

IAF SYMPOSIUM ON PLANETARY DEFENSE AND NEAR-EARTH OBJECTS (E10)
Planetary Defense from Asteroids and Comets (1)

Author: Mr. Alex Karl

Space Applications Services, Belgium, alexanderkarl@hotmail.com

Dr. William Ailor

The Aerospace Corporation, United States, william.h.ailor@aero.org

Mr. Brent Barbee

National Aeronautics and Space Administration (NASA), Goddard Space Flight Center, United States,

brent.w.barbee@nasa.gov

Dr. Gerhard Drolshagen

Carl von Ossietzky Universität Oldenburg, Germany, gerhard.drolshagen@uol.de

Ms. Romana Kofler

United Nations Office at Vienna, Austria, romana.kofler@unoosa.org

Dr. Nahum Melamed

The Aerospace Corporation, United States, nahum.melamed@aero.org

SUMMARY AND HIGHLIGHTS OF THE 2023 IAA PLANETARY DEFENSE CONFERENCE

Abstract

The 2023 International Academy of Astronautics (IAA) Planetary Defense Conference (PDC) was held in hybrid format on April 3 through 7, 2023 and was hosted by the United Nations Office of Outer Space Affairs (UNOOSA) and the Austrian Academy of Sciences in Vienna, Austria. The conference focused on the threat posed by asteroids and comets, and was sponsored by 16 organizations, with over 275 in-person attendees, 200 individuals participating remotely at any given time and nearly 1000 remote viewers in total. Over 100 experts gave oral presentations of their work and results, and authors submitted over 150 poster papers. This paper provides a summary of activities at the conference and highlights the fictitious but realistic asteroid impact threat exercise, which for the first time examined the possibility of a large asteroid on a collision course with Earth. This scenario was chosen to raise and discuss significant technical, legal and policy issues that would confront world leaders if such a threat was discovered, since the conference was organized at the United Nations in Vienna, with the support of UNOOSA. A further highlight were the panels of experts that discussed different aspects of planetary defense as well as the update on the plans for the proposed International Year of Planetary Defense similar to the 2009 International Year of Astronomy. The 2029 close passage of asteroid Apophis is a natural opportunity to hold the event, raise awareness about the hazard, demystify the topic, and connect current and future communities. The 2025 edition of the Planetary Defense Conference will be held in Stellenbosch, South Africa.