

PDC2015
Frascati, Roma, Italy

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IAA-PDC-15-06-06

**IS A SPECIAL LEGAL REGIME FOR PLANETARY DEFENCE MEASURES
NECESSARY?**

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Keywords: *planetary defence, nuclear weapons, Outer Space Treaty, special legal regime*

ABSTRACT

There are numerous so-called asteroid impact mitigation techniques being discussed. The range of proposed measures goes from gravity tractors to destruction or deflection of asteroids through nuclear explosions.

Especially when faced with very large objects and only a short warning time, the latter option – namely the nuclear one – might be the only feasible option (see: Nina-Louisa Remuss, Space and security, in: Brünner/Soucek, Outer Space in Society, Politics and Law. Vienna New York, 2011, 553).

But the deployment of nuclear warheads to counter incoming NEOs raises several legal questions. International law has certain reservations against nuclear weapons in space. The 1967 Outer Space Treaty forbids to station nuclear weapons or other weapons of mass destruction in Earth orbit, on the Moon or other celestial bodies or otherwise in outer space. Further, the Partial Test Ban Treaty forbids nuclear test explosions in space and the Comprehensive Test Ban Treaty forbids any nuclear explosions in outer space.

But to destroy or deflect an asteroid does not constitute a weapons test. And the question remains whether the employment of such a nuclear warhead against an asteroid is military use or does constitute a use of force.

The destruction or deflection of an asteroid to save the planet Earth from widespread devastation or even destruction could very well be an emanation of peaceful use of outer space.

Even if the nuclear warhead used has to be considered a weapon (i.e. a weapon of mass destruction) and is therefore prohibited under Art. IV OST, there are some legal unclarities. Is the spacecraft carrying the warhead placed in orbit? According to scholars even following of a section of an Earth orbit would be sufficient to constitute

a placement in orbit (see: Schrogl/Neumann in Schmidt-Tedd/Schrogl, CoCoSL Vol. 1, 79). Further, there is the question of stationing nuclear warheads in outer space. The warhead employed to counter the asteroid is not stationed in outer space; it is merely sent on an intercept course to the asteroid and explodes there. Surely the benefits of such an operation, namely saving our home planet, would outweigh the negative ramifications of breaching Art IV OST but there is a question whether a legal regulation of nuclear planetary defence measures would be reasonable or if this would be unnecessary or even counter-productive.
