POTENTIAL SATELLITE WARFARE

COMMITTEE: POLITICAL & DISARMAMENT

Space warfare, as the name suggests, is combat that takes place in outer space (outside the atmosphere). It does not include the use of satellites for espionage, surveillance or military communications. As of today, no actions of this type of warfare have been directed in aggression, however several successful training/test missions have been executed by China and the USA. So far there have been no casualties from space warfare. However many theories have been tested and while we do not know of any weapons systems based in space, there is potential and secret initiatives may already be in development or operational.

The Outer Space Treaty (1967) prohibits the placement of nuclear weapons in space as well as banning the installation of military facilities on celestial bodies. All major spacefaring nations have agreed to the treaty, however it does not prohibit the use of conventional weapons form being used and placed in space.

Theoretical space weaponry

Ballistic weapons have been the most tested. These include regular explosive missiles both for earth to space interception as well as space to earth bombardment. Most of these missiles are aimed at either destroying satellites or targeting ground-based nuclear weapons. Also developed were railguns.
Electromagnetic warfare has also been considered as a potential to knock out satellites. Microsats and picosats were developed by the US for this means.
Kinetic weapons have so far been seen as the most likely candidate for space weaponry. A kinetic weapon is one that relies on its speed to inflict damage rather than explosions (e.g an arrow). However if an object were dropped from space, the energy gained on re-entry could prove more devastating than explosive weapons.

Implications

Since the distances in space are so great (even light takes years) targeting could prove difficult and dangerous. It would take a railgun eighteen hours to get from the moon to earth and a laser about 2 seconds (and that is with the assumption they travel in a straight line. the distance means an error of even a degree could result in missing by thousands of kilometres.
Although satellites are difficult to hit, if one was destroyed, the remaining debris would remain in space for the foreseeable future and cause complications further down the line or they could fall to earth in an uncontrolled descent, potentially impacting in highly populated areas.

To consider

- Should all weapons be banned from deployment/use/storage in space?
- Which, if any, forms of space combat should be restricted (e.g Space to ground)?
- Which of these restrictions should be placed on nations wishing to destroy their own satellites?
- Does space warfare violate the Outer Space Treaty which states space should be used for the peaceful exploration of all states?
- How to we avoid conflicts being triggered by actions/aims relating to or in space?