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PUBLIC COMMUNICATION USING 5 STEPS TO PREVENT ASTEROID IMPACT

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ABSTRACT

One of the biggest challenges in communicating with the public about planetary defense is to communicate clearly and succinctly. We suggest utilizing steps or points to organize the presentation of information. Specifically, the Planetary Society has begun presenting 5 steps to preventing asteroid impact. Though the content is not unique, the organization of that content into a simple-to-present 5-point plan helps make the information easier to understand and remember. One can use this same organizing principle to present a one-minute summary or a half hour talk. It can be used in presentations, on websites, or in infographics for distribution. The Planetary Society currently uses all of these formats.

Many communicators, governments, and organizations have used multipoint or multi step plans to convey information. We apply the same concept to readily outline the steps needed to prevent asteroid impact. We assume here that the audience has already been motivated as to why they should care about asteroid impact. Then the question follows "what are we going to do about it?":

5 Steps to Prevent Asteroid Impact:

1. Find

If we don't know an asteroid is there, we can't prevent its impact. The further ahead of an impact we find a threatening asteroid, the more options exist to change its orbit so it won't hit the Earth.

2. Track

Even if we find an asteroid, how do we know if it is going to hit the Earth? We need to track it— acquire telescopic observations over days, months, and years, which help refine the predicted orbit of the asteroid.

3. Characterize

To understand and be prepared to deflect asteroids, we need to characterize them, using telescopes and spacecraft to learn things like spin rate, composition, physical properties, and whether “one” asteroid is actually a binary pair. .

4. Deflect

When an asteroid is found to be on a collision course with Earth, we need to move its orbit so it won't hit Earth. There are various possible techniques in differing states of readiness, but all need more development and testing.

5. Coordinate and Educate

Asteroid impact is an international issue that requires international coordination. And, international education about the asteroid threat is required at all levels, from policy makers, to disaster management agencies, to the general public.

One can certainly debate whether one breaks this up into 5 points or 3 or some other number. Whatever the number, we propose members of the planetary defense community regularly use a clear, numbered organizational structure that can be applied to various media as well as differing depths of information.