

EIR Science & Technology

The push for early deployment of the SDI

Carol White reviews a report issued on Dec. 15, by the George C. Marshall Institute, arguing for the early deployment of the SDI.

At this point the question of defense is being argued out in terms of the budget for fiscal year 1988. U.S. Defense Secretary Caspar Weinberger has requested a \$2.8 billion supplement to the Defense budget for fiscal year 1987, of which \$500 million would be for the SDI. Coupled with his 1988 budget request, which comes to a 3% increase, his request is less than modest. Indeed it is meager, when one considers the implications of what has been documented to be a major effort on the Soviet side to have their own ABM defenses in place within the next few years.

The issues addressed by the Defense budget are, of course, much broader than the funding of the SDI. The presently mandated level of the budget is so disastrously inadequate, that it lends cover for a treasonous faction within and without the government which argues for removing the U.S. nuclear umbrella from Europe, and at the same time reducing the conventional force strength.

Such a betrayal of America's European allies, is vehemently opposed by Weinberger. As Weinberger said, in testimony before the Senate Armed Services Committee on Jan. 12: "We could not live in a world where the Soviets have overrun Europe. The Soviets would like nothing better than for us to reduce our NATO support."

If NATO is allowed to dissolve, then obviously the question of the extension of the Strategic Defense Initiative to a Tactical Defense Initiative for Europe will become moot, because Europe will in effect have become a Soviet satrapy

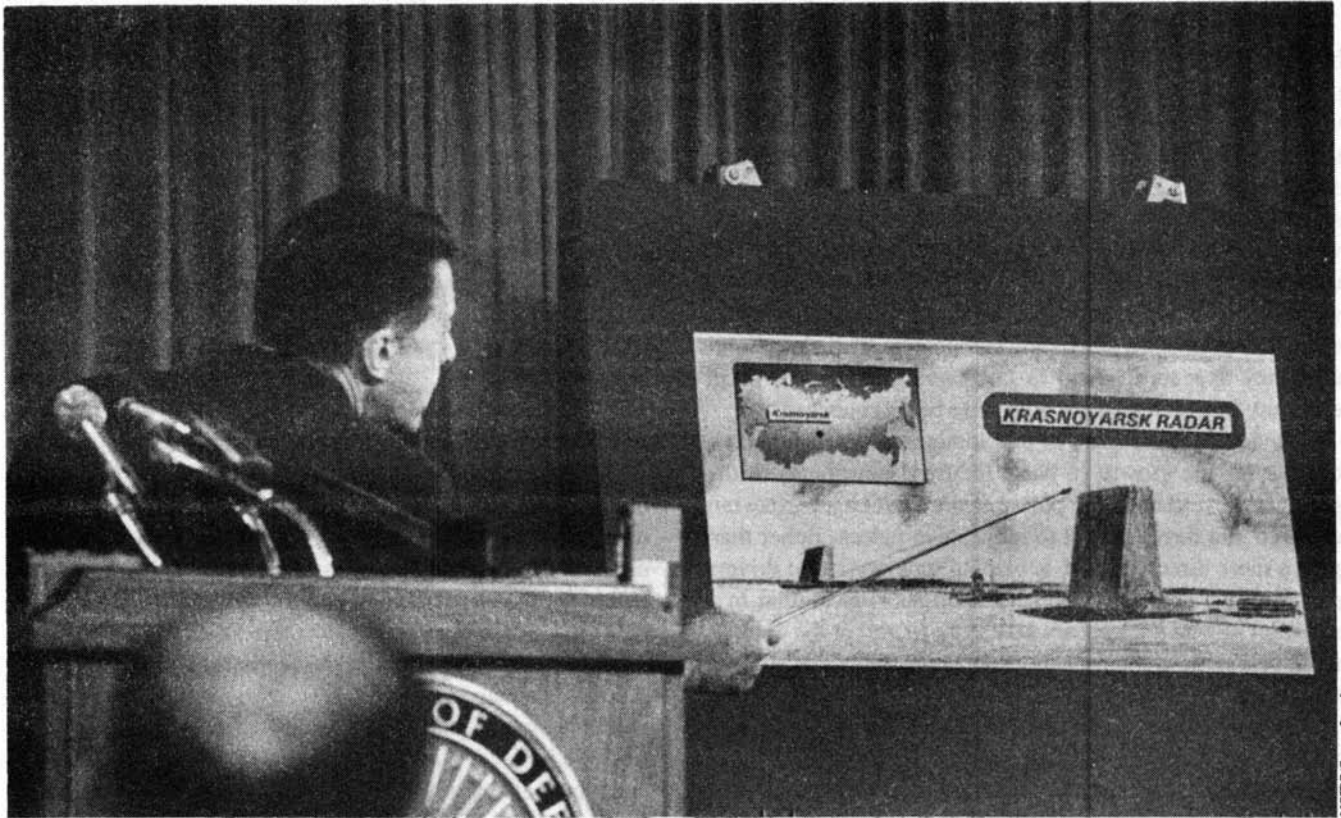
without a bullet having been fired.

There is an important faction—not least the forces centered around Lyndon H. LaRouche, but extending much more widely—which argues for a crash effort to deploy the SDI by the first half of the next decade. On the same day as Weinberger's testimony before the Senate, according to a United Press International wire, an unnamed senior Pentagon official announced that the first component of the Strategic Defense Initiative, a space-based defense system, would be ready for deployment by the early 1990s. This would be part of a "continent-wide" deployment, rather than the more limited concept of point defense being argued for by Zbigniew Brzezinski.

A scenario for early SDI deployment

As part of this effort to rally support for the SDI, on Dec. 15, the George C. Marshall Institute issued a report, documenting the necessity and feasibility of such an early deployment. While they discuss a scenario for deployment of the SDI which relies heavily upon non-nuclear, kinetic energy weapons rather than lasers—an approach we disagree with—they are correct on the question of the nature of the Soviet threat and on the fact that we can have a functioning ABM system within seven years, and an initial deployment within five years.

The Institute report was prepared by a panel which included John Gardner, of McDonnell Douglas Corporation;



NSIPS/Stuart Lewis

Defense Secretary Caspar Weinberger is trying to protect the Strategic Defense Initiative from the budget-cutters. Here he is shown briefing the press on Soviet progress in antiballistic-missile technologies, in Washington in 1985

Edward Gerry, who was chairman of the Boost-Phase Systems Concept Group of the Fletcher Panel; Robert Jastrow, former director of the Goddard Institute for Space Studies of NASA; William Nierenberg, a member of the Defense Science Board and the National Science Board; and Frederick Seitz, President Emeritus of Rockefeller University, and a former president of both the National Academy of Sciences and the American Physical Society.

The report argues for the necessity of a major U.S. effort for early deployment of the SDI, by citing the status of the Soviet effort. They warn of “particularly the construction of ABM production lines and a network of large radars,” which “indicate the Soviets have broken out of the ABM Treaty. The construction of these production lines and the Soviet radar network provide a base for a nationwide ABM defense, which violates Article I—the essence of the Treaty.”

Second, the Institute report attacks the near-disastrous capitulation by President Reagan to Soviet party boss Gorbachov at the Reykjavik pre-summit. Dr. Seitz issued a statement at the time of the release, which argues that even before the meeting the President was too willing to extend the ABM treaty. Since the Soviets have shown that they have no intention of observing any treaty agreements, and that they have repeatedly violated the ABM treaty, Seitz attacks the proposal because it would have significantly set back U.S. defense efforts.

Seitz’s statement was that, “At the summit, President Reagan offered a 10-year extension of the ABM Treaty in two five-year stages, coupled with a major build-down of offensive weapons. This would not compromise U.S. security in any degree if defenses against ballistic missiles cannot be built in less than 10 years, as is the widespread impression. However, if effective U.S. defenses can be put in place in less than 10 years, the extension of the ABM Treaty might then not be in the interest of the United States. A relevant question in deciding on the important matter of the ABM Treaty extension would be the extent to which the U.S.S.R. is going ahead with the development of its own ABM defenses outside the limits of the Treaty.”

The Institute findings are intended to demonstrate that: “Contrary to conventional wisdom about missile defenses, a space-based ABM system, placed on orbiting satellites, can be deployed as rapidly as any ground-based layer of defense. Since the space-based boost-phase system is the most important layer of defense, this technical finding is significant for the success of the U.S. defense.”

They propose a budget in the order of \$121 billion for the first stage of deployment of a whole system. This figure itself, while considerably higher than that proposed by Secretary Weinberger, is still below the actual amount needed (we would propose a minimal budget line of \$20 to 30 billion per year).

While the authors argue against the notion of a \$1 trillion budget needed to deploy the SDI, with the laudable enough purpose of defeating those who would use the budget as a weapon against the SDI, it is such stringencies that dictate a slower track for the development and deployment of directed-energy weapons, and therefore, a less effective SDI system. Another brake upon rapid development of directed energy weapons is the attitude of the aerospace industry itself. It is understandable, if not laudable, that the aerospace industry would prefer to sell the Defense Department on technologies which are extensions of existing technology. This shortsighted policy appears to them to guarantee them profits in an economy in which they are otherwise badly squeezed.

Obviously, the failure of this administration to support a climate for the growth of basic industry contributes to the problem; nevertheless the policy of the SDIO to contract out research and development to industry in pieces, rather than play a more directive role, is placing industry in the drivers seat, and the aerospace industry itself, is contributing to a situation in which it appears necessary to accept the deployment of kinetic energy weapons as the feasible goal for the first step of the SDI.

What is needed is a major retooling effort by industry, in order to mount a laser defense within five years' time. This requires a thorough retooling not only of machine tools, but of their research and development as a whole, so that the concepts being developed by the national laboratories are rapidly integrated into the working prototypes being developed by industry. Ironically, even without the impetus of the SDI, it is precisely this kind of longer-term thinking which is so successfully guiding Japanese investment policy, and allowing the Japanese to outstrip American productivity by an astounding rate.

The kind of ABM system described in the report, with the inclusion of lasers for boost-phase defense, would be extremely suitable for a fast track deployment in Europe, as an extension of European tactical defense as it is presently deployed, on the level of battle management, even though we would suggest that such a deployment could be ready in half the time suggested by the Institute report. For a strategic defense however, it is self-defeating to assume a two-stage development such that lasers are essentially put on hold in order to develop KKV's.

There is no reason why the x-ray laser, which has already been proved in principle, will not be deployable within five to seven years; and there is every reason to believe that the Soviets are working on the x-ray laser with such a time-frame in mind. We would suggest that the authors of the Institute report allowed themselves to be overinfluenced by the dictates of the aerospace industry, in their otherwise correct push for rapid deployment of the SDI.

The following are more detailed quotations from the Institute findings released in December:

"Schedules for initial deployment. Results of independent

analyses converge on an initial defensive system composed of three layers—boost-phase, late midcourse, and terminal. All layers of the initial system use kinetic energy weapons. Laser weapons are potentially effective for boost-phase and mid-course defense, but probably lag three to four years behind defenses based on kinetic energy weapons.

"Deployment of the full defense, including boost-phase, late midcourse, and terminal layers, can commence seven years after the decision to deploy, if streamlined management and procurement procedures are followed. If the decision to deploy is made in 1987, deployment of the full defense can begin in 1994.

"Schedule for Early Deployment of ERIS. Technology for the ERIS interceptor—an antiballistic missile intended for midcourse layer—is more mature than the weapons technology for the other layers of the defense, and has the promise of being available for deployment two years earlier. Deployment of the ERIS layer can commence in 1992, five years from the date of decision to deploy, if streamlined management and procurement procedures are followed.

"An incremental approach to deployment of the complete defense, starting with deployment of the ERIS layer in 1992, would be of considerable value. It would provide the earliest possible protection against accidental or irrational launches, and would also provide a useful degree of deterrence against limited attacks on key military sites.

"Business-as-Usual Schedule. The above timelines assume streamlined management and procurement procedures of the kind used in the Delta 180 experiment. That experiment was completed by SDIO in 14 months from initiation. Normal procedures would have taken twice as long.

"If management and procurement practices are conducted on a business-as-usual basis, deployment of the ERIS layer will not commence until the mid-1990s and deployment of the full 3-layer defense cannot commence until the late 1990s.

"Effectiveness. The level of effectiveness of the three-layer defense is calculated to be approximately 93 percent against a threat cloud of 10,000 warheads and 100,000 decoys."

An SDI for Europe

"The question of battle management is magnified in the case where reliance is placed on kinetic energy weapons. It has been estimated that there will be in all at least 30,000 items of debris floating around in midcourse which must be discriminated, in order to detect and deploy against active warheads. A satellite defense using kinetic kill vehicles (KKVs) would probably deploy at least 10,000 'smart bullets' or homing interceptors, placed upon 2,000 small satellites. (This problem is greatly simplified in the case of lasers—particularly as their frequency increases.) Minimally, at least 100 would be needed—but such a low figure does not take into consideration the redundancy which is desirable in the face of Soviet attack."