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Assuring a Safe, Secure, and Sustainable Space Environment for Space Activities (4)

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RISING TO THE CHALLENGE: INTERNATIONAL COOPERATION TO COUNTER THE
ASTEROID RISK

Abstract

As astronomers and geologists have learned more about comets and asteroids, they have come to realize that it is just a matter of time before one of them impacts Earth, perhaps causing enormous destruction to people and property. Indeed, on February 15, 2013, the world awoke to learn about the damage caused by a small (17-20) asteroid that entered Earth's atmosphere that morning and exploded near the city of Chelyabinsk, Russia. The resulting shock caused significant damage to a few buildings and injured 1500 people, most sustaining cuts and bruises from flying glass.

Citizens and journalists asked, how can the world protect itself from these external intruders? As it turned out, during the week of the Chelyabinsk event, international scientists and policy experts were meeting under the auspices of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) in Vienna to discuss ways to reduce the risk that such asteroids, termed Near Earth Objects (NEOs) because they circle in orbits that could intersect Earth, might cause to people and property on Earth. At the time, this group was putting the finishing touches on a series of recommendations to the COPUOS Working Group on NEOs. Most of those recommendations were incorporated into a report delivered to COPUOS in June 2013 and subsequently endorsed by the UN General Assembly.

This paper reviews the UN effort to develop appropriate international cooperative mechanisms for identifying and responding to the very real potential threats posed by near Earth asteroids. It further examines the functions of the two major structures proposed by the UN COPUOS report: the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG), which are currently in process of being organized. These two groups are excellent examples of international cooperation to tackle a threat of mutual concern.