

The 'technology focus' of Strategic Defense

by Carol White

Gerald Yonas, chief scientist and assistant director to Lt. Gen. James Abrahamson at the Office of the Strategic Defense Initiative, speaking at a luncheon meeting of the American Institute of Aeronautics and Astronautics on Feb. 27, detailed Soviet violations of the Anti-Ballistic Missile treaty and stressed the pure insanity of the previous U.S. policy of "unilateral vulnerability."

He pointed out that it is definitely known that the Soviets have and are preparing the way for nationwide deployment of conventional ABM defenses and that they have a large infrastructure for developing more advanced types of beam-weapon defenses. Yonas suggested that when world leaders meet with Soviet leaders who complain about the SDI, they should ask the Soviets what they are doing in those large research buildings located at their missile bases.

He told the assembled guests that if the President's \$3.72 billion budget request goes through Congress, the SDI would be back on target, but he warned that any cuts would be dangerous. Last year's cut of \$400 million from the budget by Congress retarded the program to the degree that all of the goals set out by the 1983 Fletcher Commission could not be met. With a \$3.7 billion appropriation, Yonas said, there would be no financial barriers to the program proceeding at top speed. The strategy which he described was to begin by encouraging inventiveness and putting out a wide net for new ideas, testing everything that looks promising, while being prepared to discard those ideas which turn out to be losers, ultimately narrowing the focus to those technologies determined to be most promising. This, of course, is the opposite of the linear systems-analysis approach.

One of the goals of the project, he stressed, is to develop a defensive system which would have functional survivability against an attack. In short, planning for the system is taking into consideration that the system itself would be a major target of the enemy. However, he emphasized, taking a well deserved dig at Ashton Carter and the Union of Concerned Scientists, it was important not to overemphasize the potentialities for the enemy to defend against beam weapons. Such defenses can only be developed over time. While now, the mandate for the SDI is only for research and development, should they be asked to deploy a beam-weapon defense, it

would not be necessary to anticipate defensive responses that might take years to develop.

Yonas is confident that, given a mandate, the United States could have a deployable defense system much more quickly than is generally anticipated. Furthermore, he said, contrary to Gen. Danny Graham's High Frontier pretensions, such a system would not need to depend upon technology that is 10 or 12 years old.

Questioned about arms negotiator Max Kampelman's proposal that the first stage of a defense system would have to emphasize kinetic kill, Yonas denied that SDI was directed toward point or terminal defenses: "Our job is not to protect missile sites," he said, "but to kill missiles," and it is most important to do so in their boost phase.

Spinoffs

In answer to a question regarding the scale of the project in comparison to the Manhattan and Apollo programs, Dr. Yonas agreed that as many as 30,000 scientists might be employed. He doubts if that number of scientists was even available at the time of the Manhattan Project. Moreover, science and technology has greatly expanded the complexity of the program, the numbers of people, the number of different fields that are involved—aeronautics, chemistry, physics, electronics, software.

This program, he said, has a diversity of requirements that is far beyond anything that existed in the Manhattan Project or even the Apollo Project, ranging from very advanced, almost basic research to practical engineering problems. It has dimensions and features that are very hard to compare with any previous program.

One question focused on the cost-effectiveness of the SDI in light of productivity-boosting spinoffs to the economy. Yonas responded by referring to the analysis of Europeans on this point. Some of the Europeans whom he has talked to believe that what this country needs occasionally is a technology focus of some kind.

"I have heard them liken a technology focus—once we have that—to the awakening of a sleeping giant. They see the SDI as such a technology focus, that really marshals a lot of our creative energies to go in a certain direction. And they believe that such a technology focus creates an enormous spinoff in its wake.

"They fear being left out of that. You are beginning to hear various people speaking publicly about the fact that they would like to participate and participate fully." After joking that they would not mind such participation being at U.S. expense, Yonas asserted his agreement with the notion of a technology focus.

The United States, he added, when it talks to its allies, must realize the importance of not just consulting with them, but working with them: "We think that once we begin to work this technology and various technologies together, we will create a stronger bond strengthening the alliance."