

2.4 Summary of the Space Weapon Environment (Continued)

Conventional explosion weapons, like collision weapons, are effective at close range only. Thus, they too are effective against category 1 targets and ineffective against targets in categories 2, 3 and 4. These weapons are relatively inexpensive, they could be built and deployed now, and they could be difficult to verify.

Nuclear explosion weapons are relatively inexpensive and could be built and deployed now. They are classified as long range area or volume weapons. The radiation from a nuclear explosion in space is effective against category 1 targets, present and future, and against the terrestrial targets and spacebased weapons of categories 2 and 3. The Electromagnetic Pulse (EMP) from a nuclear explosion in space is most effective against category 2 (terrestrial) targets on a continental basis.

Space launched rockets are effective in space only. They are very effective against the current generation of military and commercial assets which are highly vulnerable and without defences. Rockets would have limited effectiveness against a spacebased weapon system, which is assumed to be 'intelligent' in a threat situation. Spacebased rockets are inexpensive although the spacebased launching platform is a highly intelligent system. Such a system could be successfully deployed in the next decade. A rocket platform would be less difficult to verify than an exploding device.

Lasers or particle beam weapons in space are a threat to any object in space or an object approaching or leaving space. Hence, they are effective against category 1, 3 and 4 targets. The potential effectiveness of these weapons against point targets on earth has yet to be established. These systems are very expensive to build and deploy and they may be expensive to maintain operationally capable. They are not difficult to verify.

Spacebased jammers for use in Electronic Warfare (EW) and Electronic Countermeasures (ECM) are ineffective against categories 2 and 3 targets and have very limited effectiveness against category 1 targets as a substitute for earthbased jamming sources. A spacebased jammer has