

# EIR Science & Technology

---

## The SDI: Is it going anywhere?

---

*Carol White reports on the latest budget-cutting “restructuring” of the Strategic Defense Initiative, emphasizing a system that will be obsolete before it is deployed.*

---

The Strategic Defense Initiative, along with other essential features of a strong national defense, has been a key issue in this presidential campaign. While George Bush has reaffirmed his commitment to the SDI, in contrast to Michael Dukakis, who would reduce the program to a mere research effort, a practical question still remains. Is the pace of the program being slowed to the point that it will be *de facto* reduced to a mere research effort—either to appease Soviet objections, or reduce the defense budget to “acceptable” limits?

On Oct. 6, the Department of Defense announced the conclusion of the Defense Acquisition Board, that costs can be cut on the SDI by reducing the cost of the space-based interceptors (SBI) from \$52 to \$18 billion. SDIO chief Gen. James Abrahamson confirmed this estimate in his testimony before Congress. General Abrahamson claimed that the main features of the first stage deployment will be preserved. Nevertheless, we can justly surmise that the proposed further cuts in the program have occasioned his resignation as its director.

In a written release to the press, the Defense Acquisition Board summarized the proposed changes as follows: “First, we were able to increase the performance of each individual SBI by using more capable seeker technology and design. This, together with shifting more of the burden to the lower cost Exoatmospheric Reentry-vehicle Interceptor Sub-System [a mid-course, ground-based interceptor]—which was increased in inventory by about 70%—enabled us to cut the size of the SBI constellation [the number of interceptors] in half.

“Over half of the SBI cost reduction is due to these factors alone. Removing a number of support functions from the SBI carrier vehicle, the ‘garage’ that carries the interceptors, was

the other major change. Centralizing battle management, command, control and communication and the tracking system on the Space Surveillance and Tracking System is also responsible for a decrease in the costs. Additional sources of SBI cost reduction include changing the manner in which the system responds to defense suppression attacks as well as the direct impacts of lower-cost, more producible interceptor component technologies.”

On the same day, Oct. 6, General Abrahamson testified before a joint hearing of the House and Senate Armed Services Committees regarding the restructuring of the SDI. He stated that deployment of the SDI would be put back to the latter half of the next decade, but others connected to the program have estimated the date to be more likely even later—into the next century. Industry spokesmen point out that the program now is at least two years behind schedule in developing already-proven technologies. This is because of the stretchout imposed by previous budget cutting, plus uncertainties about the present budget, which cut back SDI funding, and originally, also mandated diversion of funds to Sen. Sam Nunn’s Accidental Launch Protection System (ALPS). (This congressional directive was dropped after President Reagan vetoed the budget.)

There have been significant technological improvements in the program; however, the substantial reduction in the budget, which General Abrahamson said was mandated by the Joint Chiefs of Staff, goes far beyond any cost-cutting due to technology-based savings. In his testimony, Abrahamson stated that the estimated cost of development and deployment of Phase I of the SDI, which had already been reduced from \$145.7 billion last year to \$115.4 billion in June, could now be reduced to \$69.1 billion. One effect of this restructuring of the program would be to shift the emphasis from

space-based to ground-based defense, which would reduce the capability to strike out enemy missiles while they are in the boost phase. This shift alone, according to testimony by Undersecretary of Defense Robert B. Costello, would save \$34 billion. The kind of changes reported on, which would further centralize command and control, could also make the system more vulnerable to enemy disruption.

In 1982, when Lyndon LaRouche and his associates were stumping the country for the program, which was eventually adopted, in part, as the Strategic Defense Initiative, LaRouche called for a ten-year \$200 billion program. It is of parenthetical interest that Caspar Weinberger, only two years ago, agreed with the early 1990s time frame for deployment of the first phase of the system.

Initially, President Reagan requested \$26 billion for the first five years of the program—approximately one-quarter the amount suggested by LaRouche. In fact, the SDI has received only \$15 billion during its first five years. According to press reports, Abrahamson was pressured to reduce budget estimates for the second half of the program, by the Joint Chiefs of Staff, who claimed that no large five- or even ten-year program, can expect a total budget of more than \$60 billion.

### **A crash program?**

LaRouche's proposal called for a "crash effort" to build the SDI. He predicted, upon the basis of the experience of the Apollo program, that such an effort would more than pay back its costs by the generation of new technologies which would spin off into the civilian economy. (It is calculated that minimally, America made back \$10 for every \$1 spent on the research needed to land an American on the Moon.)

In March of 1983, President Reagan also conceived of the SDI as a kind of Manhattan Project crash effort. It is this conception, more than anything, which has been whittled away over time. Costello described a later stage of the process, in the Oct. 6, hearing. He said: "SDI was initiated in Fiscal Year 1985 with a streamlined management approach [and] did not fall under the department's normal acquisition process." In other words the program was considered to be a crash effort. "But," he continued, "the cost projections were too high. . . . By February 1987, the program was brought into the normal acquisition process."

The budget figures for the Manhattan Project itself are a useful point of reference. In the first 10 years of the program, development of the atomic bomb cost the United States \$120 billion in 1985 dollars. This gave the United States unchallenged supremacy.

During the Second World War, this sense of mission orientation was not restricted to the Manhattan Project. In a recent account of the history of the Bechtel Company, *Friends in High Places*, author Laton McCartney reports on an exchange between a War Department spokesman and Sen. Harry Truman's subcommittee investigating the national defense program. Truman was forced to concede defeat in his attempt

to prove that Bechtel was wasting money in the construction of an oil pipeline to Alaska.

In answer to the question of what the original estimate of the cost of the project was, department spokesman Graham replied, "On war projects, I never make an estimate." The question was re-phrased; who made the estimate? The answer was, "None was made that I know of." Petty-minded would-be cost-cutters were defeated, because that was a war which Americans intended to win.

It is worthwhile remembering that despite this, or rather, because defense spending was mission-oriented rather than budget-bound, the U. S. economy was exceptionally healthy at the close of the war.

### **Soviet SDI deployment**

In the *Washington Times* Oct. 13, Caspar Weinberger wrote an article entitled, "SDI," in which he reiterated the strength of the Soviet research in anti-ballistic missile defense. Weinberger suggested, among other things, that remaining within the constraints of the ABM Treaty was not in the national interest of the United States. He optimistically projected that even despite lost time, the United States would be in a position to begin deployment of the SDI in the mid-1990s.

In this article, the former Secretary of Defense reiterated the Reagan vision of the Strategic Defense Initiative as a means of moving away from the insane policy of deterrence toward one of Mutually Assured Survival. He said, "SDI will play a central role in our defenses in the 1990s, if we go ahead with it with the firm resolution to deploy it as soon as possible. It provides a far safer way to keep the peace, moving the world away from the threat of Mutual Assured Destruction, and toward a greater reliance on defensive systems."

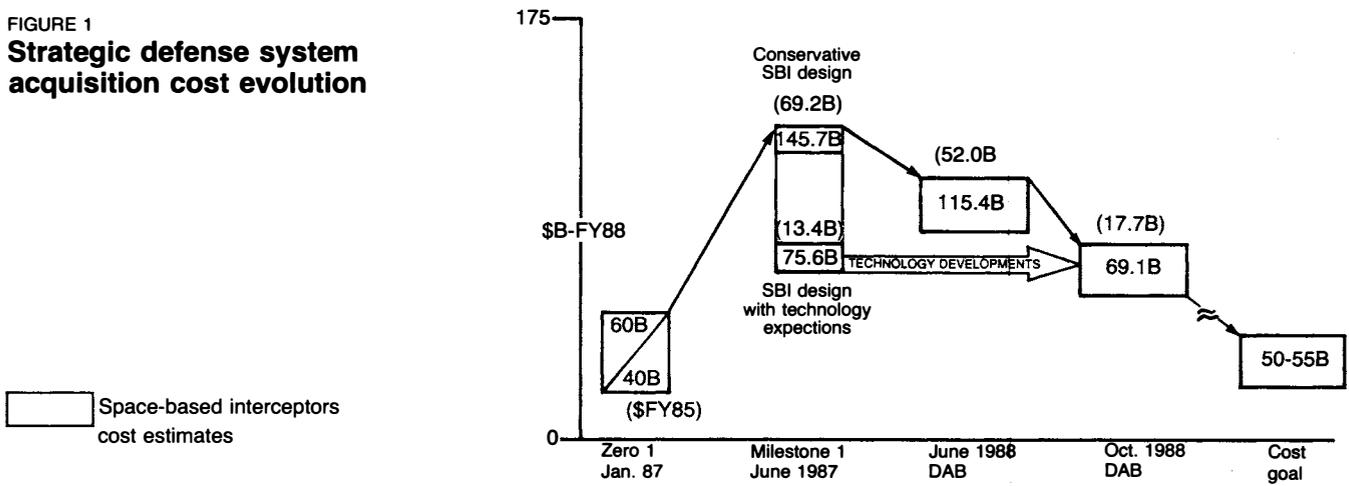
Weinberger pointed to the scale of investment by the Soviets in their own SDI, writing, "The U. S. S. R. is deeply involved in its own strategic defense initiative and has been for nearly two decades. The Soviets are doing advanced work on laser weapons, involving 10,000 scientists and engineers and costing about \$1 billion a year. The Soviets have already constructed several ground-based lasers capable of damaging our satellites. Overall, the Soviet Union has spent \$150 billion on all forms of strategic defense in the last 10 years alone while purporting to adhere to the Anti-Ballistic Missile Treaty, and loudly decrying any effort we make to acquire defense against their missiles."

Contrast Weinberger's statement of purpose of the SDI, and the documented extent of Soviet deployment, with the view of SDI being enforced upon the program by the Joint Chiefs of Staff. The testimony before the joint committee hearing on Oct. 6 by a spokesman for the Joint Chiefs makes it clear that their chief concern is protecting pet projects of their own which they feel are competing with the SDI for funds.

Truly it is tragic, when this is the prime concern of the military command of a nation.

FIGURE 1

**Strategic defense system acquisition cost evolution**



The following excerpt is from the testimony of General Herres.

“Phase I performance has been established at a level which in our judgment provides the minimum capability required to begin making a contribution to deterrence of Soviet strategic nuclear attack. We think of it, the Phase I requirement, that is, as a threshold beyond which a strategic defense system becomes a factor in the nuclear deterrence process. Now, there are other spinoffs of this requirement, I’m sure you will want to discuss some of those, one of which, of course, is a limited protection system, protection against accidental launch, protection against other kinds of threats. But the fundamental approach that we’ve taken in defining the goals and objectives and the operational usefulness of this system, is deterrence of Soviet nuclear attack.

“Phase I is not an objective system. It must be regarded as the first militarily useful step toward an objective system. That’s not to say, however, that an incremental approach to achieving the desired Phase I capabilities is inconsistent with the requirement. But rather, that one should not expect a militarily significant contribution to deterrence until the Phase I requirement can be met.”

The present best configuration of the first phase of the program emphasizes miniaturized, computerized antimissile missiles as the first possibility for defense. These would be the space-based smart rocks (to be followed by brilliant pebbles) described by Lowell Wood this past spring. In an interview for the San Jose, California *Insider*, run on the week of Sept. 15-21, Edward Teller is quoted as calling for immediate deployment of these smart rocks. This is not the cost-cutting Phase I deployment presently being considered. Even so, it is seriously flawed.

As our recent series of articles on the x-ray laser, following the release of the Teller/Woodruff correspondence has demonstrated, the SDI program is badly off track insofar as it is vectored toward priority development and deployment of kinetic energy weapons (KEWs), or, as they are sometimes known, kinetic kill vehicles (KKVs), as opposed to directed

energy weapons (DEWs). For example, the Zenith Star program has been placed on hold for the past seven months, while budget questions were being battled out. This is a spaced-based laser deployment, which, given the present state of U.S. rocket power, would have to be deployed in two stages. It is now scheduled to resume only in February of next year.

It is now absolutely clear that the x-ray laser can provide us with a defense capability against missiles both in their boost and midcourse phases of flight. Competent scientists in the field estimate that we could have prototypes of directed energy weapons developed within a five-year period. This would include the x-ray laser, nuclear-pumped ground-based lasers in the optical range, the free-electron laser, and some space-based chemical lasers. Such a profile would indeed achieve the goals specified in President Reagan’s original program, and with recent developments in adaptive optics, is now eminently feasible.

One can reasonably estimate that the Soviets will deploy 10 times as many decoys as reentry vehicles, giving the United States 10,000 objects as targets. Each such target will be viewed by approximately 10 sensors, from either space or the ground. This information will be fed to computers who will be required to make decisions on tracking of missiles, etc., in real time. This is a terrible vulnerability for the proposed KEW system.

Had the SDI been moving ahead at full steam toward the deployment of “brilliant pebbles,” EIR would have found it to be flawed, but there would have been reason to support such a first-phase deployment. The present restructuring suggests that it is the whole approach of subordinating the development of directed energy weapons to the deployment of anti-missile missiles, which should be scrapped. The time for compromises with second-best has passed. The Soviets are developing their own x-ray laser capability, and will possibly be capable of deploying it within the next several years. Why should we guarantee that our own system will be obsolete in advance of its deployment?