

Association of Space Explorers

Committee on Near Earth Objects

Intervention of the
Association of Space Explorers¹
At the S&T Subcommittee meeting of COPUOS
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Vienna, Austria

The Association of Space Explorers (ASE), the professional international organization of astronauts and cosmonauts from thirty one nations, is particularly mindful of the threat from infrequent but deadly collisions between the Earth and the large population of near-Earth objects (NEOs). NEO impacts on Earth have, through geologic time, dramatically modified the planet's environment and shaped the evolution of life. From time to time large NEO impacts are thought to have caused mass extinctions of life, most recently the Chicxulub impact 65 million years ago which eliminated the dinosaurs and 75% of all species alive at the time.

Impacts by smaller, but still dangerous objects occur far more frequently and can do considerable local and regional damage. The population of NEOs that threaten life on the Earth exceeds 500,000 and an impact by one of these objects is estimated to occur, on average, once every 1000 years.

The ASE is confident that space technology has reached the point to enable humankind to intervene in this historic cosmic process by discovering these objects, predicting their potential threat to the Earth well in advance of an impact, and most importantly, actively preventing them from impacting Earth.

Of the three critical capabilities necessary to protect the Earth from such dangerous impacts, two (early warning and the capability to deflect these objects) are currently under development in several of the world's space agencies. The third, however, an approved international NEO deflection decision protocol, has garnered little attention from either national or international institutions. Since all nations are threatened by NEO impacts and all are equally put at risk in the process of deflecting these objects, such a decision-making process must be established well in advance of a particular threat arising in order to assure timely and equitable action.

The ASE, represented by its Committee on NEOs, has delivered a technical presentation to the Scientific and Technical Subcommittee of COPUOS providing a

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general review of current developments in NEO early warning and the technical capability for NEO deflection. The presentation explores in greater depth the specific international policy issues and challenges associated with making a decision to deflect an incoming NEO.

The ASE believes that the approval of such an international protocol is ultimately the responsibility of the United Nations. We have therefore called on the governments and relevant international organizations of the world, and their respective leaders, to acknowledge this challenge and accept the responsibility for prevention of these most devastating of all natural disasters.

To facilitate this process the ASE, through its Committee on NEOs, proposes to convene a series of workshops, calling on experts from around the world with relevant experience, to address this challenge in detail and to prepare, for submission to COPUOS, a draft NEO deflection protocol for its consideration.

The ASE also considers its involvement on AT14 (NEOs) to be very helpful and beneficial to its work on this matter and looks forward to continued participation as an active team member.