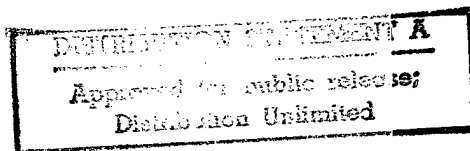


April 18, 1991



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FOR STRATEGIC DEFENSE: A NEW STRATEGY FOR THE NEW GLOBAL SITUATION

INTRODUCTION

The Persian Gulf War has changed the political backdrop for Congress's annual debate over funding of the Strategic Defense Initiative – or SDI. Live TV broadcasts and countless replays of deadly *Scud* missiles screeching over the skies of Israel and Saudi Arabia, and then *Patriot* missiles soaring up to destroy them, brought home to Americans, for the first time perhaps, that America needs effective defenses against possible missile attacks. No congressman or senator now can afford to be seen as opposed to missile defense. The central question of the SDI debate long had been whether the technology worked and thus whether it was feasible to deploy such defenses. This question now has been answered resoundly in the affirmative.

The SDI debate now shifts to what kind of defenses are best and when they will be built. This shift in debate itself is the most significant victory for proponents of strategic defenses since Ronald Reagan launched the SDI program on March 23, 1983. It now is up to George Bush to take advantage of this opening to ensure that America can defend itself from missile attack by the turn of the century.

Changing Tactics. Already SDI critics are changing their tactics in preparation for the new debate over SDI. Some are masking their opposition to SDI by expressing strong support for tactical missile defenses like *Patriot*, which can defend only against short-range missiles. Others are backing extremely limited strategic defense deployments that conform to the terms of the increasingly outdated 1972 Anti-Ballistic Missile (ABM) Treaty – a treaty specifically designed to prevent the United States or Soviet Union from building effective defenses.

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specifically designed to prevent the United States or Soviet Union from building effective defenses.

SDI backers, for their part, will be faced with the task of presenting the issue in as stark terms as possible. Neither tactical defenses like *Patriot* nor the ABM Treaty-compliant systems now championed by SDI critics can credibly defend American territory against missile attacks. The question that SDI supporters must press the program's detractors to answer is a straightforward, unambiguous: "Yea or nay on effective missile defenses?"

The focus of the new SDI debate will be Bush's strategic defense proposal known as G-PALS, for Global Protection Against Limited Strikes. G-PALS pares back America's SDI plans to meet the fiscal and military requirements of the 1990s. Unlike Reagan's SDI program, designed to disrupt a massive Soviet surprise attack involving thousands of incoming missiles, G-PALS will give America — and its allies — a near-perfect defense against limited or perhaps accidental attacks by up to 200 missile warheads. G-PALS then cuts the proposed cost of SDI from \$53 billion to \$41 billion over ten years. This puts SDI well within the cost-range of other important defense programs — less than the Air Force's B-2 *Stealth* bomber and comparable to the mobile *Midgetman* missile system.

To push forward with G-PALS, Bush needs a strategy that frames the missile defense debate in clear-cut terms: "For it or against it." To advance his missile defense agenda, Bush should:

♦ ♦ **Ask Congress for a straight up-or-down vote on deploying strategic defenses in the 1990s.** Absent a clear mandate to deploy defenses against ballistic missiles, it is likely that opponents will continue to limit missile defense programs strictly to research and development.

♦ ♦ **Fight attempts to split the SDI program.** Congressional critics of SDI have sought to derail the SDI program by dividing it into different functions. Example: separating short-range, or "theater," missile defenses from strategic defenses capable of defending U.S. territory; and limiting funding for some of the most critical, and promising, elements of an effective SDI system, including *Brilliant Pebbles* space-based interceptors. Bush should stop these efforts to kill the SDI program piece by piece by vetoing any legislation that divides the program.

♦ ♦ **Set a two-year deadline to complete negotiations with the Soviet Union to modify the ABM Treaty.** The U.S. cannot deploy G-PALS or any other effective anti-missile defenses until it modifies or withdraws entirely from the 1972 Anti-Ballistic Missile Treaty. This nearly two-decade old accord, drafted in the chilliest of the Cold War years, virtually bans long-range missile defense. If Moscow does not agree within two years to modernize and update the Treaty to allow the testing and deployment of credible SDI systems, Bush should withdraw from the Treaty, as he is allowed to do under the treaty if he gives six months' notice. Bush rightly could explain that the treaty has become an anachronistic relic of the Cold War.

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◆ ◆ Reorganize the Strategic Defense Initiative Organization (SDIO) to ensure quick deployment of G-PALS. All research and development programs associated with G-PALS, including *Brilliant Pebbles* space-based interceptors, the Ground-Based Interceptor (GBI), *Arrow*, and *Patriot*, should be consolidated into one office within SDIO. Bush should instruct this office to manage its programs with an eye toward the deployment of G-PALS by the end of the decade.

THE CHANGING STRATEGIC ENVIRONMENT

Bush's new G-PALS proposal switches the focus of SDI from a massive, calculated nuclear strike from the Soviet Union to missile strikes that are smaller and potentially less destructive, but also more likely. These new threats to America and its allies come from the spread of missile technology to increasing numbers of Third World countries including Libya, North Korea, and Syria, and the possibility that spreading political turmoil in the Soviet Union could lead to an unauthorized or accidental Soviet missile launches.

Iraq's *Scud* missile attacks against Israel and Saudi Arabia during the Gulf War were America's first warning that the nature of warfare, even in the Third World, is becoming ever more deadly. The U.S. now projects that 24 Third World nations will have ballistic missiles by the year 2000.¹ Given the prospects for regional military conflicts from South Asia to South America, the Gulf War may well be a frightening indication of conflicts to come. America must be prepared to meet these threats.

Demise of Deterrence? "Deterrence," or the concept that missile strikes are best prevented through the threat of retaliation rather than by defenses, is the bedrock argument of those who oppose missile defense. Missile defenses, they argue, only muddy the waters by giving a false confidence to those who possess the defenses. The notion of deterrence of course has some logic when applied to the actions of a rational leader in full command of his forces. This may have been true of the U.S.S.R. until recently. But the notion that deterrence can protect America increasingly is divorced from the real world in which America must survive. Iraq's Saddam Hussein fired his missiles at Israel and Saudi Arabia in full knowledge that he was likely to suffer retaliation in kind. Defense with *Patriot* missiles, not deterrence via counterthreats, was the key to countering the *Scud* threat.

Similarly, political turmoil in the Soviet Union brings into question the value of a strategy based solely on offensive nuclear deterrence, rather than on a strategy that combines deterrence with defenses. Even as the Soviet Union continues to modernize its awesome strategic nuclear arsenal, daily it

1 Department of Defense, "Briefing on the Refocused Strategic Defense Initiative," February 12, 1991.

becomes less clear who will control this force as turmoil spreads through Soviet society, including the restive Soviet military. Soviet military leaders recognize this potentially catastrophic development. Soviet Chief of Staff General Mikhail Moiseyev tried to reassure the West last September 27 that "...in those areas [of the Soviet Union] where the situation does not fully correspond to the concept of national security, [nuclear] warheads have been put in a more secure place."² Moiseyev's statement confirms the problem. If, in fact, control over Moscow's nuclear arsenal is in danger of fragmenting among various political factions within the Soviet military, the risks of an accidental or unauthorized launch of a nuclear-tipped missile rise accordingly.

Neither deterrence nor defenses can prevent an accident or stop a rogue commander operating outside central control. Defenses, however, can prevent the accidental or desperate act from leading to the destruction of an American city, and perhaps a wider nuclear war.

WHAT IS G-PALS?

G-PALS is designed to provide the U.S. and its allies with near-perfect protection against the smaller-scale strikes likely from a Third World foe or a fragmented Soviet Union. It will be able to rebuff missile strikes of up to 200 warheads aimed at the U.S. from anywhere in the world with near 100 percent confidence.

This new mission requirement stands in contrast to the mission assigned to the "Phase I" SDI system developed during the Reagan Administration. That system was meant to break up a deliberate attack on U.S. military targets by thousands of Soviet warheads. Although the military requirements established for SDI in the Reagan Administration are classified, it has been reported that the system would have been able to shoot down 30 percent of all Soviet warheads in a first strike and 50 percent of the warheads carried on the SS-18 Satan missile, the most dangerous and accurate in the Soviet arsenal.³

² Michael Dobbs, "Soviet Says Warheads Moved From Ethnic Sore Spots," *Washington Post*, September 28, 1990, p. A-1.

³ Steven A. Hildreth, "The Strategic Defense Initiative: Issues for Phase I Deployment," *CRS Issue Brief* (Washington, D.C.: Congressional Research Service, 1990) p. 4.

The Pentagon officially still retains the military requirement for a full Phase I SDI system as a long-term goal for U.S. ballistic missile defenses.⁴ If necessary, G-PALS later could be expanded through the deployment of additional interceptors to meet Phase I requirements. And G-PALS too will deploy systems, like *Patriot*, to defend America's allies and American troops in the field against attacks by short-range missiles, technically known as "tactical" or "theater" ballistic missiles.⁵

G-PALS will consist of anti-missile systems now being developed by the SDI program, but G-PALS generally will need fewer of them. The number of space-based interceptor missiles will be reduced from over 4,000 in the Phase I plan to 1,000 in the G-PALS plan. The number of ground-based interceptors will be halved from 1,600 to 800.

While the precise design or architecture of G-PALS still is under discussion, a deployed G-PALS system probably would include:

1,000 Brilliant Pebbles interceptors.

Brilliant Pebbles interceptors are tiny satellites designed to track, attack and destroy an enemy missile as it rises through the atmosphere, or in what is known as its boost phase. Each *Brilliant Pebble* is autonomous. Each has its own on-board sensors to identify targets, a computer system for processing information, and a propulsion system to speed it toward a target.⁶

Brilliant Pebbles destroy their targets by "kinetic energy," that is, by smashing into them at high speed. If deployed in the proper orbit, *Brilliant Pebbles* can counter ballistic missiles with ranges anywhere from about 300 miles to intercontinental distances. Missiles with ranges below 300 miles do not climb above 62 miles and thus do not reach altitudes high enough to become vulnerable to space-based *Brilliant Pebbles* interceptors. During the Persian Gulf War, Iraq's *al-Hussein* and *al-Abbas* missiles, with ranges of 375 and 550 miles, would have been vulnerable to *Brilliant Pebbles*.

To provide a similar level of protection absent space-based weapons, the U.S. would have to deploy tens of thousands of ground-based anti-missile weapons on the territory of its allies. This would be extraordinarily expensive since each *Patriot*, for example, can defend an area of only about 40 square miles.⁷ There, of course, also may be times when the deployment of ground-

4 General Colin L. Powell, "Statement of the Chairman of the Joint Chiefs of Staff Before the Committee on Armed Services, U.S. House of Representatives," February 7, 1991, p. 9.

5 The Heritage Foundation was briefed by Administration officials on G-PALS on February 11 and February 21, 1991. For further information on G-PALS see: Department of Defense, "Briefing on the Refocused Strategic Defense Initiative," February 12, 1991.

6 For a detailed description of the *Brilliant Pebbles* system see: Baker Spring, "Brilliant Pebbles: The Revolutionary Idea for Strategic Defense," Heritage Foundation *Background* No. 748, January 25, 1990.

7 Charles Bennett, "SDI Is No Patriot," *The Washington Post*, February 5, 1991, p. A-19.

based anti-missile weapons in a foreign country may be politically sensitive or impossible. Space-based weapons by contrast, provide protection while being "politically invisible."

Another reason that space-based weapons remain essential to any SDI system is that space-based interceptors are far more effective than ground-based interceptors against missiles with multiple warheads, like most Soviet intercontinental missiles. Only a space-based weapon can destroy an enemy missile during its ascent before it releases its multiple warheads and decoys. Ground-based interceptors, therefore, must discriminate between warheads and decoys and then attack each of the warheads individually in space or as they re-enter the earth's atmosphere closing in on their targets. *Brilliant Pebbles* need not do this because it destroys the one missile carrying the warheads and decoys.

200 Brilliant Eyes sensors.

Brilliant Eyes, derived from *Brilliant Pebbles* technology, detect and track ballistic missiles in flight. *Brilliant Eyes* have light- and heat-sensitive sensors to pick up the bright plumes emitted by missiles in their boost phase. *Brilliant Eyes* help direct space-based and ground-based interceptors against incoming ballistic missiles. *Brilliant Eyes* are smaller and lighter than existing satellites that detect and track missile launches and are better able to withstand enemy attack, in part because they will be deployed in large numbers. Only space-based sensors can provide the early warning capability and targeting information needed for missile defense. This was demonstrated during the Gulf War when America's early warning satellites alerted the *Patriot* of Iraqi *Scud* launches.

800 ground-based interceptors.

Warheads that slip through the *Brilliant Pebbles* net in space to threaten American territory will be intercepted by ground-based interceptors. Two ground-based systems are under consideration. The first is known simply as the Ground-Based Interceptor (GBI). The second is the Exoatmospheric/Endoatmospheric Interceptor (or E²I, pronounced "e-squared-eye," for short). Either one may be deployed, or both could be deployed in tandem.

GBI is based on technology developed through the Exoatmospheric Reentry vehicle Interceptor Subsystem (ERIS) test program. A test version of ERIS intercepted and destroyed a U.S. *Minuteman I* dummy warhead in space this January 28. The targeted *Minuteman I* was launched from Vandenberg Air Force Base in California, while the test version of ERIS was launched from Kwajalein Atoll in the Pacific Ocean. GBI, like ERIS, would attack enemy missile warheads in space before they re-enter the earth's atmosphere.

The technical challenge facing the GBI system is to discriminate between real warheads and decoys. Dummy warheads, similar to balloons, travel through space mimicking real warheads. The vulnerability of the decoy war-

head is its weight. Because it is so light, it is stripped away by the atmosphere as it begins the "terminal" or reentry phase of flight. Only real warheads survive the terminal phase. Because GBI will intercept enemy missile warheads in space, it must be able to discriminate between warheads and decoys. This is a difficult technical challenge, but progress on it is being made. The January 28 ERIS test successfully discriminated a dummy *Minuteman I* warhead from two decoys. If, however, GBI proves incapable of discriminating between warheads and decoys with a high degree of confidence, it is likely that E²I, rather than GBI, will be deployed as the ground-based leg of the G-PALS system.

E²I is based on technology developed through the High Endoatmospheric Defense Interceptor (HEDI) program. Since E²I is designed mainly to intercept and destroy enemy warheads after they reenter the atmosphere, it generally will attack only after the earth's atmosphere has stripped away the decoys. The main technical challenge facing E²I is ensuring that its on-board sensor will find the target warhead and direct the interceptor against it. This is tougher to do inside the atmosphere than above it, since the speed of the incoming missile creates friction with the atmosphere that then creates extremely high heat. This heat distorts the view seen by E²I's sensor as it "looks" through its sapphire crystal window. Preliminary tests indicate, however, that the window can be kept cool by covering it with a shroud for the early part of the interceptor's flight and using a liquid nitrogen coolant to coat the window after the shroud has been jettisoned. This was demonstrated during the first flight test of a HEDI missile at White Sands, New Mexico, on January 26, 1990.

Ground-based sensors.

G-PALS will depend on ground-based as well as space-based sensors to track ballistic missiles in flight. The ground-based sensors will relay essential targeting information to the interceptor missiles so that they can locate and destroy enemy warheads. Two ground-based sensor systems are likely to be included in the G-PALS system.

The first is the Ground-Based Radar (GBR), which will track missile warheads in the latter stage of their flight in space and inside the atmosphere as they close on their targets. GBR will be particularly useful in tracking missiles that have shorter times of flight, such as submarine-launched ballistic missiles (SLBMs) since it has the ability to process radar information quickly and provide it to commanders. GBR is designed to be mobile and probably will be based on railcars to make it less vulnerable to enemy strikes.

G-PALS second ground-based sensor system is apt to be the Ground-based Surveillance and Tracking Systems (GSTS). This is a heat-sensitive sensor mounted on a rocket. Upon early warning of a missile strike, the sensor will be launched into space to scan for incoming warheads beyond the range of the ground-based radar. The system will play an important role in distinguishing between real warheads and decoys.

Ground-based and sea-based tactical missile defenses.

G-PALS is designed to link systems for protecting the U.S. from attack by intercontinental-range missiles with interceptors deployed abroad to protect allies or U.S. troops in the field from attacks by shorter-range ballistic missiles like Iraq's *Scuds*. Prior to G-PALS, theater missile defense and strategic missile defense (or protecting U.S. territory) were not integrated into a common design. By combining these two missions in G-PALS, America will be able to deploy a defensive system capable of defending against ballistic missiles of all ranges. Systems that previously have been thought of as tactical or theater systems and are now being brought under the SDI umbrella through G-PALS include:

Arrow. Now under development by America and Israel, *Arrow* will be able to protect hundreds of square miles against tactical missiles, and ensure protection against missiles armed with chemical warheads by destroying them at higher altitudes and more completely than does *Patriot*. *Arrow* was tested in Israel on August 9, 1990, and March 25, 1991. Each test was considered largely successful despite the loss of some electronic data. The final two tests slated for later this year will demonstrate the ability of *Arrow* to destroy a mock missile warhead in flight.

ERINT. The U.S. Army, under SDIO supervision, has been developing its own tactical ballistic missile system called the Extended Range Interceptor (ERINT). It includes an on-board radar to guide it toward enemy missiles in the terminal phase of flight and a specially designed "fragmentation" warhead designed to throw a cloud of shrapnel in front of an incoming missile. ERINT will fit in existing *Patriot* missile canisters. A forerunner to the ERINT system, called the Flexible Lightweight Agile Guided Experiment (FLAGE), was tested successfully against a U.S. *Lance* short-range missile at the White Sands test range in New Mexico in 1987.

Patriot. Developed originally by the Army Missile Command, *Patriot* now has been turned over to SDIO, which will supervise efforts to upgrade its range and accuracy.

THAAD. This Theater High Altitude Area Defense system is being designed by SDIO and the Army to defend wider areas than *Patriot*. Of all the ground-based tactical missile defense systems under development, only THAADs will be able to intercept missiles outside the atmosphere. According to SDIO Director Henry Cooper, the THAAD system also may be deployed on U.S. warships to offer defenses against theater ballistic missiles around the world. The Navy is participating in studies supervised by SDIO on theater missile defenses.

It is likely that several of these tactical missile defense programs — *Arrow*, ERINT, *Patriot*, and THAAD — will be consolidated because their missions and capabilities overlap.

G-PALS ANSWERS SDI CRITICS

Because it is a more limited system than that proposed for a full Phase I defense, G-PALS addresses squarely some of the main charges leveled against SDI by its critics. The charges have been: 1) that anti-missile defenses are too expensive; 2) that SDI will undermine strategic stability; 3) that missile defense technology is not feasible; and 4) that the deployment of SDI will block improved relations with the Soviet Union.

The answers:

1) **Cost.** G-PALS reduces SDI deployment costs by \$12 billion, from \$53 billion to \$41 billion over ten years.⁸ It also ensures that no more than \$6 billion will be spent on SDI in any one year and less in most years. Funding requirements will decline after 1998.

2) **Strategic stability.** SDI critics worry that anti-missile defenses, particularly those capable of intercepting and destroying long-range missiles, will undermine what is known as "strategic stability." They argue that defenses, by reducing the vulnerability of the U.S. and the Soviet Union to ballistic missile attack, may tempt one side or the other to launch a first strike in the hope of gaining an advantage. G-PALS, however, is not designed to defend against a purposeful Soviet missile strike. G-PALS' 1,800 interceptors would be overwhelmed by the thousands of Soviet warheads that could be directed against the U.S. in a purposeful first strike. Even with G-PALS, the U.S. and the Soviet Union will be vulnerable to a purposeful first strike. Offensive deterrence, or the threat of retaliation, will remain the major means of preventing all-out nuclear war. While the long-term SDI objective still is to replace the precarious stability of the nuclear balance of terror with the secure stability of effective defenses, G-PALS gives no cause to upset the critics on this account.

3) **Feasibility.** Critics of SDI in Congress long have contended that it is not feasible to deploy defenses against ballistic missiles. Some argued that intercepting even a few missiles was impossible outside the test range. Proven wrong by the success of *Patriot* in the Persian Gulf War, the critics have switched their argument and claim that it is not possible to counter a large number of missiles, particularly if they include multiple warheads and decoys to confuse the defense.⁹ While the jury still is out on this question until further testing is completed, the issue is moot as far as G-PALS is concerned. G-PALS is designed to provide protection against missile strikes of limited size, only up to 200 warheads.

8 1988 dollars are used to compare SDI deployment costs because the first deployment plan was proposed in fiscal 1988.

9 Harold Brown, "Yes on Patriot, No on SDI," *The Washington Post*, March 27, 1991, p. A-23.

4) **Relations with the Soviet Union.** Some critics fear SDI will undermine attempts to improve relations with the Soviet Union. But the threat of Third World missile strikes and of accidental or unauthorized missile launches are threats shared by the U.S. and the Soviet Union. At a September 27, 1990, meeting in his Kremlin office, Soviet Presidential advisor Yevgeny Primakov told Heritage Foundation officials that there is a basis for U.S.-Soviet cooperation in countering the Third World missile threat. Other Soviet officials echo Primakov.¹⁰ Given changing attitudes in the Soviet Union, SDI can become a source of growing U.S.-Soviet cooperation, not confrontation.

CONFLICTING SIGNALS FROM CONGRESS ON SDI

From the inception of the SDI program in 1983, Congress has sought to derail Pentagon plans for anti-missile defenses. The result has been sharp annual reductions in SDI funding, restrictions on the testing of SDI components, and last year the division of SDI funding into separate accounts, with the most promising technologies receiving the lowest funding. Now, however, the success of *Patriot* interceptors in the Persian Gulf War is making House and Senate SDI opponents nervous. As a result, they have been sending confusing and contradictory proposals. The common thread in these is to divide further the SDI program so that these opponents of strategic defense can support some aspects, such as tactical missile defenses, including *Patriot*, while continuing to oppose the key programs and technologies needed to defend American territory against missile attacks.¹¹

One anti-SDI effort being pushed by House leaders is a bill introduced on March 14 by Timothy Penny, a Minnesota Democrat.¹² His proposal, H.R. 1446, would strip tactical missile defense programs — presumably including *Arrow* and *Patriot*, although his bill does not specify — from SDIO and establish a separate Theater Missile Defense office within the Pentagon. Were the Penny bill to become law, tactical as well as strategic defense programs would be undermined. Many of the technologies under development for SDI are “dual-use,” that is, they are effective for tactical or strategic defense. *Brilliant Pebbles* space-based interceptors, for example, could be used to counter tactical or intercontinental-range strategic missiles. THAAD interceptors likely

10 For further discussions of the possibility of U.S.-Soviet cooperation in the area of ballistic missile defense, see: Baker Spring, “In Moscow, Hints of Support for Strategic Defense,” The Heritage Foundation, *Executive Memorandum* No. 296, February 13, 1991 and Baker Spring, “The Defense and Space Talks: The Prospects for a Breakthrough,” The Heritage Foundation, *The Heritage Lectures* No. 275, 1990.

11 Recent articles seeking to separate *Patriot*’s success from the issue of strategic defense include: Charles Bennett, “SDI Is No *Patriot*,” *The Washington Post*, February 5, 1991, p. A-19; Harold Brown, “Yes on *Patriot*, No on SDI,” *The Washington Post*, March 27, 1991, p. A-23; and Leslie H. Gelb, “Right-Wing Myths,” *The New York Times*, January 27, 1991, p. E-17.

12 *Congressional Record*, March 14, 1991, pp. H 1774, E 965.

will be able to counter some types of strategic missiles, as well as short-range missiles. Ground-based and space-based sensors can be used for both missions.

Flawed Plans. Some members of Congress, including Senator Howell Heflin, the Alabama Democrat, call for proceeding with the development and deployment of anti-missile systems that comply with the 1972 ABM Treaty. While Heflin's February 6 Senate floor statement is a good faith effort to try to build a political consensus for SDI, his plan for deploying missile defenses within the confines of the ABM Treaty is flawed.¹³ He implies that the U.S. can achieve a credible continental defense within ABM Treaty limits.

This is not so. The ABM Treaty allows the U.S. to deploy only 100 interceptors, all of which must be in fixed positions at Grand Forks, North Dakota. A mere 100 interceptors are not enough to defend America credibly against even the lightest missile attack. Example: only ten Soviet SS-18 missiles, each of which is armed with ten warheads, would saturate the entire system. Ground-based interceptor missiles based in North Dakota, moreover, would not be able to shoot down submarine launched missiles aimed at America's coasts. Further, some areas of America would be left entirely undefended against any sort of missile launch, including Alaska, Hawaii, and likely even Heflin's home state of Alabama.

Despite conflicting signals coming from Congress, the Persian Gulf success of anti-missile weapons gives Bush a tremendous opportunity to mobilize support for development and deployment of anti-missile defenses. Americans have seen gripping telecasts, live from Israel and Saudi Arabia, of the lives and property ballistic missile defenses can protect. Many Americans are asking their senators and congressmen why America can protect its allies but not America against ballistic missiles. If Bush poses the question as starkly, SDI opponents will not find an answer.

RECOMMENDATIONS

G-PALS is the right program at the right time. By coordinating the defense of American allies and American troops in the field with the defense of American territory, and by including ground-based and space-based systems, G-PALS contains all the elements for a streamlined, efficient, and effective SDI program. Still, G-PALS needs strong political backing from Bush. If he is to succeed, he needs a strategy to put SDI critics on the defensive by pressing them at every opportunity to express a clear "yea" or "nay" on missile defense.

¹³ *Congressional Record*, February 6, 1991, pp. S 1654-5.

As part of this strategy, Bush should:

♦ ♦ **Ask Congress for a straight up-or-down vote on deploying strategic defenses in the 1990s.** On August 3, 1988, in Chicago, Bush pledged to decide on the final, precise architecture of an SDI system during his first term. But in 1989, Congress cut funding for the SDI program by \$1.1 billion from the Administration's \$4.9 billion request. Last year an additional \$1.7 billion was cut, and severe restrictions were imposed on how remaining funds could be spent. These actions by Congress make it impossible for Bush to fulfill his pledge because it will be impossible to complete the necessary tests in time. While Congress is responsible for this failure, Bush also bears blame for the outcome. In 1990, when Congress challenged his pledge, Bush scarcely took notice. He could have vetoed the Defense Authorization Bill and taken his case to the American people; he chose instead to sign the bill.

G-PALS gives Bush a second chance to put SDI back on track. G-PALS' limited military goals should permit an earlier deployment decision than the more ambitious Phase I proposal. In fact, since the *Patriot* interceptor already is in the field, one component of G-PALS already is deployed. Bush easily could establish a timetable for the deployment of additional components during the decade. He then should ask Congress for the authority to field these systems as they are ready. This will press Congress to come out openly either in favor or against deployment of anti-missile defenses. This too will give Bush the mandate he needs to keep SDI moving steadily toward deployment, rather than getting bogged down, as SDI opponents have tried to ensure, in endless years of research and development.

♦ ♦ **Fight attempts to split the SDI program.** Congressional opponents of anti-missile defenses are considering ways of dividing the SDI program to kill it piecemeal. They apparently see this as a means of their avoiding an open, clear-cut vote on SDI. Representative Penny's H.R. 1446 is the most recent example of efforts by SDI opponents to slice up the program and demolish it bit by bit. The Penny bill attempts to strip SDI of programs designed to defend against tactical or theater missiles. It therefore cuts the heart out of G-PALS. Penny's bill would result in further delays in deploying missile defenses for America's allies, and virtually end any opportunity for the U.S. to defend American territory against missile attack anytime soon. Bush should veto any bill that seeks to split SDI.

♦ ♦ **Set a two-year deadline to complete negotiations with the Soviet Union to modify the ABM Treaty.** G-PALS is designed to provide protection against missile strikes from Third World countries, or accidental or unauthorized strikes from any country. It cannot protect America against a major, purposeful Soviet missile strike. The lesser threats against which G-PALS defends are threats shared by the U.S. and the Soviet Union. Soviet territory is particularly vulnerable to Third World missile strikes because many of the countries acquiring ballistic missiles are near the Soviet border, including China, Iran, Iraq, Israel and Syria. Thus, the Soviet Union has incentives to deploy a system similar to G-PALS. This system is barred, however, by the

1972 ABM Treaty, which limits the U.S. and the Soviet Union to 100 ground-based interceptors. Under these limitations, neither side can legally field a credible defense of its territory. The U.S. and the Soviet Union have been negotiating since 1985 over SDI and the ABM Treaty at the Defense and Space Talks (DST) in Geneva. Bush should seek from Moscow a commitment to allow the deployment of anti-missile defenses on both sides. He should also tell Soviet negotiators that if an agreement cannot be reached within two years, the U.S. will invoke Article XV of the ABM Treaty. This permits withdrawal on six months' notice. America then, Bush should tell Moscow, will deploy G-PALS. This will provide Bush with an extra measure of negotiating leverage as well as strengthening the prospects for deploying G-PALS.

♦ ♦ **Reorganize the Strategic Defense Initiative Organization (SDIO) to ensure quick deployment of G-PALS.** All of the programs associated with the G-PALS proposal should be supervised by a unified office within SDIO. One of the shortcomings of the SDI program has been an overemphasis on research and an underemphasis on deployment. This stems from the 1983 commission, headed by former NASA Administrator James Fletcher, which recommended that SDI be established as a research and development program to provide a future president with the means for making an informed judgment about the feasibility of deploying anti-missile defenses. The future is now here. Getting SDIO onto a deployment track will require, first, that Bush set a firm timetable for deploying at least some G-PALS components. Second, Bush should consolidate G-PALS management into a single office that is separate from long-term research programs, and put G-PALS programs on a fast track for deployment.

Managers in the consolidated G-PALS office within SDIO should be instructed to direct the program with an eye toward rapidly acquiring deployable systems that meet basic performance requirements. Managers should focus on getting their systems fielded in contrast to what typically happens, which is to try to push each new technology to its limits. Example: SDIO has set criteria for a Ground Based Interceptor (GBI) of under 20 pounds. The first 1984 test version weighed over 2,500 pounds. The latest version weighs about 500 pounds. How much delay and how many dollars will be needed to bring the weight down further? Perhaps the existing 500-pound interceptor is adequate for GBI's limited defense mission. G-PALS managers should address these kinds of questions. They will do so if they are rewarded with promotions for moving their programs toward deployment, rather than setting ever-receding performance goals.

CONCLUSION

George Bush has taken an important step toward defending American and allied territory against ballistic missiles by proposing a new SDI system known as Global Protection Against Limited Strikes, or G-PALS. The dramatic success of the *Patriot* missile in the Persian Gulf War demonstrates unequivocally that America can down ballistic missiles in flight. Building on the success of *Patriot*, and the growing political momentum in favor of missile defenses, G-PALS can be the foundation for a political consensus to deploy SDI. G-PALS answers the SDI critics. It reduces costs, enhances strategic stability, it is technologically feasible, and may be acceptable to Moscow.

Still, if G-PALS is to succeed, it will require strong backing and a coherent political strategy, by the White House. Bush must present the SDI issue in stark terms. He must ask senators and representatives: "Are you for it or against it? Yea or nay?"

Ensuring Rapid Progress. Therefore a strategy to get America moving toward deploying missile defenses requires that Bush: request Congress to vote, straight up or down, on the authority to deploy missile defenses; veto any bill that would split up the SDI program; set a two-year deadline for reaching an agreement with the Soviet Union to modify the ABM Treaty; and consolidate the management of G-PALS programs within SDIO to ensure rapid progress toward deployment. Without such a strategy, G-PALS will be picked apart by SDI opponents before it gets off the drawing boards. With strong backing from the White House, however, 1991 could be the year America at last can begin to defend herself against the threat of ballistic missile attacks.

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