

The Politics of Military Dominance: Weaponizing Orbital Space

Joseph Zimmerman and Raymond Duvall

Previous Research

My research into the subject of space weapons can be subdivided into three distinct stages, with this poster being the culmination of the third term. During the first term, I became familiar with the governmental agencies involved in researching space weapons, I scrutinized budgetary data from those agencies, and I composed a comprehensive list of programs dealing with space weapons. During the second term, I analyzed programs which I had discovered in the budgetary data mentioned above and I used this information to portray the area of space weapons I had been examining. During the third term I sought to complete this research by updating the budgetary data I had compiled and by researching more programs.

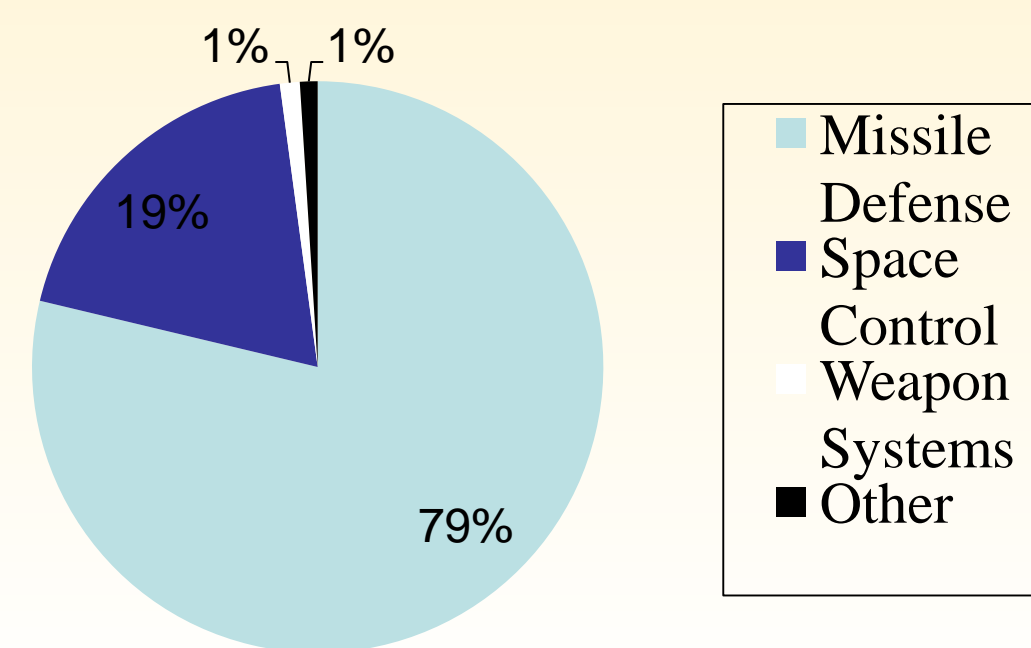
Overview

The nature of my research took on distinct characteristics, with one period of research being an examination of budgetary data and the other being an in-depth analysis of individual programs. Below are my findings on budgetary data and to the right are my findings on programs which fund research on space weapons. There are four categories into which space weapons programs can be classified: Missile Defense, Space Control, Weapon Systems, and Other.

Budgetary Data

In FY 2011, \$10.35 billion was requested for the research, development, test, and evaluation (RDT&E) of space programs. This is 13.6% of the money requested for all of the RDT&E programs in the Department of Defense. The Missile Defense Agency requested \$7,454.6 million, the Air Force requested \$2796.6 million, and DARPA requested \$98.1 million. Below is a graph showing the distribution of funds for each category of space weapons in Fiscal Year 2011.

Missile Defense: \$8147.6 million
Space Control: \$1982.3 million
Weapon Systems: \$116 million
Other: \$103.4 million



Missile Defense

There are 39 Missile Defense programs, of which I have singled out three programs that are particularly noteworthy. Below is a brief description of these programs:

Precision Tracking Space System: This program is developing a space-borne sensor system that would track missiles in their earliest phases.

Directed Energy Research: This program is developing laser capabilities that would be used for the purpose of missile defense.

Space Based Infrared Systems: This program is developing an initial warning system that would report a ballistic missile attack.

Some other programs worth mentioning are:

- Ballistic Missile Defense Aegis
- Ballistic Missile Defense Enabling Programs
- Ballistic Missile Defense Sensors
- Ballistic Missile Defense Tests and Targets
- Land-Based SM-3
- Space Tracking & Surveillance System



Space Control

There are 38 Space Control programs, of which I have singled out four programs that are particularly noteworthy. Below is a brief description of these programs:

Counterspace Systems: This program is developing the ability to disable enemy satellites and prevent attacks on American satellites.

Front-End Robotics Enabling Near-Term Demonstration: This program is creating the capability for satellites to connect in space and perform tasks.

Advanced Weapons Technology: This program is creating laser technologies which could be used in space.

Space Situational Awareness Systems: This program is developing new Air Force sensors and improving communications.

Some other programs worth mentioning are:

- Advanced Spacecraft Technology
- Evolved Expendable Launch Vehicle
- JSpOC Mission System
- Operationally Responsive Space
- Space and Missile Test and Evaluation Center
- Space Surveillance Telescope



Weapons Systems and Other

There are 12 Weapon Systems programs and 17 programs that I have designated as Other. I have singled out one program in each category, and below is a brief description of each programs:

High Energy Laser Research (WS): This program is studying the technical feasibility of different kinds of lasers that can be used as weapons.

System F6 (Other): This program is developing technologies which would enable a small satellite network do what large satellites currently do.

Some other programs worth mentioning are:

- Falcon (WS)
- Space Test Program (WS)
- Big Eye (Other)
- National Security Space Office (Other)
- Spacelift Range System (Other)



Analysis

- Based on the budgetary data, it seems clear that the development of space weapons has a high priority for the Department of Defense
- The use of space for Missile Defense primarily involves sensing and tracking systems, but it appears that space may also become a platform to intercept ballistic missiles from with further research.
- The use of space for Space Control seems to be advancing quite rapidly, for there is a growing sense in the military of how important the field is and there are many tangible developments accumulating. Based on the research already being done, the United States appears set on unilaterally controlling orbital space by way of disabling or attacking enemy satellites and preventing attacks on American satellites.
- The use of space for Weapon Systems and Other uses clearly has a lower priority than Missile Defense and Space Control, but these categories are still important because of the potential power that could be derived from the programs in these categories if they yield results in the future.

Future

1. Conclude my research into programs
2. Examine the opinions of politicians of on this issue
3. Write a scholarly article based on this research with Raymond Duvall



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