

Report by the Chair of the Action Team on Near-Earth Objects to the 51st session of the Scientific and Technical Subcommittee

Sr. Presidente,

Agradezco mucho la oportunidad de dirigirme a esta Subcomisión para informar sobre la labor del Equipo de Acción sobre objetos cercanos a la Tierra durante 2013 y 2014. Aprovecho la ocasión para manifestarle la satisfacción del Equipo de Acción por su elección como Presidente de la Subcomisión para el período 2014 - 2015. Aprovecho también para reconocer la excelente labor del Sr. Feliz Menicocci, anterior Presidente de la Subcomisión, y por supuesto, para agradecer el apoyo que usted, su predecesor y la Subcomisión han brindado al Equipo de Acción. Ya que hablaré en mi capacidad de Presidente del Equipo de Acción presentaré mi informe en inglés, el idioma de trabajo del equipo de Acción.

Mr. Chairman and distinguished delegates,

The Action Team on Near-Earth Objects held four meetings on the margin of the current session of the Scientific and Technical Subcommittee. I will now have the pleasure of briefing the Subcommittee on the deliberations of our work.

As you are aware, in its resolution 68/75, the General Assembly welcomed with satisfaction the recommendations for an international response to the near-Earth object (NEO) impact threat, endorsed by the Scientific and Technical Subcommittee at its fiftieth session and by the Committee at its fifty-sixth session. Those recommendations are contained in document A/AC.105/1038, Annex III, paragraphs 11 – 14.

I would like to recall that at the 50th session of the Subcommittee, its Working Group on Near-Earth objects had recommended that:

(a) An international asteroid warning network (IAWN), open to contributions by a wide spectrum of organizations, should be established by linking together the institutions that were already performing, to the extent possible, the necessary functions;

(b) IAWN should interface with the relevant international organizations and programmes to establish linkages with existing national and international disaster response agencies in order to study and plan response activities for potential NEO impact events; and

(c) A space mission planning advisory group (SMPAG) should be established by States Members of the United Nations that have space agencies. The group should include

representatives of spacefaring nations to lay out the framework, timeline and options for initiating and executing space mission response activities.

Mr. Chairman, distinguished delegates,

The Subcommittee would recall that it had agreed that the SMPAG and IAWN should have their work facilitated by the United Nations. In particular, the Subcommittee had noted that the Action Team on Near-Earth Objects, should assist in the establishment of IAWN and SMPAG and that the Action Team should inform the Subcommittee of the progress in the establishment of both groups. Once established, IAWN and SMPAG should report on an annual basis on their work. A further agreement reached at last year's session was that all recommendations should be implemented with no cost to the regular budget of the United Nations.

Mr. Chairman,

I am pleased to inform the Subcommittee that in implementing the above recommendations, the Action Team on NEOs, in collaboration with the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA), organized two meetings in 2014 to formally establish IAWN and SMPAG.

On 13 and 14 January 2014, the first meeting of the Steering Committee of the IAWN was hosted by the Minor Planet Center (MPC), at the Harvard-Smithsonian Center for Astrophysics in Cambridge, United States. At this meeting, the core membership of an ad hoc Steering Committee was established, and it includes individuals and institutions from Russia (Institute of Astronomy/Russian Academy of Sciences), France (French National Centre for Scientific Research), United States (NASA, the Jet Propulsion Laboratory and the MPC), Germany (German Aerospace Center), ESA and its Space Situational Awareness program; the Netherlands Institute for Space Research, Italy (Institute for Space Astrophysics and Planetology), the International Astronomical Union and the Chair of the Action Team on NEOs. The Secure World Foundation and the Solar System Exploration Research Virtual Institute provided support to the meeting. I am pleased to inform that after the meeting the Korea Astronomy and Space Science Institute indicated its intention to join the IAWN.

The meeting provided an opportunity to hear directly from experts engaged in NEO discovery, tracking, and characterization; to examine policies regarding threat threshold criteria; and to provide recommendations for communicating that information to the world's political leaders and the general population at large. The meeting yielded the findings that follow.

b) The IAWN ad hoc Steering Committee recognizes that there is need to encourage additional participation in the IAWN ~~and~~, by recruitment of other organizations, to the efforts of the Network. Potential partners mentioned at the meeting include: the Russian Federal

Space Agency, Japan Aerospace Exploration Agency, the European Southern Observatory, Canadian Space Agency, Indian Space Research Organization, China National Space Administration, United Kingdom Space Agency, the French space agency and the International Scientific Optical Network (ISON). Additional partners are encouraged to join.

c) A statement of intent will be drafted to provide guidance for the IAWN's operational principles, to establish guidance by which the IAWN will operate and to acknowledge the participation of each partner in the IAWN. The statement of intent will address the goals of the Steering Committee for the global NEO database and for communicating information to diverse audiences, including politicians, policy makers, the emergency management community and the population at large. The statement of intent will also define the basic roles and responsibilities of the IAWN Steering Committee.

d) The IAWN should enhance NEO discovery and follow-up observations (e.g. astrometry, photometry and spectroscopy), especially in the Southern Hemisphere, through further international cooperation and coordination. Specifically, the IAWN should encourage the coordinated use of ground-based telescopes for NEO follow-up observations; incorporate existing assets to bridge gaps in global sky coverage; and, identify and facilitate the coordination of existing capabilities of members that could be utilized more effectively.

e) Through further international collaboration, the IAWN should seek to establish an international rapid all-sky search capability that is focused on discovering smaller, imminent impactors (e.g., Chelyabinsk event or larger) and the development and operation of a space-based NEO infrared survey telescope to increase the rate of discovery of NEOs by at least an order of magnitude.

f) The IAWN ad hoc Steering Committee agreed to organize a two-day workshop in 2014 on communication strategies regarding NEO impact hazards. The workshop will focus on the critical assessment of messages, strategies, and plans developed by the NEO community in an effort to improve upon international communications about potentially hazardous asteroids and impact risks.

Mr. Chairman and distinguished delegates,

I am also pleased to inform the Subcommittee that on 6 and 7 February 2014, in collaboration with the Action Team on Near-Earth Objects, ESA hosted the first Meeting of the Space Mission Planning Advisory Group (SMPAG) at its European Space Operations Centre (ESOC), Darmstadt, Germany. The representatives of the following entities participated: AEM(Mexico), ASI (Italy), CNES (France), CSA (Canada), Chile, DLR (Germany), ESA, Ghana, JAXA (Japan), NASA (USA), ROSCOSMOS (Russian Federation), SSAU (Ukraine), UK Space Agency (UK). In addition, representatives of the AT-14 and the UN Office for Outer Space Affairs (UNOOSA) were present.

The participants agreed that a representative of ESA would chair the first meeting of the SMPAG. After the meeting the Romanian Space Agency (ROSA) requested membership and announced its delegation to the SMPAG. Other space agencies are encouraged to join. The following is a summary of deliberations of the meeting.

a) The participants of the meeting noted that the primary purpose of the SMPAG is to prepare for an international response to a NEO threat through the exchange of information, development of options for collaborative research and mission opportunities, and to conduct NEO threat mitigation planning activities.

b) In a roundtable discussion, some SMPAG members summarized the efforts of their respective space agencies in the field of NEOs. ESA presented a sample impact case to the Group to frame discussions relevant to the future work of SMPAG. This case study traced the possible timeframe and the steps that can be taken to assist in the disaster response. Participants in the meeting were then briefed on the outcomes of the first meeting of the IAWN ad hoc Steering Committee referred to above.

c) The main work of the Group during the meeting was the consideration and finalization of the Terms of Reference of SMPAG. Consensus was achieved as to the structure and wording of the Terms of Reference. During the meeting, ESA was elected by consensus as interim Chair of SMPAG. The next meeting will be held in Vienna on 12 and 13 June 2014. This meeting will focus on the exchange of information on relevant activities in the field of NEO hazard mitigation and on the future work plan.

Mr. Chairman and distinguished delegates,

The Action Team agreed that it should continue to support the process of establishment and work of IAWN and SMPAG for the near term to facilitate their interface with the Committee and with governments and NGOs who are not participating in these NEO bodies. The Action Team will also address related issues that are not foreseen at this time or not dealt with by the two bodies. It was also agreed that the continued need for the Action Team will be reviewed at each session of the Subcommittee.

Thank you Mr. Chairman and distinguished delegates