

2.4 Weapon Space Operations

Current known *weapon* space operations are listed in Table 3. Notably, there are few current "space weapons": of the five types listed, only two are "space-to-space weapons"; the remainder are ground-launched direct-ascent weapons, without orbiting capabilities. Also, two have been cancelled and another two are still under development. The current scarcity of weapons in space bodes well for potential treaties. The space weapon genie has not yet been let out of the bottle: once loosed, it will not easily be put back in.

Table 3

**Current
Weapon Space
Operations**

- USA F-15 ASat
- USA Nuclear ASat
- USSR Nuclear ASat
- USA ERIS/SBI ASat
- USSR Co-Orbital ASat

Although only a small number of ASat weapons had been developed in the past, the 1980's saw a marked increase in interest in such concepts, primarily under the aegis of the Strategic Defense Initiative (SDI) in the USA and its mirror-image programs in the USSR.² Indeed, several programs have been spawned to develop operational systems, notably Lawrence Livermore Lab's "Brilliant Pebbles." While these were promoted as being means to destroy ballistic missiles (which are not satellites by our definition, being suborbital), some observers have noted that these weapons could also be effective against space targets. These and other future possibilities are listed in Table 4.

Table 4

**Future Weapon
Space
Operations
(Possibilities)**

- Rail Guns
- Space Mines
- X-Ray Lasers
- Lunar Catapult
- Sabotage Satellites
- RF Beam Weapons
- Laser Battle Stations
- Orbiting Laser Mirrors
- Orbiting Nuclear Bombs
- Antimatter Beams/Clouds
- Smart Rocks, Brilliant Pebbles
- Neutral Particle Beam Weapons
- Defensive Weapons on Satellites
- Tracking-Satellite Component of Space Weapons Systems