



PRESS RELEASE

CONFERENCE TO ASSESS THE IMPACT RISK FROM ASTEROIDS AND COMETS AND EXPLORE COUNTERMEASURES

A conference in the Washington, DC area on April 29 through May 3, 2019 will bring together world experts to discuss what's known about potentially hazardous asteroids and comets and how we might mount a defensive action in case one of these is found to be on a collision course with Earth. The conference, the 6th in a series of International Academy of Astronautics (IAA) conferences on planetary defense, reflects the increasing recognition of the potential threat these objects present to our planet as the list of threatening objects continues to increase.

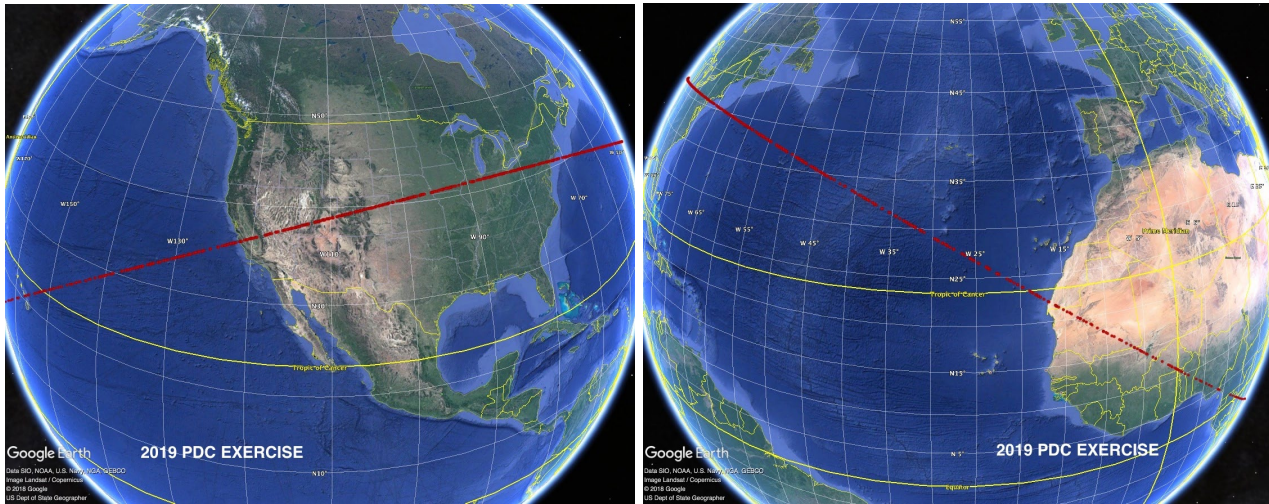
Noteworthy among these is 99942 Apophis, one of the most important near-Earth asteroids ever discovered. This asteroid will pass by Earth on Friday, April 13, 2029, closer than where our weather satellites orbit. It will be bright enough to be visible with an unaided eye for several hours around the closest approach. Apophis, named after the ancient Egyptian spirit of evil, darkness and destruction, is estimated to be around 340 meters in diameter and if it were to hit, it would cause major damage to our planet and likely to our civilization as well.

Fortunately, Apophis will not hit Earth in 2029, but the closeness of its approach will provide an excellent opportunity to study and perhaps send a spacecraft to this potentially hazardous asteroid. But suppose another asteroid is discovered and found to be on a collision course. What would we do? We might be able to deflect the object, but could our leaders provide funding and make other decisions at critical points? How would the public react if using a nuclear explosive was the only option for deflection?

At the conference, groups will address these issues and explore the decision-making process for a realistic, BUT FICTIONAL, hazardous asteroid as the threat evolves. The exercise will use an asteroid impact threat scenario developed by NASA's Jet Propulsion Laboratory (JPL) that is now posted at <https://cneos.jpl.nasa.gov/pd/cs/pdc19/>. The posting is typical of information that might be released by the UN-sanctioned International Asteroid Warning Network, IAWN, for such an event. IAWN was established in 2014 to assure worldwide confirmation of such threats and to provide alerts to world leaders if a threat is discovered (see <http://www.unoosa.org/oosa/en/ourwork/topics/neos/iawn.html>).

The JPL posting describes a 100- to 300-meter asteroid that has a 1% chance of impacting on

April 29, 2027—just 8 years from the time of the conference. Based on early predictions, the asteroid could impact in 2027 at any point along the red line shown in the figures (REMEMBER: THIS IS NOT A REAL THREAT. IT WAS DEVELOPED FOR THE CONFERENCE ONLY).



Conference participants will be asked to consider the possible consequences of the impact, provide recommendations on feasible asteroid deflection methods, and compare various space missions that might be launched to deflect the object. For a real threat, the predicted consequences would be used by emergency management agencies to plan and manage the pre-and post-impact disaster responses.

In addition to the exercise, experts will present the latest information on asteroid and comet discovery and characteristics, designs for missions to asteroids, techniques to move an asteroid, and impact consequences and disaster mitigation.

The conference and the threat exercise will be webcast live.

Additional information about the conference is available at the conference website: <http://pdc.iaaweb.org>. Information on the exercises used for the 2017 and 2015 conferences is available at <https://cneos.jpl.nasa.gov/pd/cs/>.

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