
2.0 THE OUTER SPACE SITUATION

2.1 Introduction

A weapon in space can have as its objective the destruction of, or the damage to another orbiting object, or the destruction of, or damage to targets situated on the earth. The former weapon's objective is accomplished in the space environment while the latter weapon's objective may be accomplished either directly from space or subsequent to a re-entry through the earth's atmosphere. The current debate over the Strategic Defense Initiative (SDI), a spacebased ballistic missile defense concept more widely known as the 'Star Wars' concept, marks a third function for a space weapon: namely the destruction of suborbital ballistic missiles during flight.

The review of weapons in this section of the report is developed in the context of a Paxsat A system operating to verify a treaty agreement with the verification taking place in space. Legitimate candidate weapons for Paxsat investigative scenarios are weapons placed in stable orbits with the aim of being used at some future time. Weapons like the Fractional Orbit Bombardment System (FOBS) developed by the Soviet Union in the late 1960's, the current generation of antisatellite weapons under development and testing within the Soviet Union and the United States, and the familiar strategic and tactical ballistic missiles of the current day, are not candidate weapons in the Paxsat scenario. These weapon systems spend far too limited a portion of their flight time in the space domain for space-to-space investigation.

In the case of the FOBS, a nuclear warhead can be fired into an orbit of 160 km altitude and then slowed down by retro-rockets to re-enter the earth's atmosphere and fall on the target before the completion of its first orbit. This approach makes it possible to attack Western targets by the 'back door', travelling three quarters of the way round the world via the South Pole, instead of the traditional 30 minute ballistic missile trajectory over the North Pole. Such a roundabout trajectory would last approximately one hour.