not been recovered yet, so the exact distance is still unknown, but no impact is possible.

Recent interesting close approaches

In addition to the impactor 2026 RW1, two other tiny objects came close in September.

- 2026 RT34 and 2026 SZ2, just a few meters across, both reached a close approach distance of about 21 000 km in September.

News from the risk list

A newly discovered object ranked high in our risk list, but is likely already on its way out.

- 2026 RH79 reached a notable ranking in our risk list around discovery, but subsequent observations lowered its threat by more than an order of magnitude.

*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

- Hera is approaching its destination, you can follow its cruise here: <https://hera.esa.int/>

Upcoming events

- 58th Annual Meeting of the AAS Division for Planetary Sciences (DPS), 25-30 October 2026, Spokane, USA
<https://aas.org/meetings/58th-dps-meeting>
- EU-ESA Workshop on Meteor Observations for Planetary Defence, 3-5 November 2026, Petralia Sottana, Italy
<https://indico.esa.int/event/658/>

List of imminent impactors

Updated list of impacting asteroids discovered telescopically while still in space.

Impactor	Impact Region	First Observation Time	Discovery-Impact	Distance at Discovery	Validated by
			Time in hh:mm	in LD	
2026 RW1	Indian Ocean	2026-09-05 12:34	07:22	1.366	Cameras
2026 JN4	Australia	2026-05-15 08:08	03:14	0.703	Eyewitness account
2024 XA1	Russia	2024-12-03 04:49	10:19	1.219	Cameras
2024 UQ	Pacific Ocean	2024-10-22 07:50	01:46	0.623	Satellite imaging
2024 RW1	Philippine Sea	2024-09-04 05:43	10:55	1.827	Eyewitness account
2024 BX1	Germany	2024-01-20 21:48	02:44	0.308	Meteorite find
2023 CX1	France	2023-02-12 20:18	06:41	0.605	Meteorite find
2022 WJ1	Lake Ontario	2022-11-19 04:53	03:33	0.334	Cameras
2022 EB5	Norwegian Sea	2022-03-11 19:24	01:58	0.300	Infrasound
2019 M0	Caribbean Sea	2019-06-22 07:54	11:36	1.489	Satellite imaging
2018 LA	Botswana	2018-06-02 08:14	08:29	1.015	Meteorite find
2014 AA	Atlantic Ocean	2014-01-01 06:18	20:46	1.059	Infrasound
2008 TC3	Sudan	2008-10-06 06:39	20:05	1.282	Meteorite find



A bright fireball produced by asteroid 2026 RW1 streaks across the night sky near Broome, Western Australia. Captured by Richard Young, the image documents the event that helped confirm the asteroid's atmospheric impact. Read more about the observation and impact confirmation on the [Global Fireball Observatory website](#).

[Photo credits: Richard Young
(<https://richardyoungphotography.com.au/>)]

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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