Existing Legal Constraints on Space Weaponry

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Three treaties restrict the development, deployment, and use of weapons in outer space. Even considered together, international law leaves open vast opportunities for space weaponry.


Commonly called the Partial Test Ban Treaty, it seeks to inhibit nuclear proliferation and a nuclear arms race and to protect the environment. The key provisions are found in Article I.

   1. Each of the Parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control: (a) in the atmosphere; beyond its limits, including outer space; or under water, including territorial waters or high seas; ...

   No nuclear explosions are allowed in space, whether as a test or part of an anti-satellite (ASAT) weapons system or as a component of an anti-ballistic (ABM) missile system. States parties can withdraw from the Treaty upon three months notification.

2. **Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (1967)**

Commonly called the Outer Space Treaty, it seeks, according to its preamble, to recognize "the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes." Article IV contains the key provisions dealing with space weaponry.

States Parties to the Treaty undertake not to place in orbit around the
earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner.

The moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortification, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of an equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited.

What is noticeable is what the Treaty leaves out. The defensive use of ballistic missiles with nuclear warheads – assuming compliance with self-defense provisions of Article 51 of the UN Charter – are not illegal, although it certainly would be contrary to the principles stated in the Treaty's preamble. Ballistic missiles do not orbit and they were purposely excluded. Weapons other than nuclear or of mass destruction are also allowed and can be placed in orbit. Lasers, conventional explosives, and kinetic devices can be deployed in space as an ASAT system or as a launching pad for space-to-ground or space-to-air attacks. Re-usable space planes similarly armed are also left out of the Treaty, leaving open future possibilities of dogfights in the cosmos. However, the Treaty includes one long-term arms control benefit. Anticipating the exploration of the moon just two years in the future, the Treaty banned the militarization of celestial bodies. With compliance, this provision will govern travel to and colonization of distant planets in the decades and centuries ahead. Withdrawal from the Treaty requires a one-year notification.


Commonly called the Anti-Ballistic Missile (ABM) Treaty, it remains in force by an agreement that stipulates that the Russian Federation, Kazakhstan, Belarus, and Ukraine are successor states to the Soviet Union. The preamble denotes multiple purposes for the Treaty. "Curbing the race in strategic offensive arms" and "taking effective measures towards ... nuclear disarmament and general and complete disarmament," and contributing "to the relaxation of international tension" became the aspiration of the two superpowers in the detente era. The ABM Treaty's companion treaty, the Interim Agreement (commonly called SALT I), froze the number of intercontinental ballistic missiles each side possessed. The principal limitations on space weaponry are found in two articles.

Article I

2. Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of this Treaty. (Article III places a ceiling of 100 ABM launchers at each of two sites, the national capital and an ICBM silo area [a 1974 protocol limits launchers to one site], and also
National Missile Defense (NMD) systems are prohibited, but not anti-theater missile defense (ATMD) systems. Russia and the United States signed a protocol in 1997 defining the limitations of ATMD systems. ASAT weapons are not banned, only their use! Article XII stipulates that "each Party undertakes not to interfere with the national technical means of verification (observation satellites) of the other Party...." Withdrawal from the Treaty requires six months notification.

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