United Nations A/AC.105/C.1/L.411/Add.5

General Assembly

Distr.: Limited
2 February 2024

Original: English

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Sixty-first session
Vienna, 29 January–9 February 2024

Draft report

Addendum

VII. Near-Earth objects

1. In accordance with General Assembly resolution 78/72, the Scientific and Technical Subcommittee considered agenda item 10, entitled “Near-Earth objects”.

2. The representatives of Belgium, China, France, Germany, Italy, Japan, the Republic of Korea, the Russian Federation and the United States made statements under agenda item 10. Statements were also made by the observers for IAWN and SMPAG. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

3. The Subcommittee had before it the following:

(a) Conference room paper submitted by the Coordinator of IAWN and the Chair of SMPAG entitled “Information on an initiative for a United Nations-designated international year of asteroid awareness and planetary defence, 2029 (IYPD2029): a collaborative effort” (A/AC.105/C.1/2024/CRP.20);

(b) Conference room paper containing guidelines for the proclamation of international years, and related General Assembly resolutions (A/AC.105/C.1/2024/CRP.26).

4. The Subcommittee heard the following scientific and technical presentations:

(a) “Activities of near-Earth space observation in Ukraine in 2022–2023”, by the representative of Ukraine;

(b) “Near-Earth objects – threats and treasures”, by the observer for NSS.

5. The Subcommittee heard status reports by IAWN and SMPAG and noted their tenth year of establishment and the importance of international cooperation and efforts being undertaken by them to share information with regard to discovering, monitoring and physically characterizing potentially hazardous near-Earth objects in order to ensure that all nations, in particular developing countries with limited capacity to predict and mitigate the impact of a near-Earth object, were aware of the potential hazard of impact by an asteroid. In that regard, the Subcommittee noted that it was important to contribute to the work of IAWN and SMPAG. The Subcommittee

further noted that more information on the work of IAWN and SMPAG was available on their websites (http://iawn.net and http://smpag.net).

6. The Subcommittee noted that the total number of known near-Earth objects came to 34,274 as at 30 January 2024, of which 2,883 additional near-Earth objects had been discovered in 2023, and that currently a total of 2,395 catalogued asteroids with approximate diameters of 140 m or more had orbits that brought them within 8 million km of the Earth's orbit. In that regard, the Subcommittee also noted that only about 44 per cent of the near-Earth objects in that size range had been found.

7. The Subcommittee noted the unique opportunity presented by a close approach by the asteroid 99942 Apophis in 2029 to raise awareness about asteroids that pass close to the Earth, their scientific and resource value, and the potential hazard that they present.

8. The Subcommittee recommended to the Committee that 2029 be declared a United Nations-designated international year of asteroid awareness and planetary defence, dedicated to a worldwide campaign to raise awareness about asteroids and to highlight the collaborative efforts being undertaken by the Committee to mitigate the potential hazard posed by the impact on the Earth of near-Earth objects, and as an excellent opportunity for a global educational campaign about near-Earth objects. In that regard, the Subcommittee took note of the guidelines for the proclamation of international years, contained in the annex to Economic and Social Council resolution 1980/67 and related General Assembly resolutions 53/199 and 61/185.

9. The Subcommittee noted efforts and activities at the national and international levels aimed at developing capabilities for the discovery, observation, early warning and mitigation of potentially hazardous near-Earth objects, including the work currently being done by space agencies on the space-based reconnaissance of the asteroid 99942 Apophis, which was important for demonstrating planetary defence capabilities.

10. The Subcommittee noted that there were currently 56 signatories to the IAWN Statement of Intent, representing independent astronomers, observatories and space institutions from over 25 countries, and that the signatories to the Statement of Intent recognized the importance of collaborative data analysis and of being adequately prepared for communications with a variety of audiences about near-Earth objects, their close approaches to the Earth and Earth impact risks.

11. The Subcommittee noted that, should a credible threat of impact be discovered by IAWN, the best information available would be provided by the Network and disseminated to all Member States through the Office for Outer Space Affairs.

12. The Subcommittee noted that SMPAG currently had 19 members and 7, permanent observers, that the Canadian Space Agency (CSA) had joined SMPAG as the most recent member and that there was an indication of interest by the Indian Space Research Organisation (ISRO) to join. In that regard, the Subcommittee noted that States and their space agencies and offices that were not yet members of SMPAG and were interested in contributing to its work were invited to express such interest in a letter to the Chair of SMPAG, with a copy to the Office for Outer Space Affairs as the permanent secretariat of SMPAG.

13. The Subcommittee noted the progress made in the first hypothetical impact threat exercise of SMPAG, under the lead of the Italian Space Agency and the Polytechnic University of Milan. The primary objective of the exercise was to simulate a case of a hypothetical threat caused by an asteroid and to focus on SMPAG procedures to develop coordinated advice for a response to such an impact threat.

14. The Subcommittee noted that the eighth IAA Planetary Defense Conference had been held in Vienna from 2 to 7 April 2023, at the Austrian Academy of Sciences and at the Vienna International Centre, hosted by the Office for Outer Space Affairs, in cooperation with ESA and the Commission of Geosciences of the Austrian Academy

of Sciences, and that the ninth IAA Planetary Defense Conference was to be held from 5 to 9 May 2025, in Stellenbosch, South Africa.

15. The Subcommittee noted with appreciation the latest brochure developed jointly by the Office for Outer Space Affairs, IAWN and SMPAG, with the support of ESA, entitled “Near-Earth Objects and Planetary Defence” (ST/SPACE/73).