

THE WHITE HOUSE

WASHINGTON

December 17, 1985

Dear Mr. President,

Beginning with your second, foreign-policy debate with Walter Mondale and, again, in many of your public comments before the Geneva talks, your repeated emphasis on "sharing" the fruits of the SDI with the Soviets has prompted me to explore the implications of that concept with our White House Science Council, Bill Casey and a number of defense experts. Before I conclude as your science advisor, I want to offer you my thoughts on this subject. I believe sharing the SDI represents an opportunity to bring about the new stability you seek and to banish the cobwebs of tortured logic that have encumbered so much of the public debate on strategic defense.

A trend of eroding stability began in the 1960s with the advent of the counter-force era -- the introduction of missiles so accurate that the opponent's hardened silos could be targetted with confidence. This new precision, combined with large numbers of warheads deliverable with MIRV'd missiles, ushered in the "window of vulnerability" and the attendant perception that a preemptive first-strike is possible.

Modernization of U.S. strategic forces was an essential step toward stemming -- but not toward repairing -- the eroding stability. Your SDI offers today the only opportunity to repair the diminished stability that counterforce weapons introduced. To fully appreciate the role of the SDI in this picture, one need only imagine a world where strategic defenses are prohibited. One could only attempt to stem the erosion, with no hope of repair. Without the SDI, the situation would be analogous to entering a competition with plans only to avoid losing, rather than planning to win!

Let me now be more specific about how SDI could be shared. And pardon my brief lapse into a technician's perspective.

Imagine strategic defenses to be divided into two types -- what I will call "global" and "sovereign".

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Global defenses are the main thrust of the SDI program, the so-called boost-phase defenses that are designed to destroy the missiles themselves, shortly after launch. The term "global" is chosen because all targets on the globe would share in the protection, wherever they may be -- whether Washington, Moscow, Peking or Baghdad. In contrast, sovereign defenses are those more traditional defenses -- terminal defenses -- that are designed to protect silos or, perhaps, cities. The U.S.S.R. is currently developing both types, whereas the principal emphasis of the SDI is to explore opportunities for the global, boost-phase defenses that could make ballistic missiles effectively obsolete by making them simply unreliable as delivery systems. And it is these global defenses that, to me, capture the essence of your original purpose for beginning the SDI, as well as providing tools that could be shared to repair the erosion in the nuclear balance.

You have proposed to share the technology of SDI, the components of SDI and, more directly, to share strategic defenses. I suggest that your goal can best be met by sharing the control of strategic defenses -- and by using the Summit discussions with Mr. Gorbachev to develop joint management of global defenses. And this could be put forth as a logical extension of Paul Nitze's Strategic Concept as the Joint Strategic Concept.

The objective of the Joint Strategic Concept would be to ensure that neither side perceives the adversary to possess a first-strike capability. The tools of joint management would not be the defenses themselves, but rather their control mechanisms. Let me elaborate.

Any global defense system presently envisioned would comprise a number of elements, including those for launch detection, aiming and tracking, battle management and interception. But the control mechanism would require an enablement switch, presumably under control of the chief executive -- you. That is, you would possess the authority to enable those defenses if and when heightened tensions or indications of actual attack preparations should be indicated. Upon enablement, control would be transferred to computers, whose instructions are codified as "software" -- a set of pre-defined instructions that determine the nature and extent of a missile attack and how best to deploy the

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defenses to negate the attack. A U.S.-U.S.S.R. project to jointly develop the software to use their and our global defenses to destroy any missiles that represented an act of aggression, be they U.S., U.S.S.R. or third-country in origin, would ensure that any act of nuclear aggression would be deterred. Further, accompanying a proposal for joint oversight or joint development of the control software with a proposal to share the enabling switch itself -- so that you, Mr. Gorbachev or other national leaders could, if threatened, enable those shared defenses -- would serve to place ballistic missiles in a category with smallpox. Just as sharing smallpox vaccine has made smallpox virtually obsolete, sharing global missile defenses could render ballistic missiles obsolete.

Such a proposal, radical as it may at first appear, can be achieved simply by recognizing that defenses are not threatening. Each side could continue to possess and control its own defenses while achieving additional benefit from participating in joint management of all global defenses. That is, each side could only benefit from compliance. And compliance could be readily verified by random tests. A number of test launches, simulating real attacks, would permit any party to enable the global defenses and to exercise the defenses to verify the jointly developed control software. Thus, sharing defenses in this manner can be accomplished safely, without risking our own security. And the fundamental difference between the non-aggressive nature of defenses and the more threatening nature of our present dependence on offense for deterrence would be starkly revealed.

I believe the lack of appreciation of the significance of your proposal to "share SDI" arises from an emphasis upon not losing, rather than upon your emphasis upon seeking stability. And it is further encumbered by "fuzzy" thinking about arms control, resulting from decades of failed expectations, and from inattention to just how easily and practically sharing could be accomplished. Your own recent accomplishments at Geneva have shown to many skeptics that a new beginning in arms control is possible. You have refocused the negotiations onto the essential, but often obscured, goal of achieving nuclear stability. The message that I received was that you are committed to restoring a stable balance and to reducing the awesome role that nuclear weapons play today

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in our view of the world -- not just in a relative-number-of-missiles game. In your future discussions with Mr. Gorbachev, sharing SDI can, I believe, maintain focus on that sole essential -- stability. It can allay, or even negate his expressed fears of an eventual U.S. first-strike capability. And it can capture the support of free people at both ends of the political spectrum by clearing away the cobwebs that flexible response, SALT I, the ABM Treaty and a generation of failed expectations for arms control have woven.

Mr. President, I believe your offer to share SDI with the Soviets and further, with the world, would both strike at and remedy the moral dilemma that the nuclear age presents and that the counterforce era has worsened. I also believe that the present emphasis upon developing global, or boost-phase, defenses to destroy whole missiles shortly after launch, rather than to attempt to intercept warheads among thousands of decoys during just seconds before they strike, offers us the opportunity to manage jointly with the U.S.S.R. the inevitable obsolescence of the very ICBM's that have so eroded the stability our citizens expect. You have an opportunity to retain the arms control focus where it belongs -- on stability -- and to step up to the line and truly manage the nuclear dilemma.

With great respect,



G. A. Keyworth, II

The Honorable Ronald Reagan
The President of the United States
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P.S. It has been an honor and a pleasure to serve you, and to be even a small part of what Dave Packard called "possibly the most important act of genuine leadership in the twentieth century" -- the SDI. I only regret that I was unable to convince Patti that nuclear energy is safe and reliable. Perhaps my successor could be more convincing.