The Dividends of SDI

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In September of 1993, the National Institute for Public Policy published our report with the title "What Did We Get for Our \$30-Billion Investment in SDI/BMD?" In it, we reviewed what had been achieved during the first decade of President Ronald Reagan's Strategic Defense Initiative (SDI).

At the time, a volatile debate—with "Star Wars" caricatures and many false public accusations in the media—continued in spite of the Clinton administration's effort to depoliticize the debate by renaming the Strategic Defense Initiative Organization (SDIO) as the Ballistic Missile Defense Organization (BMDO) and giving priority to ground-based systems—particularly Theater Missile Defense (TMD) systems. Charges of wasted resources abounded, prompting the question in the title.

It deserved a direct answer, and we, as two former SDI Directors, sought to account for our stewardship.¹ One of us directed the original SDI program to respond to the President's vision, and the other advocated that vision to the Soviets in Geneva and refocused SDI to account for post-Cold War realities—as directed by President George H.W. Bush in January 1991 and largely endorsed by Congress in the *Missile Defense Act of 1991*.

We argued that SDI was productive by many standards, and from at least three perspectives:

From a geopolitical/geostrategic point of view, SDI induced the leadership of the former Soviet Union to return to the negotiating table after their 1983 walkout from all arms control talks, and thereafter to negotiate seriously toward deep reductions in nuclear arms. A number of authoritative sources, including former senior Soviet officials, had by then stated that Ronald Reagan's highly visible commitment to SDI was a significant factor in persuading Soviet General Secretary Mikhail Gorbachev to give up the arms competition and change the course of the former Soviet Union, hastening the end of the Cold War. What were these achievements worth? Certainly many times the \$30 billion invested over the first SDI decade. On January 29, 1990, then-Defense Secretary Dick Cheney announced a \$167-billion reduction in the FY1990-94 DoD plan for the next 5-years alone.

From an acquisition management perspective, we observed that SDIO had created a very effective management team that had for a decade continuously integrated evolving advances of key cutting-edge technologies into field demonstrations and architectural options—and that this, in turn, had rapidly moved the technology out of the laboratory and into innovative acquisition programs. In our judgment, SDIO's innovation translated into substantial savings—and, more importantly, provided substantially more capable active defenses to our operational forces years sooner than would have otherwise been the case.

From a technical perspective, remarkable hardware advances—in electronics, sensors and detectors, computers, propulsion, communications, and power—resulted



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from SDIO's emphasis on maximizing overall system performance. Unit size, weight and costs were reduced, in many cases by orders of magnitude, while operational performance characteristics also increased dramatically, in many cases also by orders of magnitude. These advances, which had numerous spin-off applications, were integrated into field demonstration experiments that improved the engineering state of the art sufficiently to move into serious acquisition programs for our military forces.

In our opinion, these geopolitical, management, and technical innovations would never have happened in a program with a "business as usual" approach. Without the status that came from a clear Presidential mandate and supportive Secretaries of Defense, efforts to provide effective defenses to protect the American people, our forces overseas, and our allies and friends would have surely been short-lived; they would have sunk under the weight of ideological opposition and a risk-adverse defense acquisition bureaucracy.

In particular, the inhibitions of the Antiballistic Missile (ABM) Treaty had for over a decade blocked progress at every turn, except for research on limited, fallback systems to help assure the survivability of our land-based intercontinental ballistic missiles to help underwrite the Mutual Assured Destruction (MAD) Cold War policy that President Reagan abhorred. On March 23, 1983, he challenged the scientific community to build defenses "to save lives rather than avenge them," and we were honored to help him pursue that objective.

We had little doubt of his serious intention to pursue research and development toward that objective within the broadest possible interpretation of the Treaty—at least until we could demonstrate effective defenses were feasible. He would not accept any additional limitation and was delighted with early successful demonstrations of space defense technologies, such as the 1987-88 Delta series that won wide acclaim while proving space-based interceptors could work.

The Soviets and international arms control elite had already gotten this message early, loud and clear, and sought in every way possible to block further development—including a broad public diplomacy/propaganda campaign beginning immediately after the President's 1983 speech. Perhaps the most famous evidence of this effort was Soviet General Secretary Gorbachev's famous last-ditch attempt at the October 11-12, 1986, Reykjavik Summit to block further advances by limiting all testing of space based defense technology to the laboratory. Even though President Reagan was very interested in Gorbachev's proposed reductions in offensive nuclear forces, he refused this constraint and walked out. Actually, we pocketed the Soviet concessions at Reykjavik, which led to the 1987 Intermediate Nuclear Forces (INF) and the 1991 Strategic Arms Reduction Talks (START) treaties that for the first time actually reduced nuclear arms—without any further limitation on strategic defenses.

President Reagan's commitment to SDI was inseparable from the breakup of the Soviet Union. To be sure, his modernization program to repair our atrophying strategic forces, and his investments to repair our hollowed-out conventional forces, were key in blocking the Soviets. And his leadership within NATO was critical to sustaining the West against the aforementioned diplomacy/propaganda, especially during the pivotally important 1984 elections when all our key allies held firm. But SDI was a centerpiece. Britain's Prime Minister, Margaret Thatcher, perhaps put it best:

I firmly believe that it was the determination to embark upon the SDI program and continue it that eventually convinced the Soviet Union that they could never, never, never achieve their aim by military might because they would never, never succeed.²

We briefed Mrs. Thatcher regularly because she was one of our greatest supporters, not just the President's friend. Her technical training informed probing questions of all aspects of our programs and her political astuteness was always helpful.

With the breakup of the Soviet Union and rapidly evolving strategic scene, President Bush directed the SDI program away from seeking to deter/defend against a massive ICBM attack from the Soviet Union to protecting Americans at home and our overseas troops, friends and allies against limited attack with ballistic missiles of all ranges launched from anywhere on earth. This Global Protection Against Limited Strikes (GPALS) concept gained significant political support—even with the Russians.

In his January 31, 1992, speech at the United Nations, then-Russian President Boris Yeltsin proposed that SDI be redirected to take advantage of Russian technology and to jointly build a global defense against ballistic missiles. It was an echo of Reagan's own position. Regrettably, however, that possible outcome was lost, for at least two decades, in the 1993 Bush-to-Clinton transition.

As we look back to the transition away from the SDI era to later BMD efforts, the most notable loss was the continuation of any serious program to consider space-based interceptors—which we both identified in our end-of-tour reports as an, if not the most, important product of the SDI investments on our watch. We believed then, and continue to believe now, that if the political impediments can be overcome, an effective space-based interceptor system could be deployed within five years.

Today, we don't have the inhibitions forced upon defense development in the past. To his great credit, President George W. Bush withdrew from the ABM Treaty in 2002. As a result, we can now test directly what we wish to build. It is critically important that no new arms control or executive agreements undermine this freedom.

As we look at missile defense advances made since our watch, we are gratified to see the success of programs we led in their pioneering stages. While we don't have the space defense systems that we believe will ultimately be most cost-effective in providing a global defense, we do have an evolving global architecture involving a complex of maturing ground, sea, air and space-based assets integrated within a global command and control architecture. Perhaps most important, we no longer seriously debate *whether* ballistic missile defense is needed; rather, we argue about the most effective missile defense that is needed. That is money well spent indeed.



^{1.} Lt. Gen. George L. Monahan, the second SDI Director, surely would have joined us had he not recently died.

Prime Minister Margaret Thatcher, remarks at the SDI National Test Facility in Colorado Springs, Colorado, August 3, 1990.