



Report of the Action Team on Near-Earth Objects: Recommendations for an international response to a NEO threat

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Origin of NEOs issue in the United Nations UNISPACE III - 1999

A/Conf.184/6

- The Space Millennium: Vienna Declaration on Space and Human Development, Resolution 1 , para (1) (c)
 - (i) To improve the scientific knowledge of near and outer space by promoting cooperative activities in such areas as astronomy, space biology and medicine, space physics, **the study of near-Earth objects** and planetary exploration;
 - (iii) **To improve the international coordination of activities related to near-Earth objects**, harmonizing the efforts directed at identification, follow-up observations and orbit prediction, while at the same time giving consideration to **developing a common strategy that would include future activities related to near-Earth objects.**



Establishment of Action Teams

- Mechanism to implement some recommendations of UNISPACE III
 - 2001 STSC, Working Group of the Whole, (A/AC.105/761, annex II, paras. 3-14)
- Establishment of the Action Teams
 - **2001 Committee on the Peaceful Uses of Outer Space** (A/56/20, paras 44 – 61)



Establishment of Action Teams

- Setting the mandates of Action Teams (COPUOS)
 - For all ATs - Assessment phase & Implementation phase
- Assessment phase - by open-ended action team consisting of interested countries:
 - (a) examination of the current status;
 - (b) definition of actions to be taken during the implementation phase;
 - (c) preparation of a possible work plan.
- Assessment phase result - important to identify IGOs & NGOS with a strong interest in contributing to and participating in the implementation of the recommendations.
- COPUOS agreed that **Action Teams should actively consider NGOs that could be invited to participate**



Mandate of Action Team on NEOs

Establishment (2001) and terms of reference (2002) of AT #14

(Reports of STSC and COPUOS – 2001 and 2002)

Mandate

- (a) Review the content, structure and organization of ongoing efforts in the field of near-Earth objects (NEOs);**
- (b) Identify any gaps in the ongoing work** where additional coordination is required and/or where other countries or organizations could make contributions;
- (c) Propose steps for the improvement of international coordination** in collaboration with specialized bodies.

Open-ended membership: including intergovernmental, governmental and non-governmental space-related institutions



Drafting of international procedures for handling the NEO threat

STSC 2009

- NEOs process under a **work plan – 2009 to 2011**
 - Work carried out by STSC (and its WG) & COPUOS
 - Intersessionally by AT-14

Working Group (2009)

[...] Action Team tasked to,
(b) Review of policies and procedures related to the handling of the NEO threat at the international level and drafting of international procedures for handling the NEO threat;

Interim report of the Action Team on Near-Earth Objects (2008-2009) (A/AC.105/C.1/L.298).



WG agreement on intersessional work

- WG agreed that AT - 14 should continue intersessional work, under the multi-year workplan, to further review and develop draft recommendations for the international response to the threat of NEO impacts, for consideration at the session of the Subcommittee, in 2010. AT-14 prepared its interim report for the period 2009 – 2010, (A/AC.105/C.1/L.301).
- Interim report, L.301, contains as an annex the **revised** “Draft Recommendations for international response to the Near-Earth Object Impact Threat “ that resulted from its intersessional work.



Highlights of work of WG at STSC 2011

- a) The multi-year **work plan on NEOs was extended** for two more years (2012 and 2013);
- b) Intersessional work in 2012-2013 could include workshops of experts on various aspects of the draft recommendations made by the Action Team
- **C) Final report and recommendations of the Action Team should be presented to the 50th session of the STSC**



Results – Work of AT-14 for 2013

- Final report of the Action Team on Near-Earth Objects – (A/AC.105/C.1/L.330)
(activities and issues relating to the NEO hazard, the current understanding of the risk posed by NEOs and the measures required to mitigate that risk)
- Recommendations of the Action Team on NEOs for an International response to the NEO impact threat (A/AC.105/C.1/L.329)



Recommendations - International response to the NEO impact threat (A/AC.105/C.1/L.329)

Findings

- Many of the elements needed for an international response to the near-Earth object impact threat already exist.
- Three primary components of threat mitigation: a) discovering hazardous NEOs and identifying those requiring action; b) planning a mitigation campaign (deflection and/or disruption actions and civil defense activities); and, c) implementing a mitigation campaign, if the threat warrants.



Recommendations - International response to the NEO impact threat (A/AC.105/C.1/L.329)

Three overarching recommendations:

- An International Asteroid Warning Network (IAWN) should be established
- A Space Mission Planning Advisory Group (SMPAG) should be established
 - o (Framework, timeline and options for initiating and executing response activities);
- An Impact Disaster Planning Advisory Group (IDPAG) should be established
 - o (Inform the civil defense community of nature of impact disasters and incorporate that community into overall mitigation planning process)



Recommendations - International response to the NEO impact threat (A/AC.105/C.1/L.329)

Two supporting recommendations:

- Action on NEOs should continue to support establishment of IAWN, SMPAG and IDPAG
- Establishment and work of IAWN, SMPAG, IDPAG facilitated by the United Nations on behalf of the international community
 - o Annual reports on work by IAWN, SMPAG, IDPAG to STSC/COPUOS (item on agenda of STSC)
 - o **All recommendations to be implemented at no cost to the United Nations**



Thank you

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