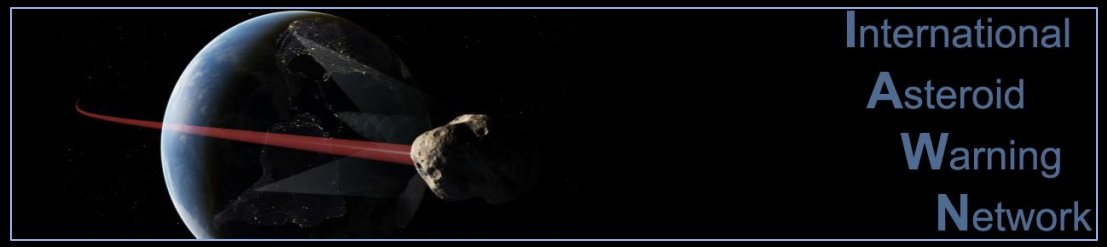


International Asteroid Warning Network (IAWN) Update

Kelly Fast
IAWN Coordinating Officer
Planetary Defense Officer (Acting)
NASA Planetary Defense Coordination Office

UN Office of Outer Space Affairs
Committee on Peaceful Uses of Outer Space

Overview for NEO Threat Response

United Nations
COPUOS/OOSA

Inform in case of credible threat

Parent Government Delegates

Determine Impact time, location and severity

International Asteroid Warning Network (IAWN)
www.iawn.net

Observers, analysts, modelers…

Potential deflection mission plans

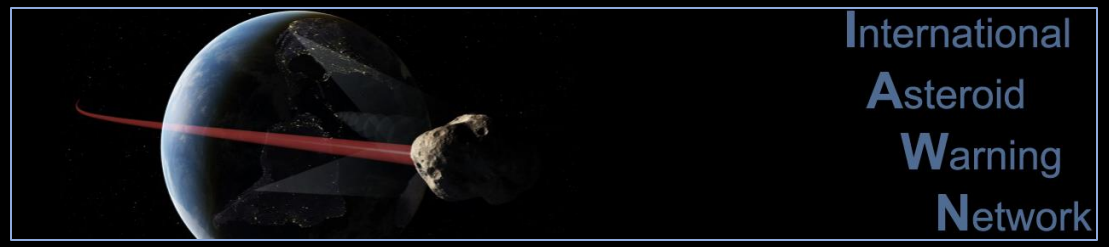
Space Missions Planning Advisory Group (SMPAG)
www.smpag.net

Space agencies and offices

Coordinated by NASA

Chaired by ESA

https://iawn.net/



International Asteroid Warning Network (IAWN)

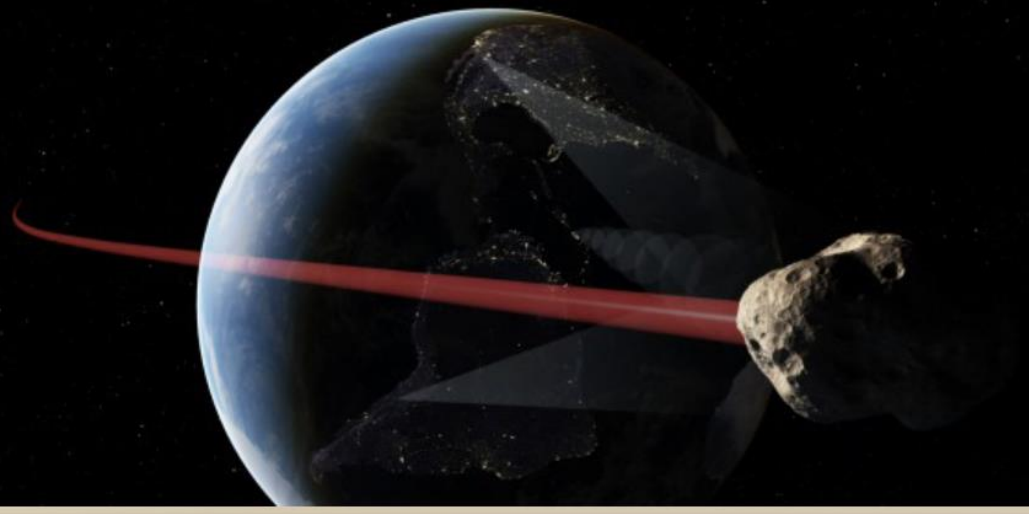
A worldwide collaboration of asteroid observers, analysts, and modelers recommended by the United Nations

IAWN includes
61 signatories
from 28 countries
(February 2025)

New signatories to IAWN since the last meeting:

United Kingdom Space Agency (UKSA)

https://iawn.net



International Asteroid Warning Network

International Asteroid Warning Network

IAWN is a world-wide planetary defense collaboration of organizations and individual astronomers recommended by United Nations resolution who collectively work to detect, monitor, and characterize potentially hazardous asteroids and Near-Earth Objects (NEOs). If an asteroid threat were ever identified, IAWN would act as a centralized hub for disseminating information to governments to aid with analysis of impact consequences and with planning of mitigation response options.

For comments or update requests for this website, contact Elizabeth Warner.

Active IAWN Notifications

Notification of Potential Impactor: Asteroid 2024 YR4

Current Activities

The IAWN signatories have been observing 2024 YR4.

IAWN is currently participating in a simulated asteroid impact threat scenario being prepared for the 2025 Planetary Defense Conference. More information about the scenario can be found on the NASA Jet Propulsion Laboratory's Center for NEO Studies website.

Recent Signatories

- United Kingdom Space Agency
- John J. McCarthy Observatory (932)
- Konkoly Observatory, HUN-REN Research Centre for Astronomy and Earth Sciences (461, 561 and K88)
- Al-Khatim Observatory (M44), United Arab Emirates

All IAWN Members

Quick Links

- IAWN Signatories (Members)
- IAWN Statement of Intent
- IAWN Steering Committee Terms of Reference
- UN Office of Outer Space Affairs NEO Page
- Space Mission Planning Advisory Group (SMPAG)
- International Year of Asteroid Awareness and Planetary Defense (IYAPD 2029)

https://iawn.net/obscamp/2024YR4/index.shtml

International Asteroid Warning Network

2024 YR4 Home
Observations
International Asteroid Warning Network

2024 YR4

2024 YR4 is an asteroid with the potential to impact Earth on 22 December 2032. The latest impact probabliities can be found on the object pages below.

- The asteroid was first observed by the ATLAS Chile site (MPC Code W68) on 27 December 2024, with precovery images extending back to 25 December 2024.
- Observations by the world wide network of observers can be found on the MPC 2024 YR4 page.
- The absolute magnitude value is approximately 24. Its size is estimated to be in the 40-90 meter range.
- The asteroid's spectra has been observed, and is consistent with possibly an S or L spectral type (J. de Lèon, on the GTC, and N. Moskovitz, on the LDT).
- VLT data (M. Devogele) and La Silla 1.54 meter data (P. Pravec) indicate a rotational period near 19.5 minutes. The VLT observers have also obtained phase curve coverage from 5 to 35 degrees.

Orbit Modeling Centers – Object Pages

- NASA JPL CNEOS
- ESA NEOCC
- NEODyS-2

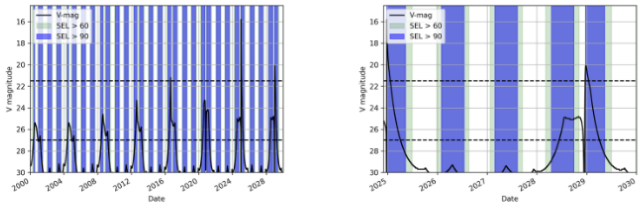
IAWN Notifications

- Notification of Potential Impactor: Asteroid 2024 YR4

Other Documents

- MPC MPEC
- ESA Close Approach Fact Sheet (CAFS)
- Protocol for Negative Observations of Virtual Impactors on MPC Documents Page

Observability Plots



LEFT: 30-yr (2000-2030) Ephemeris of 2024 YR4 and RIGHT: 2024-2030 Ephemeris of 2024 YR4
Courtesy NASA/JPL-Caltech/CNEOS

2024 YR4 Imagery