

2.4 Summary of the Space Weapon Environment (Continued)

Military satellites for surveillance of terrestrial activities or even activities within the atmosphere, for example aircraft operations, must be in relatively low orbits to obtain highly detailed information. All of these satellites are vulnerable even with hardening, so they are legitimate targets. Weapons satellites would be placed in the same general region of space as these satellites, the actual separation between the weapon and the target depending upon whether the weapon was in the stand-off or close range class. Paxsat would have a meaningful role in all cases.

Weapons to be deployed against targets on earth would be stationed in relatively low orbits for reasons of cost effectiveness. Whether used directly from space or used after re-entry, they are all legitimate objects of Paxsat verification.

Difficulties in successful verification of earth directed weapons as well as space directed weapons pertain mostly to verifying the first generation of unsophisticated close range weapons and the stand-off nuclear EMP device. Both require close inspection to confirm the presence or absence of a weapon payload. The other stand-off weapons, essentially the beam weapons have more distinguishing features and are therefore harder to disguise.

A summarization of the four categories of assets (i.e. targets) and the six potential spacebased weapon systems is shown in Table 2-7. Relevance between weapons systems and targets are signified in this table by the eight cases marked 'yes'.

Collision weapons, because they are limited to close range encounters, are effective against the category 1 targets, designated Space Assets in Table 2-7, but have no role against targets in categories 2, 3 or 4. These weapons are relatively inexpensive, a re-usable weapon could require re-fuelling in space, and the technology exists to build such a weapon now. Such a weapon could be difficult to verify if it also served some peaceful role.