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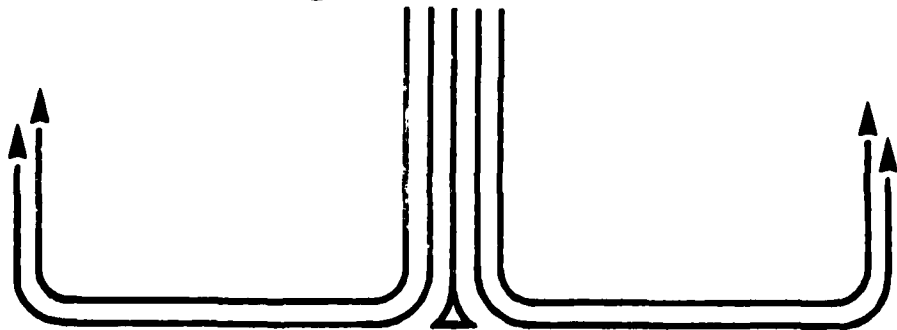
## STUDENT REPORT

STRATEGIC OFFENSE VS STRATEGIC DEFENSE:  
GOING BACK FOR THE FUTURE

MAJ CHARLES E. PHILLIPS      REPORT #86-2005

*"insights into tomorrow"*

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requirements for graduation.

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## PREFACE

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The Strategic Defense Initiative (SDI), started by President Reagan, was originally chartered to explore key technologies permitted by the Anti-Ballistic Missile Treaty so future Presidents and Congresses will have the technical options to start on development and deployment of a strategic defense system. This article for publication establishes the fact any decisions to reduce current or future funding for strategic offensive nuclear weapons, prior to actual strategic defense system deployment, are premature and could seriously impact our ability to deter nuclear war. It also addresses SDI's impact on deterrence and uses historical examples to show it is too early to reduce funding for strategic offensive forces in anticipation of strategic defense system deployment. SDI technology needs time to mature and must not be pressured to provide a jury-rigged solution to our nuclear problems. While it is maturing, we must preserve our nuclear deterrent by continuing to upgrade and modernize our strategic offensive forces.

I would like to thank Major Fred Chapman for his invaluable and patient assistance in preparing this manuscript. Subject to clearance, this article will be submitted to Air University Review for consideration.

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## ABOUT THE AUTHOR

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Major Charles E. Phillips has served in a wide variety of assignments ranging from squadron level to the Directorate of Missiles at Headquarters Strategic Air Command (SAC). His initial assignment was to Minot AFB, North Dakota as a nuclear missile launch officer. This was followed by a tour at Vandenberg AFB with the First Strategic Aerospace Division (1 STRAD). While at 1 STRAD, Major Phillips served in the Directorate of Test and Evaluation where he launched over 35 Minuteman Intercontinental Ballistic Missiles (ICBMs) in support of SAC's Operational Test and Evaluation program. His subsequent assignment was to Headquarters SAC where he served as the Minuteman Program Manager for ICBM flight test.

Major Phillips holds a bachelors degree in Recreation and Park Administration from Texas A&M University in College Station, Texas. He also has a masters degree in Business Administration from Golden Gate University in San Francisco, California. His military education includes Squadron Officers School, Air Command and Staff College and the National Security Management course. He is married to the former Grace Y. [REDACTED] from Laredo, Texas.

## STRATEGIC OFFENSE VS STRATEGIC DEFENSE:

### GOING BACK FOR THE FUTURE

The tension was high in the Cabinet Room of the White House as the Budget Officer handed the revised 1990 budget figures to the President. The advisory group members were silent as the President reviewed the figures. For the last three weeks, the budget figures had been reworked several times until all the budget decisions had been made except one. Still needing Presidential approval was how much to budget for continued development of the Strategic Defense Initiative (SDI) started by his predecessor, President Reagan. The technology required to develop a strategic defense system looked promising and initial studies had been progressing steadily. Also progressing steadily was the military buildup President Reagan had started. The new B-1B bombers and Peacekeeper missiles were on alert and the new small Intercontinental Ballistic Missile (ICBM) was in developmental testing. Now, SDI proponents were pushing for more money to develop a strategic defense system. The problem facing the President was where to obtain the additional funding required to build a strategic defense system. Should he increase SDI funding and decrease funding for strategic offensive nuclear forces modernization in anticipation of a strategic defense system being deployed? If you were a member of the President's advisory group in the Cabinet Room, how would you advise the President?

If I were advising the President in this meeting, I would tell him any decisions to reduce current or future funding for strategic offensive nuclear forces, prior to actual strategic defense system deployment would be

premature and could seriously impact our ability to deter nuclear war. I would explain President Reagan originally chartered SDI to explore key technologies permitted by the Anti-Ballistic Missile (ABM) Treaty so future Presidents and Congresses would have the technical options to decide whether to start on development and deployment of strategic defense system.<sup>1</sup> If feasible, SDI could then provide a system to destroy enemy ICBMs before they reached their targets. However, prior to reducing funding for strategic offensive nuclear forces, we must know whether or not SDI is feasible. SDI technology needs time to mature and must not be pressured to provide a jury-rigged solution to our nuclear problems. President Reagan recognized this when he said in his March 1983 speech:

It will take years, probably decades, of effort on many fronts. There will be failures and setbacks just as there will be successes and breakthroughs. And as we proceed we must remain constant in preserving the nuclear deterrent and maintaining a solid capability for flexible response.<sup>2</sup>

If we are serious about developing a strategic defense system we must "stay the course" President Reagan set for us. A premature decision to reduce current or future funding for strategic offensive nuclear forces and early reliance upon untested SDI technology could cripple any future nuclear deterrent we are now planning.

Historically, deterrence has kept the nuclear peace between the US and the Soviet Union. George Santayana, the American poet said: "Those who do not remember the past are condemned to relive it."<sup>3</sup> Using historical examples, I will state what I believe will be the future impact of SDI on deterrence. Also, US history contains several examples where decisions were made to use

or not use new technology without fully considering the future impacts of the decisions. In this article, I will discuss three: World War II strategic bombing without fighter escort, cancellation of the mobile Minuteman program and dismantling of the US Safeguard point defense system. I believe parallels exist between these past decisions and future decisions to be made concerning SDI.

President Reagan's term ends in 1988 and future prospects for SDI after then are uncertain. What is certain though, is the pressure to expand SDI programs will come from various special interest groups. The fact the concept of strategic defense has emerged stronger after years of "vicious attacks" testifies to its inherent importance and promise.<sup>4</sup> As a result of this, future Presidents may feel pressured to reduce current or future funding for strategic offensive nuclear weapons to increase funding for SDI. Pressure will most likely come from defense industry lobbyists who have obtained the government research business required to verify the feasibility of SDI concepts. Pressure may also come from scientific groups who recognize the technology spinoffs which may occur as a result of an in-depth government financed research program. The end result may be future administrations are prematurely forced into the position of deciding what is more important: increased reliance on the strategy of retaliatory deterrence or a gamble on a technological breakthrough making some nuclear weapons obsolete. Should future Presidents continue funding strategic offensive nuclear weapons modernization at the expense of strategic defense; or should strategic offensive weapons programs be reduced so strategic defense funding can be increased? I believe the answers to these questions already exist and can be found by going back into the past to see what the future could hold.

Since 1945, the United States has relied upon the concept of retaliatory nuclear deterrence. Deterrence in this context means any potential adversary must be persuaded or convinced the risks and costs of attacking the United States will exceed any perceived gains.<sup>5</sup> The question of what has deterred the Soviet Union in the past has been the subject of speculative debates. However, the fact remains deterrence has worked and there has never been a nuclear conflict between the United States and the Soviet Union. Deterrence maintains stability as long as the infrastructures of each side remain vulnerable to the destructive force of the other.<sup>6</sup> If the United States develops a strategic defense system first, the stability of the system would be endangered by putting the infrastructure of the Soviet Union at risk. Historically, the United States has not used this type of superiority as a club to force the Soviet Union into concessions with respect to nuclear arms. The historical fact is that even when the United States had superior nuclear arsenals, we did not use them to prevent Soviet development of corresponding weapons, nor did we use them to resolve crises such as Berlin or Korea.<sup>7</sup> Although the United States may not exploit a SDI advantage, would such a system add to the concept of deterrence as we know it today?

Deterrence is a multi-faceted concept which relies on the threat of retaliation as its central theme.<sup>8</sup> Clearly, any SDI system could frustrate Soviet war plans by reducing the number of nuclear weapons that would actually strike the United States. If Soviet weapons are targeted against United States nuclear forces, then, any such weapons intercepted and destroyed by a strategic defense system will increase the probability of survival for United States nuclear forces. If more of our nuclear forces survive, then the threat of retaliation still exists for the other side. In this context, a strategic

defense system does add to deterrence by preserving the warfighting capability of our nuclear forces. However, SDI acts only as a shield and does not increase the megatonnage of any of our surviving nuclear weapons. While SDI doesn't increase US megatonnage, it does act as a force multiplier. SDI will accomplish this by reducing the number of Soviet nuclear weapons penetrating our defense shield and by allowing more US nuclear weapons to survive.

Even with SDI as a force multiplier, the question of whether or not the remaining weapons are enough to force the Soviets to end hostilities still exists. In his book High Frontier, Lieutenant General Graham makes the analogy SDI is like a bulletproof vest, in it keeps others from killing us.<sup>9</sup> SDI may act as a bulletproof vest, but I believe there is not a mugger in all of New York City afraid of an unarmed policeman in a bulletproof vest. What good is a bulletproof vest to a policeman if he doesn't have the force to back it up? If deterrence fails, SDI cannot retaliate against an aggressor. If deterrence fails, we must have the means to terminate the conflict on terms favorable to the United States. In pointing this out, I do not mean to infer SDI should not be developed. SDI will enhance the ability of the United States to conduct its future affairs in a multipolar nuclear world. If SDI can overcome the technical barriers, it could act as a technological equalizer against a growing Soviet nuclear force.

The technology required for an effective strategic defense system is in the research phase.<sup>10</sup> By effective, I mean a system capable of destroying enough attacking ICBMs to enhance the overall survivability of our nuclear forces while maintaining our capability to retaliate. To be effective, the system does not have to be leakproof and it may be unrealistic to levy such a technical requirement upon potential systems. Research studies should stress

the use of leading edge technology in designing potential systems and solving SDI technical problems. The United States has accomplished this in the past with amazing results. The development of solid fueled ICBMs and the manned space program are just two examples where "Yankee" ingenuity conquered supposedly insurmountable technical barriers.

However, there are other past examples where "Yankee" decision making was not a success when a new weapon system was introduced. In the past, some decisions to use or not use new technology have not taken into account a concept I call "future vision." By future vision, I mean the capability or foresightedness to examine the future impacts of a decision or course of action taken in the present. Although I do not believe anyone can predict the future, I do believe we should attempt to thoroughly examine the possible future results of decisions made today. Future vision, I believe, should be a critical portion of any decision process and is becoming more important in today's technologically complex world. If the future impacts of a decision are not thoroughly examined, the technological realities of today's world may completely negate the course of action taken. United States' history is full of examples where future vision was not used, and SDI must not become another one.

SDI is not the first concept designed to revolutionize the art of warfare and will probably not be the last. The danger in SDI is in the fact it is an easy to understand concept that can be mistaken as a cure-all for nuclear warfare. If SDI is relied upon too heavily prior to its becoming a useable and executable concept, the results of a mistake could cost us our freedom. In the past, there was always time to recover from the results of a hastily made decision involving the reliance on and use of new technology. In

today's nuclear world there will not be enough time to recover. In World War II and more recently, decisions were made regarding the use of new technology which did not take future vision into account.

The New York Times on November 11, 1932 contained an article titled The Bomber Will Always Get Through. The article reported the remarks made by then British Prime Minister Stanley Baldwin in the House of Commons. Prime Minister Baldwin stated, "The bomber will always get through, and it is very easy to understand if you realize the area and space."<sup>11</sup> In saying this, Prime Minister Baldwin provided the background for a faulty decision made by the Army Air Forces in 1942 concerning precision daylight bombing without fighter escort. The Army Air Force believed the bomber was capable of operating without fighter defenses.<sup>12</sup> This belief was based upon an over-optimistic view of the ability of the manned bomber to fight its way to the target using its superior firepower and flying in large formations.<sup>13</sup> The manned bomber was perceived as the ultimate strategic weapon that could function without fighter escort in broad daylight.<sup>14</sup> This view was reinforced with limited operational testing and experience.

On August 17, 1942 the 97th Bombardment Group flew the first American heavy bomber mission from England. Twelve B-17s, escorted by Royal Air Force (RAF) fighters, attacked the marshalling yards at Rouen-Sotteville in France. The bombers flew to their targets and bombed accurately against slight opposition.<sup>15</sup> After this mission, the Americans flew ten additional missions--all with RAF fighter escort. Only two B-17s were lost during the eleven missions and the bombing results were impressive. Based on these early missions, the decision was made to proceed with daylight precision bombing deep into German territory without fighter escort.

In August and October of 1943, the Eighth Air Force carried out bombing missions against the ball bearing plants at Schweinfurt, Germany without fighter escorts. Although the ball bearing plants were heavily damaged, the costs in American lives and equipment was enormous. On the August mission, 36 out of 230 bombers were shot down. The October mission proved even more costly. During this mission, 62 out of 228 bombers were lost, 138 were damaged and six hundred crewmen were killed or missing in action.<sup>16</sup> The American forces could not sustain such losses and continue to be a credible force. As a result, the Army Air Force reversed its decision on deep penetration by bombers into enemy territory until long range fighter escort could be obtained. In WW II, the decision not to use new fighter escort technology actually sent Americans to their deaths and lacked future vision. More recently though, similar decisions have been made that have not cost any lives, but have adversely impacted today's US defense posture.

On February 1, 1961 the first successful flight of a Minuteman missile occurred from Cape Canaveral.<sup>17</sup> This launch verified the technology of our current Minuteman ICBM force and started it on the way toward deployment. The original operational concept for the Minuteman force was for deployment in both fixed silos and mobile land based locations. The mobile version of the Minuteman system was intended for deployment aboard railroad trains. The concept of a mobile ICBM captured the imagination of a great number of Air Force officials and a working missile train was built consisting of fourteen cars.<sup>18</sup> From June to November 1960 the train was tested extensively and the feasibility of the concept was proven. However, due to unexpected high costs and some problems with the railroad unions, the Kennedy administration killed the mobile Minuteman plan.<sup>19</sup> In lieu of a mobile Minuteman, three additional

squadrons of fixed silo versions were added to the deployment plan. If a mobile Minuteman weapon system had been deployed as originally planned, I would now argue that a portion of today's land based ICBM force would not be as vulnerable to the increased accuracy and yield of the Soviet's new generation ICBMs. I base this argument on the fact the United States is now trying to develop a mobile ICBM to counter the increased accuracy and yield of Soviet ICBMs and the resulting increase in vulnerability of our fixed silo based ICBMs. More importantly, the Air Force could have gained valuable experience in operating a mobile system which could have been applied to the small/relocatable ICBM now under development. Although the decision to cancel mobile Minuteman may have been cost-effective, I believe it lacked future vision and has adversely impacted today's defense posture. Dismantling of the US Safeguard point defense system is another example of a decision adversely affecting today's defense posture.

Point defense systems are less expensive alternatives to anti-ballistic missile (ABM) area defenses.<sup>20</sup> Point defense concentrates on defending a small well defined area instead of a large area as in the case of an ABM defense system. For example, a point defense system would defend small areas such as missile silos. An ABM defense system would defend an area the size of Moscow or Washington, DC. Point defense systems make sense under the concept of a retaliatory nuclear deterrence.<sup>21</sup> A missile silo point defense system would show the Soviet Union we are serious about preserving our nuclear forces for a retaliatory strike and may not use them as a first strike weapon. Point defense systems do away with the problem of deploying more nuclear weapons in response to increases in nuclear weapons by the other side.<sup>22</sup> The United

States dismantled its only point defense system in 1976.<sup>23</sup> The system was dismantled because it was considered ineffective against Soviet Multiple Independently Targeted Reentry Vehicles (MIRVs) and not worth the costs of maintaining such a marginal defense system.<sup>24</sup> I believe this decision lacked future vision. If the US had kept the point defense system active, it would have still enhanced the overall effectiveness of our strategic forces by further complicating the Soviet Union's targeting processes. Even though we may have thought the system ineffective, it was another element the Soviet war planner would have to consider in his war planning. Just as we have to account for the Soviet ABM system deployed around Moscow, the Soviet planner would have had to account for the United States defense system by allocating more nuclear weapons to destroy the missiles it protected. Also, if we had kept the system, the United States would have gained operational experience in operating and maintaining a defensive system. If we had this experience, the questions now being raised of how to balance strategic defensive forces with strategic offensive forces may have been easier to answer. By examining past decisions we can determine a course of action for the future.

Future Presidents and Congressmen will be faced with determining a course for SDI. Although I have engaged in a little "Monday morning quarterbacking" by saying past decisions lacked future vision, I believe parallels can be drawn from these decisions and the possible courses for SDI to follow. WW II strategic bombing, the mobile Minuteman, and point defense systems are several examples of decisions made without fully testing the concepts or fully considering the impacts of the decision. As military officers, it is our responsibility to fully evaluate today's decisions and provide a realistic

forecast of where those decisions may lead us in the future. General H. H. "Hap" Arnold recognized his duty to the future when he said:

Present equipment is but a step in progress, and any Air Force which does not keep its doctrines ahead of its equipment, and its vision far into the future, can only delude the nation into a false sense of security.<sup>25</sup>

Any decisions to reduce current or future funding for strategic offensive nuclear weapons prior to actual strategic defense system deployment, will delude the nation into a false sense of security. SDI technology is new and more time is required for the technology to mature. While it is maturing, we must preserve our nuclear deterrent by continuing to maintain, upgrade and modernize our strategic offensive nuclear forces. By doing this we will provide the near term necessity of a viable warfighting capability and ensure the long term goal of national security.

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