2.2   Space-to-Space Weapon Situation (Continued)

Potential targets for a spacebased space-to-space weapons system can be divided into two distinct classes based upon the orbital parameters of these targets. These classes are:

(a)   Sub-orbital projectiles

(b)   Orbiting artificial satellites.

The sub-orbital class of targets encompasses such vehicles as Intercontinental Ballistic Missiles (ICBM's), Submarine Launched Ballistic Missiles (SLBM's) and Fractional Orbit Bombardment Delivery Vehicles (FOB's). These targets spend but a brief time in the space environment ranging from approximately 8 minutes as in the case of SLBM's to approximately 60 minutes for FOB's and do not in any case fully complete an orbit about the earth. It is this class of targets that the proposed Strategic Defence Initiative (SDI) is addressed.

The Strategic Defense Initiative as proposed by president Reagan in March of 1983, is generally envisioned to be complex system employing a series of orbiting satellites using exotic technologies to shoot down ballistic missiles during their flight. A primary emphasis has been placed upon disabling the missiles during the boost phase of their flight and a variety of technologies are proposed for this concept, including chemical rockets, hypervelocity rail guns, lasers and particle beams. Current research and development activities appear to be slanted towards directed energy weapons like lasers and particle beams for the boost phase intercept portion of the layered defense system. Technical and economic concerns over the viability and effectiveness of the concept is the current debate, since ICBM's may be 'hardened' to counteract the destructive mechanisms of the directed energy weapons. Even if the system was to fail against the robust missile targets, the SDI concept would make an effective antisatellite weapon since satellites are much more fragile than missiles and are far easier to target. In fact, it is regarded that, "virtually any putative BMD (Ballistic Missile Defense) system will be an effective