



Contact: Natalya Anfilofyeva

October 30, 2007

## Report Raises Questions About Cost and Effectiveness of Space-Based Weapons

The Center for Strategic and Budgetary Assessments has released a new report “Arming the Heavens: A Preliminary Assessment of the Potential Cost and Cost-Effectiveness of Space-Based Weapons” authored by Steven Kosiak, CSBA’s Vice President for Budget Studies.

The report is especially timely, given the testing of a Chinese anti-satellite (ASAT) weapon earlier this year, and the recent marking, at the beginning of this month, of the 50<sup>th</sup> anniversary of the Sputnik launch. This report attempts to raise the level of debate concerning the wisdom and value of acquiring and deploying space-based weapons. It provides rough, order-of-magnitude, estimates of the potential cost of such systems, and offers tentative conclusions concerning the cost-effectiveness of various types of space-based weapons.

The report finds that over the next two decades, space-based ballistic missile defenses are likely to prove very costly and—especially in the case of laser weapons—technologically risky, as well as relatively easy for an opponent to defeat. Space-based systems designed to strike ground targets might be less costly than space-based ballistic missile defenses, but terrestrial-based alternatives would generally be more cost-effective in this prompt strike role. Nor does the report see a compelling need, in the near-term at least, to deploy space-based ASAT weapons. Among other things, this is because the US military already has or is acquiring a range of terrestrial-based systems (such as ground-based ballistic missile defenses) with significant ASAT capabilities.

Ultimately, Mr. Kosiak suggests, the most cost-effective means of protecting US satellite capabilities may be to rely on a range of passive countermeasures, such as decoys, and terrestrial-based alternatives, such as unmanned aerial vehicles (UAVs). He also argues that strengthening US space surveillance and tracking capabilities offers an important means of improving the security of US satellites.

“Space-based weapons designed to strike terrestrial targets, conduct ASAT attacks, and intercept enemy ASATs appear to be neither necessary, nor, generally, as cost-effective as terrestrial-based alternatives,” stated Mr. Kosiak. “However, unlike space-based ballistic missile defenses, these other types of space-based weapons may, in some cases, be relatively affordable and even represent cost-effective options.” As such, he noted, “in some instances, non-budgetary considerations, such as the perceived strategic importance of the capability and the potential arms race implications of moving ahead with such a system, may have to play a dominant role in shaping programmatic and policy choices.”

# # # # #

The Center for Strategic and Budgetary Assessments (CSBA) is an independent policy research institute established to promote innovative thinking about defense planning and investment strategies for the 21st century. See our web site at <http://www.CSBAonline.org>.