

2.2 Space-to-Space Weapon Situation (Continued)

previously, there are no known and currently deployed weapons in space, such that the present concern is over the weaponization of space.

Though they vary in importance from trivial to strategic as targets, all satellite systems, civilian and military are, by virtue of their very presence in space, potential targets for a weapon. Table 2-2 lists 16 types of application satellites ranging from conventional communications satellites through the sophisticated surveillance satellites to the most esoteric ASAT weapon platforms. Figure 2-1 illustrates the distribution of the satellites launched between 1980 and 1983 according to these functional classifications.

The first generation antisatellite weapons developed thusfar are to be based upon the earth. The currently operational Soviet system requires a large booster rocket to lob its kill vehicle into a phasing orbit about the earth. The kill vehicle of this system can require up to two complete earth orbits to align itself with the target and terminate its mission with a close proximity explosion. Thus, if an American antisatellite system were to have a response time on the order of minutes, the Soviet system could itself become a target of an antisatellite system. This is in fact the apparent design philosophy of the American antisatellite system currently undergoing testing. Launched from fighter aircraft, the smaller American antisatellite weapon is much more versatile than its Soviet counterpart. Time from launch to impact of its target is on the order of minutes since the kill vehicle directly ascends into the flight path of its intended vehicle. Consequently, even first generation, ground based, antisatellite weapons are targets for themselves.

Early warning satellites can, by recognizing the infrared radiation from an ICBM launch, provide about 30 minutes warning of an attack. This effectively doubles the time available from ground based radars to make crucial decisions. It has been postulated that if early warning satellites can be disabled quickly, a nation can be rendered blind, being unable to detect launches during the early phases of a confrontation. However, it is also argued that such an attack on early warning