

Statement by IAWN Representative to STSC 61th session

Thank you, Madame Chair, for the opportunity to address the Subcommittee. as Coordinating Officer for the International Asteroid Warning Network (IAWN) on behalf of NASA.

Distinguished delegates,

This year marks 10 years since the first meeting of the IAWN, endorsed by this subcommittee for strengthening international cooperation in case of a near-Earth object (NEO) impact hazard, and formally endorsed by the Committee and the General Assembly in 2013. Progress over the past decade is due to the efforts of the founding members of the IAWN Steering Committee. [Sergio Camacho, Alan Harris, Karel van der Hucht, Lindley Johnson, Detlef Koschny, Patrick Michel, Boris Shustov, Tim Spahr, Giovanni Valsecchi, Don Yeomans]

Thanks to their foundational efforts and to those currently serving, there are now fifty six (56) official signatories to the IAWN Statement of Intent, representing independent astronomers, observatories, and space institutions from over 25 countries.

The current IAWN collaboration brings to bear a variety of ground-based and space-based telescopic assets to discover, track, and characterize NEOs, as well as abilities in orbit computation, potential impact prediction and modeling of potential impact effects. The signatories to the Statement of Intent recognize the importance of collaborative data analysis and being adequately prepared for communications with a variety of audiences about NEOs, their close approaches to the Earth, and Earth impact risks.

The Steering Committee of IAWN has held review meetings generally twice each year, most recently on 30 January of this year. At this meeting, the Steering Committee revisited its Terms of Reference to focus its role in notification and to ensure that its composition will, into the future, represent the core capabilities and the geographic and organizational diversity of the network.

Significant activities by IAWN signatories in the last year include:

- There were 2,883 NEOs discovered in 2023

- The number of known NEOs was 34,274 as of 30 January 2024, with 2,395 known asteroids whose orbits bring them within 8 million kilometers of Earth's orbit and with diameters larger than about 140 m. Yet, it is estimated only about 44% of the NEOs of that size range have been found.
- ESA and NASA are both continuing development of a new generation of survey telescopes in order to accelerate the discovery of NEOs; NASA's NEO Surveyor is in development for launch in the autumn of 2027.
- In March 2023, IAWN initiated a worldwide campaign to quickly measure the properties of an asteroid that temporarily appeared on impact risk lists as an exercise of the network in a short-warning situation.
- Less than two weeks ago, on 21 January 2024, a previously unknown small asteroid was observed only hours before it impacted Earth's atmosphere near Berlin, Germany. A similar warned small asteroid impact occurred on 13 February 2023 over northern France. Both were small enough to harmlessly disintegrate in Earth's atmosphere, but they provided a test of the world network's capability to find, track, and characterize them and to accurately predict their impact locations.

Distinguished delegates,

The historic close approach to Earth of the large asteroid Apophis in 2029 will be another reminder of the asteroid hazard and an opportunity to educate and to foster collaboration in planetary defence. I call your attention to Conference Room Paper 20 on an initiative for a UN-designated international year of planetary defence and I invite your support.

Should a credible impact threat be discovered by the network, the best information available will be provided by the IAWN and disseminated to all member states through the United Nations Office of Outer Space Affairs to facilitate the planning of actions that could be taken to prevent or minimize the devastating effects of an asteroid impact.

The next IAWN Steering Committee meeting is planned for the autumn of 2024 to review progress and to further refine the IAWN notification protocols.

Thank you for your kind attention.