

Reagan's Star Wars:

Peace Through Hope

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In a televised address to the nation delivered on March 23, 1983, President Ronald Reagan announced his vision of a world safe from nuclear weapons via a sophisticated defensive network across land, sea, air, and space. Named the Strategic Defense Initiative (SDI), it called upon the American scientific community—"those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us the means of rendering these nuclear weapons impotent and obsolete."¹ The immediate reaction was one of disbelief and derision with the media quickly dubbing the SDI the "Star Wars" program because of its fantastical nature.² Soon, even peace activists who rallied against nuclear weapons would begin to protest the SDI as an escalation of the nuclear arms race into space, despite Reagan's commitment to exploring its defensive capabilities and guaranteeing world peace. But was his vision truly revolutionary? Ever since the invention of the atomic bomb, there has been no viable countermeasure against nuclear bombs, much less nuclear tipped ballistic missiles. For most of the Cold War both the United States and the Soviet Union opted for an escalating arms race as a form of deterrence while maintaining a balance of terror known as Mutually Assured Destruction (MAD).³ The doctrine dictates that either side would not use nuclear weapons due to the inevitable annihilation to both parties. However, by the 1980s, improvements in technology and an energized Reagan administration sought to develop new defense mechanisms against such weapons. Reagan's speech turned thirty years of national security policy on its head. There was fierce criticism to the planned SDI due to its costs both financially and politically. Some argued that it actually increased the chances of nuclear warfare because of the unbalancing nature of the U.S. having both a defense against nuclear attack and having a stockpile of offensive nuclear weapons. Despite this criticism, it was such a crucial program in Reagan's foreign policy. Indeed, when analyzed through this framework, the SDI debate was

integral to successful nuclear arms control negotiations with the Soviet Union even after President Reagan's tenure.

The concept of nuclear defenses arose concurrently with the development of the nuclear arms race over the course of the Cold War. Termed Anti-ballistic missiles (ABM) and Ballistic Missile Defenses (BMD), these devices served the only practical way of countering nuclear weapons by launching interceptor missiles of their own. However, numerous studies and research have shown that the technological capacity for such a defense to work requires a near perfect level of efficiency that makes the whole endeavor pointless and impossible. As the saying goes "the best defense is a good offense," it became a grim reality for the world when stockpiling offensive nuclear weapons in itself was the defensive strategy adopted by the two superpowers leading to the wide acceptance of the MAD doctrine. On the Eastern side, the large Soviet Union heavily invested in land based Intercontinental Ballistic Missiles (ICBMs) with Multiple Independently Reentry Vehicles (MIRVs) capable of carrying multiple nuclear warheads to maximize its already terrifying capabilities. In the West, the U.S. adopted a more balanced triad of nuclear forces centered on strategic bombers, nuclear submarines and fixed silos spread across its landmass, the Atlantic and the Pacific. In the event of a nuclear attack, both sides can only track the missiles trajectories, but they would not be able to alter their fates except to launch nukes of their own. Such was the MAD doctrine and the balance of terror.

Yet, the idea of a purely defensive system against nuclear attack never died. Its persistence can be seen in a historical precedent mentioned near the end of Reagan's speech when he specifically said that the research and development of the SDI will be "consistent with our obligations of the ABM treaty."⁴ Signed during the 1972 Moscow Summit between then President Richard Nixon and the General Secretary of the Communist Party of the Soviet Union, Leonid Brezhnev, the ABM treaty was part of the larger Strategic Arms Limitation Talks (SALT) at the time. It was focused on implementing comprehensive limitations of deploying ABM systems between the United States and the Soviet Union. Each party was to

have only two BMD complexes, both of which was to be limited to a hundred anti-ballistic missile interceptors⁵. While nowhere near enough to protect either nation's full territory during a nuclear exchange, the ABM systems covered high population areas. The Soviet Union, centered its defenses around the capital of Moscow. They came into operation by 1971. On the other hand, the U.S. BMD, called Safeguard, was mired in setbacks and congressional disapproval. Initially, it was meant to be similar to the Soviet system of protecting cities. However, the tremendous offensive effectiveness of ICBMs greatly outweighed any potential defenses. Hence, Safeguard was deployed to protect several U.S. ICBM silos instead in order to enhance nuclear deterrence and the MAD doctrine. Only the Stanley R. Mickelsen Safeguard Complex near Grand Forks, North Dakota, was completed in late September of 1975. Less than a year later, in February 1976, the base was shut down and dismantled due to budget cuts.⁵

Given that the Soviets were operating an ABM system while the U.S. was not at the time of Reagan's speech, why then was there so much criticism of the SDI before it was even started? In retrospect, much of the debate was centered on the technical and fiscal aspects of the SDI. But amongst the public, opposition arose from a legitimate fear from a cultural standpoint. For the past few years, the world was engrossed with the widely popular cinematic space opera *Star Wars*. The franchise introduced Americans to fantastical weaponry and naval ship combat in space. Yet, one of the most iconic images of the series was the ever-terrifying Death Star, the moon-sized battle station capable of destroying entire planets using an energy beam. This soulless omnipresent god of war instills dread across the galaxy and personifies the tyranny of the evil Galactic Empire.⁶ It wasn't hard for the public to accept "Star Wars" as the media nickname for the SDI due to its capacity to escalate nuclear warfare into the innocent virginity of space.

For his part, Reagan did not mention "giant lasers in space" or any weapons at all when he was presenting the SDI to the public. However, energy-based solutions were at the focal point of BMD research among both U.S. and Soviet scientists at the time. Indeed, one of the most ambitious parts of the SDI was the idea of arming satellites with such weapons to destroy ICBMs at the crucially vulnerable moment

when they are leaving their silos or launch platforms during the 5-minute boost phase. Compared to the surface-to-air missiles (SAMs) of a traditional ABM system, this is far more effective as the offending nation will be punished on its home soil rather than for the defender to risk total annihilation by fruitlessly trying to stop thousands of warheads travelling around 15,000 miles an hour at sub-orbital heights⁷. Soon enough in 1984, the Strategic Defense Initiative Organization (SDIO) was set up within the U.S. Department of Defense with the ultimate objective of exploring the possibilities of a layered defense against nuclear weapons, especially the unstoppable ICBMs. The organization itself faced criticism and was a controversial subject during budgetary debates because of the perceived costs to the government with some estimates ranging from \$200 billion to as high as \$1 trillion in total.⁸

Unfortunately, the research will show that laser-based solutions will need to overcome a staggering number of hurdles to even meet the most basic degree of defense for such a system to be effective. Chief among these is beaming energy across the dense layer of Earth's atmosphere, which is far harder than it sounds. Most types of lasers are incapable of penetrating the atmosphere while maintaining accuracy and stopping power enough to destroy an ICBM in flight or even on the ground. An early critic of the SDI, Dr. Robert Bowman, explored the probabilities of such systems. Only when, the ICBMs travel for a momentary period out of the atmosphere during its sub-orbital flight then the lasers can destroy the target.⁹ Besides this challenge, the amount of power needed for the laser to work would require the satellite to be nuclear powered. That in itself presents host of problems as the defender will be placing a nuclear weapon in space ostensibly in the name of peace. This is not to mention the ludicrous amount of coordination and number of satellites required to destroy the thousands of decoys and warheads launched during a full-scale nuclear war.¹⁰

Worse still, the potential attacker could just reduce the missiles' boost phase so that they will not travel past the atmosphere, thus utterly avoiding the entire system of defensive satellites. Finally, even the talk of creating a defensive system could push the aggressor to develop countermeasures against

them. In addition to hardening missiles or improving maneuverability, they can just as easily create more offensive weapons to overwhelm the stillborn defense. It only takes roughly 30 minutes for an ICBM to travel between Russia and the U.S.¹¹ Let's not forget about the other nuclear warheads that are mounted on Submarine-launched ballistic missiles (SLBMs), cruise missiles, bombs and even quite possibly a suitcase. As Bowman put it, "Nuclear weapons can also be delivered... indeed by any of the many ways people smuggle cocaine and marijuana into the country."¹²

Neither was the SDI considered an ethical solution by many of its opponents given its destabilizing effects on the current balance. Some argue that SDI would actually increase America's first strike capabilities, making nuclear warfare a "winnable" scenario for the nation and a nightmare for the world. Physicists Michio Kaku and Daniel Axelrod explained in their book *To Win a Nuclear War* that a nation with effective Star Wars and civil defense systems could strike at other nations with impunity.¹³ They reminded readers of former Premier Andropov's warnings on March 26, 1983, just three days after Reagan's Star Wars speech: "A U.S. ABM system would be tantamount to a bid to disarm the Soviet Union in the face of the U.S. nuclear threat."¹⁴ Others thought that it was actually the U.S. that held the strategic advantage and the Soviet Union had finally achieved parity on nuclear arms. They believed that the Reagan administration felt insecure about this balance and sought means to obtain superiority over the Soviets in order to dictate the interests of the globe on American terms. In the early years, anti-war movements spread out globally, protesting against the SDI for violating the ABM treaty and escalating the nuclear arms race into a far more dangerous level. A conference of Catholic bishops sent an open letter to President Reagan urging him to reconsider his position and seek a better path towards peace.

This begs the question: why, then, was the SDI such a fundamental program under the Reagan administration despite its unfeasibility and political fallout? Several proponents of the SDI framed the program as a bargaining chip to get the Soviet Union onto the negotiation table. But to Reagan, it seemed to be a cornerstone of his arms control legacy. As an ardent skeptic of the MAD doctrine, Reagan had

always been critical of the whole concept of the nuclear arms race. In his 1990 autobiography *An American Life* he likens MAD to “two westerners standing in a saloon aiming their guns at each other’s head – permanently.”¹⁵ Rather than limiting the rate of increases in nuclear arms proliferation he sought to stop the race completely and reduce stockpiles of nuclear weapons. The SDI program was the catalyst for change against the unstable nuclear precipice the world found itself in. Reagan wanted to pull back from the brink of MAD rather than push us over the proverbial edge. This can be seen in his administration’s negotiations with the Soviet Union and its enigmatic leader Mikhail Gorbachev.

President Reagan’s experience was the Russians had taught him that “many people at the top of the Soviet hierarchy were genuinely afraid of America and Americans.”¹⁶ Still, he always placed a lot of faith in the power of human contact to solve problems. As he wrote in his autobiography, “Well, if that was the case, I was even more anxious to get a top Soviet leader in a room alone and try to convince him we had no designs on the Soviet Union.”¹⁷ Regrettably, Moscow’s response to his attempts at quiet diplomacy was a cold shoulder but when Gorbachev became general secretary, both leaders started to correspond with each other. Musing on those early years, Reagan said that those “first letters marked the cautious beginning on both sides of what was to become the foundation of not only a better relationship between our countries but a friendship between two men.”¹⁸

In 1985, both leaders met for the first time at the Geneva Summit to hold talks on international diplomatic relations and the nuclear arms. Reagan’s goal was to develop a personal relationship with Gorbachev, convincing him that the U.S. desired peace above all else. Meanwhile, Gorbachev approached the meeting with realistic expectations, rejecting the vast majority of the items U.S. negotiators presented. Even then, Reagan and Gorbachev talked well past the scheduled time in their first meeting. After lunch, they further conversed outside for about two hours on the SDI program. The two of them stood firm in their respective convictions but agreed to meet again a year later to further the discussion.¹⁹

At home, the SDI was facing more scrutiny and criticism seeing as the talks were stalling. In February 26, 1986 Reagan addressed the nation to defend the administration's costly defense budget. Reagan echoed his "Peace through strength"²⁰ diplomacy first used during his election campaign by reassuring Americans of the nation as being a "sheltering arm for freedom in a dangerous world." Furthermore, he reminded the public of the heightened tensions just a five years ago, "The anxiety that events were out of control, that the West was in decline, that our enemies were on the march. It was not just the Iranian hostage crisis or the Soviet invasion of Afghanistan but the fear felt by many of our friends that America could not, or would not, keep her commitments."²¹ On the topic of the SDI directly, Reagan remained committed to the vision of a world safe from nuclear weapons. He characterized the SDI as being "a security shield that may one day protect us and our allies from nuclear attack, whether launched by deliberate calculation, freak accident, or the isolated impulse of a madman." Reagan would further counter the SDI detractors by stating his seriousness with defense was the cause that created the atmosphere in which serious talks could finally begin. In closing, he remained similarly convicted to the first SDI speech by declaring the administration's ultimate objective with its foreign policy agenda. "We don't just want signing ceremonies and color photographs of leaders toasting each other with champagne. We want more. We want real agreements, agreements that really work, with no cheating. We want an end to state policies of intimidation, threats, and the constant quest for domination. We want real peace."

It was Premier Gorbachev who proposed they meet in Reykjavik, Iceland. Held in Holfdi between the 11th and 12th of October 1986. The summit was also a symbolic gesture due to the choice of the location as Iceland is seen as neutral territory.²² The Soviets had proposed banning all ballistic missiles earlier in the year, but Reagan wanted to continue research on the SDI. Yet, Gorbachev acceded to Reagan's 1981 "double-zero" proposal for eliminating Intermediate-Range Nuclear Forces (INF) weapons from Europe.²³ It appears then that Gorbachev was convinced that Reagan was sincere in his desire for a global peace. He further reinforced his commitment to reduce half of all strategic arms including ICBMs,

with the caveat that British and French weapons won't be part of the count.²⁴ In exchange, he expressed hopes that the Americans pledge not to implement strategic defenses for the next ten years, in accordance with SALT I. Gorbachev was unbudgingly stubborn in his stance on SDI research due to the potential violation of the ABM treaty as a matter of principal.²⁵ Reagan countered by saying the SDI research was conducted under reasonable interpretation of the ABM treaty, that tests outside of a laboratory setting were permitted. "I've said again and again the SDI wasn't a bargaining chip. I've told you, if we find out that the SDI is practical and feasible, we'll make that information known to you and everyone else so that nuclear weapons can be made obsolete," Reagan replied somewhat angrily. "It had been the SDI that brought the Soviet Union to Geneva and Reykjavik. I wasn't going to renege on my promises to the American people not to surrender the SDI," he said in his autobiography. Gorbachev was doubtful as the Americans would not even share oil-drilling technology.²⁶ Arriving at an impasse, both sides could not go any further.

Although the meeting adjourned with no agreement, they discovered the extent of the concessions the other side was willing to make. Thus, the summit was important in facilitating the INF Treaty signed in Washington in 1987, utterly removing all land-based nuclear and conventional missiles of the short and intermediate-range varieties.²⁷ By the spring of 1988, after ratifying the treaty, Reagan and Gorbachev met again in Moscow for further talks on arms control, human rights and bilateral relations. During this visit, the final history exams for Soviet secondary school students had to be canceled until textbooks can be brought up to date.²⁸ History was literally changing in the Soviet Union along with much needed political and economic reforms with Gorbachev's own initiatives dubbed *Perestroika* and *Glasnost*, meaning openness and publicity, respectively. In his memoirs, Gorbachev wrote that Reagan's acknowledgment of his reform work was one of the genuine achievements of the Moscow visit. "He had been right to believe, back in Reykjavik, that you could 'do businesses' with the changing Soviet Union." "In my view, the 40th President of the United States will go down in history for his rare perception," praised

Gorbachev.²⁹ On December 7th 1988, he would deliver his now famous speech at the 43rd United Nations General Assembly by declaring drastic cuts in the Soviet military presence in Eastern Europe and along the Chinese border signifying the end of the Cold War.³⁰ Gorbachev and Reagan saw each other for one last official meeting with President-elect George H.W. Bush in attendance touring Governor's Island. This last face-to-face was characterized by their small talk and friendship. Gorbachev said each time they met the weather got better to which Reagan replied jovially that we arranged that.³¹

The SDI program was integral to many of these talks in accordance with Reagan's "peace through strength" diplomacy. While it genuinely seems like Reagan had the best interests of the world at heart with the development of the SDI, the threat of a new arms race, although defensive, actually increased the current offensive nuclear weapons buildup. According to the Bulletin of the Atomic Scientists, Soviet nuclear warheads outnumber the U.S. by more than ten thousand units, peaking in 1986. Yet, the total number of warheads between the two superpowers was reduced by 38% between 1983 and 1993.³² Critics point out that the SDI invariably increased Cold War tensions at this time. Yet this ignores the tremendous economic impact the rapid spending had on the Soviet Union. During this period, they were already hurt from the disastrous intervention in Afghanistan's civil war, losing many valuable aircraft in the process. These losses were due to the Mujahedeen using American supplied Stinger missiles, a stratagem adopted under the Reagan administration.³³ Coupled with an increase in military spending percentage of gross domestic product (GDP), there is ample evidence that the Soviet economy was suffering slowing growth and stagnation.³⁴ Gorbachev was busy reforming the entire Soviet establishment politically and economically. Clearly, the Soviet Union was in dire straits despite its aggressive posture on the world stage.

On the other hand, congressional budgetary debate surrounding the SDI was timid in comparison as the eventual federal budget was well within capacity to absorb the moderate increases in defense spending. The final price tag was around \$120 to \$200 billion dollars spread over 10 years with an annual

budget around \$3 billion for the SDIO.³⁵ The final cost to American taxpayers with the SDI research amounted to only \$30 billion by 1989.³⁶ While It is hard to quantify the direct economic benefits of the SDI program for the U.S. due to the intrinsic nature of new technologies. There were some notable breakthroughs for a variety of scientific fields and disciplines. Such examples include space travel, high-energy physics, supercomputing, and many other fields of science and engineering. To this day funds for the SDI are still trickling down to various laboratories and research centers across the nation.

What is certain is the political success of the SDI program on nuclear arms control. Recall the Reykjavik summit where the Soviets were prepared to fully cut 50% of their stockpile if development of the SDI stops.³⁷ Even though Reagan was adamant that SDI research continues in accordance to the ABM treaty, this does not deny the tremendous strategic value the Soviets placed on the program. "Control of space means control of the world," said Senator Lyndon B. Johnson in 1957 at the start of the Space Race.³⁸ Without a doubt, a space-based ABM system, if possible, will provide the owners an unequaled advantage over the Earth as the evolution of air superiority was crucial to military matters from World War I onwards. It is due to the discussion and debate over the SDI program that the world started to evaluate the uncertain future. MAD was never going to be sustainable given the clear and present danger of rogue elements detonating nuclear weapons potentially causing retaliatory strikes between the superpowers and the end of civilization. True enough, U.S. - Soviet relations did improve in the years after the SDI was announced in spite of several diplomatic setbacks during arms control negotiations. Gorbachev and Reagan came to mutual respect not only as individuals but for the wider East vs. West paradigm. Eventually, the Soviets were keen to limit and reduce their nuclear arsenal while allowing international verification to operate on their territory.³⁹ The U.S. reciprocated not only by shutting down several silos and launch pads but also dismantling portions of its strategic bomber fleet. On one air force base, dozens of B-52 bombers were scrapped and cut up. Their remains were left on the airfield for 90 days to allow satellites to verify the process.⁴⁰

After Reagan left the presidency, both the U.S. and the Soviet Union's nuclear arsenal saw a huge decrease in warheads with thousands more awaiting retirement as SALT I and II were implemented.⁴¹ Between 1988 and 2000, the U.S. reduced its overall nuclear warhead stockpile by 59% - 80% of the non-strategic variety and 47% of the ICBMs. Furthermore, the U.S. nuclear-armed strategic bombers are no longer on alert and while ground forces and surface ships no longer have a nuclear capability. No nuclear weapons test explosions have been conducted since September 1992, and the U.S. has terminated production of fissile material for nuclear weapons.⁴² President George Bush, Senior would further sign the Strategic Arms Reduction Treaty (START) first proposed under Reagan's administration with Gorbachev before the dissolution of the Soviet Union early in 1991 and the later START II treaty with President Boris Yeltsin in 1993. This further proves the SDI's importance to Reagan's lasting arms control legacy.

Ultimately, there was to be no deployment of any of the SDI satellites once idealized by its proponents. The program fizzled into obscurity at the research stages with only a handful of applicable laser prototypes developed during and after Reagan's presidency. The SDI organization itself still functions as a federal agency, operating the U.S. ABM systems of today. SDIO was renamed to the Ballistic Missile Defense Organization (BMDO) under President Bill Clinton and then the Missile Defense Agency (MDA) under President George W. Bush.⁴³ In contrast to the promised "Star Wars" technologies, the world now relies on traditional missile interceptors in specific regional theaters to directly counter ICBM launches during the boost phase. Most of the ABM systems are based near geopolitical hotspots such as the Middle-East and Far East Asia.

Even though the Soviet Union has been dissolved ending the tensions of the Cold War and a globalized economy has improved world relations, there are still dangers of rogue elements detonating nuclear weapons for mass destruction. This is before even factoring the rising number of nations who now have nuclear weapons and are further pursuing weapons programs in order to gain a leverage. More than thirty years have passed since Reagan first gave his "Star Wars" speech but little development in research

are conducted today towards BMD systems. In the event of an ICBM launch the world is still as vulnerable as it was since the early years of the Cold War. The only way forward is further reductions in these doomsday weapons and adopting stricter global control over the development of them. Perhaps one day a world of mutually assured survival is possible but as President John F. Kennedy said in his inaugural address in 1961, "All this will not be finished in the first hundred days. Nor will it be finished in the first thousand days, nor in the life of this administration, nor even perhaps in our own lifetime on this planet. But let us begin."⁴⁴

Notes

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4. Reagan, *National Security and SDI*.
5. Finney, *Safeguard ABM System to Shut Down*.
6. Starwars.com, *Death Star*.
7. Bowman, *Star Wars*, 23.
8. Simon, *Future of SDI*, 91.
9. Bowman, *Star Wars*, 28.
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12. Bowman, *Star Wars*, 34-35.
13. Kaku and Axelrod, *Ethics and Strategic Defense*, 136.
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32. Hans and Jakob, *Global Nuclear Weapons Inventories*. 78.
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38. Wasser, *LBJ's Space Race*.
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