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## STAR WARS: LEGALITY OF SDI IN THE EYES OF INTERNATIONAL LAW

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### ABSTRACT

*In the year 1983, unthinkable research into a defence system that could make nuclear missiles obsolete was undertaken by the then President of the United States of America, Ronald Reagan. This research, known as the Strategic Defence Initiative (SDI), was dubbed Star Wars by critics. It aimed at protecting the United States from a large-scale nuclear attack by ballistic missiles. This was based on very futuristic technology, like a space-based laser system, which hadn't been developed at the time. But what did exist at the time was the movie Star Wars. The idea that President Reagan envisioned was portrayed in science fiction, hence the name Star Wars.*

*Had the Strategic Defence Initiative been successful, it would have changed the world as we know it. The threat of nuclear attacks would have been completely eliminated. It came with its fair share of ups and downs and an equal share of criticism from around the globe. This paper explores in depth the Strategic Defence Initiative, the research that was conducted, its legality, how it could become unlawful, how it could remain lawful, and lastly, why it failed.*

**Keywords:** *ABM Treaty, Futuristic Technology, Legality, Star Wars and Strategic Defense Initiative.*

## 1. INTRODUCTION

Relations between the United States and the USSR were strained and driven by a complex interplay of ideological, political, and economic factors. Soviet Union Leader Joseph Stalin's decision to sign a non-aggression pact with Nazi Germany further impacted relations between the two superpowers.

In the years to come, the relationship became one of mistrust and hostility during the Cold War. Since its onset, both superpowers began to find ways to accumulate large arsenals of nuclear weapons, and military planners encouraged the development of a defence system against nuclear attacks.

The goal of the Strategic Defence Initiative may have been more political than scientific, despite the fact that the mutual assured destruction, or MAD, strategy had previously prevented a nuclear conflict between the two superpowers. A strong defence system like SDI would negate the Soviet Union's capacity to launch an initial attack, bringing to mind the Cold War confrontation between the US and the USSR. As a result, a superpower like the US would become unbeatable and the USSR would be unable to threaten the US in any way.

If one thinks about it, proposing a system like the SDI, which would eliminate the threat of nuclear attacks entirely when relations between the States and the USSR were strained, would help put a stop to the nagging by the critics concerned about the nation's expenditure on defence and justify the transfer of funds from other programs to the SDI. Moreover, it would look more like a peace initiative than anything. SDI research was very advanced for the time, and thus many think it was farfetched and deceiving in a way. Because how the deadliest weapons known to mankind could be destroyed in the air just like that was beyond thinkable.

The United States and the Soviet Union held discussions about reducing ABM-related activities in 1969 as part of the SALT I series of arms-limitation negotiations. This conversation culminated in the creation of the Anti-Ballistic Missile Treaty, or ABM Treaty, which is still in force today, two years later. Despite the historic nature of the Intermediate Range Nuclear Forces (INF) Treaty, the ABM Treaty continues to be the cornerstone of US-Soviet arms limitation.

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## 2. APPREHENSION OF FIRST STRIKE BY USSR

According to US policy, the Soviet Union posed the biggest threat to US security. It was thought that the Soviet Union increased the threat to the United States' ability to survive by strengthening its ballistic missile force in order to increase its military prowess and effectiveness. This was due to the fact that, since the start of the SALT I negotiations in 1961, the Soviet Union had produced five new models of intercontinental ballistic missiles (ICBMs). Comparatively speaking, since 1969, the US has only deployed one ICBM, and that too in small quantities. Since 1969, the US has only deployed two new types of SLBMs and one new class of ballistic missile submarine.

The United States was gravely concerned about the Soviet Union's non-compliance with arms control agreements, notably the ABM Treaty, according to the Strategic Defence Initiative Organization's 1989 Report to Congress on the Strategic Defence Initiative<sup>1</sup>.

The research indicates that even though there were treaties signed and the Mutual Assured Destruction policy (which deterred nuclear war between the superpowers) was in place, the United States apprehended the breach of agreement on the side of the Soviet Union, and thus research into the advanced technology involved in the SDI was of utmost importance<sup>2</sup>.

## 3. STRATEGIC DEFENSE INITIATIVE, 1983

US President Ronald Reagan announced groundbreaking research to be conducted to render nuclear weapons obsolete in a televised speech to the entire country. The Strategic Defence Initiative was the collective name given to this multifaceted research project.

Under the SDI programme, the US could identify and destroy a lot of incoming ballistic missiles automatically as they were launched, as they flew, and as they got closer to their targets. In other words, the missiles would be destroyed at different stages after launch until they arrived at their target.

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<sup>1</sup> Abraham D. Sofaer, *The abm Treaty and the Strategic Defense Initiative*, 99(8) HARVARD L. REV. (1986)

<sup>2</sup> *Id.*

SDI became famous for the nickname given to it by the critics: Star Wars. Star Wars is in a way misleading because it implies that it is a fully developed, deployed, offensive, space-based missile defence system, which, in fact, SDI was not. SDI was merely research and would remain so for years to come.

SDI means a set of program elements included in the SDI program. Star Wars refers both to the SDI Program as well as other programs closely related to the SDI yet officially excluded from it.

The technology used in SDI falls into the following categories:

- Sensors: To detect the initiation of an attack, to track the missiles and warheads through the path of the flight, and to direct the targeting of defensive interceptors.
- Destructive devices: To damage, deflect, or incapacitate missiles or warheads in various phases of flight.
- Computer systems: To process the data acquired by the sensors to make kill assessments and other technicalities related to the destruction of the missiles.
- Techniques for discriminating targets from decoys
- A variety of methods for defeating countermeasures

*Objective and Goal of the Strategic Defense Initiative Program:*

- SDI aimed to conduct a dynamic research and technology program that could help the US defence department make informed decisions regarding the possibility of eliminating the threat posed by ABMs of all ranges.
- The United States and its allies must be proficient in countering a substantial ballistic missile threat from the Warsaw Pact nations and other countries developing ballistic missile capabilities.
- President Reagan thought that the goal of US defence research should be to eliminate nuclear weapons, which he personally thought were morally wrong.

The Strategic Defensive Initiative, as described by Sanford Lakoff and Herbert F. York, basically put a shield in space to protect a place on Earth from devastating nuclear weapons<sup>3</sup>.

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<sup>3</sup> Jan M. Lodal, *An Arms Control Agenda*, 72 FOREIGN POLICY (1988)

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Martin Feinrider, in his *The Strategic Defence Initiative and International Law*, mentions that SDI has had the salutary effect of offering a way out of the “insane logical trap” of deterrence theory, i.e., MAD. According to MAD, the principle of deterrence is founded on the notion that a nuclear attack by one superpower would be met with an overwhelming nuclear counterattack by the other superpower, such that both the attacker and the defender would be annihilated<sup>4</sup>.

It is clear that the Soviets were concerned about the programme, and they voiced their concerns very immediately after learning about it. Future arms discussions between the two superpowers were hampered by the possibility that the US would construct the defence system. Mikhail Gorbachev, the leader of the Soviet Union at the time, issued directives to the US to abandon the SDI and concentrate on the talks for the Strategic Arms Reduction Talks (START) and the Intermediate-range Nuclear Forces Treaty (INF Treaty).

President Reagan's insistence on keeping the Strategic Defence Initiative in place hindered the two nations' efforts to agree on other arms control measures during the 1980s. The INF Treaty was only signed by the two superpowers after they agreed to separate the defence and intermediate-range forces discussions. After Reagan departed power, START was eventually finished, and the government's support for the SDI project began to decline.

#### **4. TECHNOLOGY USED & WHY DID SDI FAIL?**

As is already established, the SDI was based on an ultramodern technology that was not developed back in the day. Science and technology had not been developed as much as they have now. Naturally, the high expenditure of the project and relatively few results made the project even more unpopular.

Moreover, complex systems like MIRACL, SSTS, BSTS, CHECMATE, ERINT, and many others were part of the program. This showed how difficult the process of actually building this shield was. There was a lot of work that would come with this program like detecting the launch of the missile, tracking it mid-flight, communicating that information to the laser-based system in the space and finally destroying those missiles. There was also concern about

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<sup>4</sup> Martin Feinrider, *The Strategic Defence Initiative and International Law*, 10(1) THE FLETCHER FORUM (1986)

the USSR using decoys, thereby incapacitating the system before the actual attack and thereby overwhelming the system. The X-ray laser, a weapon proposed by Edward Teller, was designed to orbit the earth, where it could simultaneously shoot down Soviet ICBMs by using power generated by a nuclear blast. This laser was scrapped in the late 1980s and became a symbol of the impracticability of Star Wars.

The main reasons why SDI got shelved are its apparent impracticability and expensiveness and the question of its legality as far as international law and world peace are concerned.

## **5. LEGALITY OF THE SDI PROGRAMME**

The ABM Treaty was signed in 1972 by the USSR and the USA. The goal of the treaty is to control nuclear weapons. Each signatory to the treaty committed to refraining from using ABM systems to defend its territory or from providing a base from which to do so. Each side was only allowed to deploy the ABMs in one designated "deployment area" and only at specific test ranges, following the terms of the treaty. Furthermore, no ABM system or component that was air-, sea-, space-, or mobile land-based could be tested, produced, or used, according to Article V of the ABM treaty.

The ABM Treaty is where the legitimacy of Star Wars or the SDI comes into doubt. It was lawful for SDI to conduct research in order to evaluate the viability of space-based ballistic missile defence. However, it would most likely be unlawful to expand the study programme to include development and testing. According to the administration, the proposed missile defence system's deployment would be illegal, but that would not. The ABM treaty was, according to programme supporters, the biggest obstacle to the programme.

The 1967 Outer Space Treaty and the 1972 Anti-Ballistic Missile Treaty are the two main treaties that determine if SDI is lawful. Although the Outer Space Treaty is a multilateral agreement, the ABM Treaty is exclusive to the United States and the Soviet Union; for this reason, it has received the majority of attention.

### **5.1 Outer Space Treaty:**

Only peaceful uses of space are permitted by the Outer Space Treaty. It is now accepted that the term "peaceful" refers to non-aggressive behaviour rather than non-military behaviour, allowing for the military's usage of space.

The use of military troops for peaceful purposes, including scientific study, is not forbidden by Article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Space has already been used for military surveillance, reconnaissance, and communications via satellites. But the treaty does bar certain military uses of space, as mentioned in Article IV.

So to conclude, if one considers SDI from the perspective of the Outer Space Treaty, it is not illegal. It only becomes violative of the treaty if it is deployed.

## **5.2 Anti-Ballistic Missile Treaty**

The US and the USSR are parties to this treaty. It feels that the MAD is the best way to keep the two nuclear powers at peace. The implementation of a complete ABM system is forbidden by the ABM treaty. The ABM Treaty would be broken by developing, testing, or deploying the defensive space-based system that SDI mentioned<sup>5</sup>.

In Article I (2), each signatory undertakes not to deploy ABM systems for the defence of its territory except as provided under the treaty<sup>6</sup>.

Under Article II of the treaty,

For the purpose of this treaty, an ABM system is a system to counter strategic ballistic missiles or their elements in flight trajectory, currently consisting of:

(a) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role or of a type tested in an ABM mode;

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<sup>5</sup> Milton L. Smith, *Legal Implications of a Space Based Ballistic Missile Defense*, 15(1) CALIFORNIA WESTERN INT'L L. J. (1985)

<sup>6</sup> *Id.*

(b) ABM launchers, which are launchers constructed and deployed for launching ABM interceptor missiles; and

(c) ABM radars, which are radars constructed and deployed for an ABM role or of a type tested in an ABM mode.

The accepted understanding is that laboratory-based research on ABM technologies, including those that may be used in space, is unrestricted by the ABM treaty. This view seems to be predicated on the inability to test such behaviour without resorting to too intrusive methods. Nevertheless, by classifying these endeavours as "preliminary testing" or "technological demonstrations," the United States has expanded its study on space-based ABM technologies outside of the lab. Furthermore, the US has maintained that rather than testing components—which are forbidden by Article V—the testing has focused on adjuncts, or what are known as smaller aspects of the ABM system.

### **5.3 Conclusion as to legality:**

In actuality, the eagerly awaited SDI system was an illegal first strike weapon that might be used in violation of both the Outer Space Treaty and the UN Charter. It would also be illegal to design, test, or implement such a space-based SDI system in accordance with the terms of the 1972 ABM Treaty. Even the ABM Treaty-permitted research laboratory work on ABM systems would be considered an illegal attempt to breach the Outer Space Treaty and the United Nations Charter.

The ABM treaty allows research into space-based ballistic missile defence, but it prohibits the development of such a system. The creation of a BMD is not significantly impacted by the Outer Space Treaty. It does not prohibit the design, development, or use of a BMD system situated in space. Thus, despite its shortcomings, the ABM Treaty is the only agreement that presently gives legal weight to the restrictions on the advancement of a space-based, non-nuclear ballistic missile defence system<sup>7</sup>.

SDI could only remain lawful if it only remained research and did not climb the development ladder. Thus, research was legal; development and deployment weren't.

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<sup>7</sup> Abraham D. Sofaer, *supra* note 1



#### ***5.4 What came after?***

The Strategic Defence Initiative, after being introduced in 1983, was refocused eight years later, after the disintegration of the Warsaw Pact and the Gulf War<sup>8</sup>. With the collapse of the Soviet Union and cuts to the US budget, President George W. Bush authorised a scaled-down form of a new scheme and a revised SDI program known as Global Protection Against Limited Strikes (GPALS) in 1991. It hoped to start a full-scale development of interceptors, control elements, and command elements back in 1993/1994. These space-based interceptors would provide constant, global interdiction capability against missiles with ranges in excess of 600–800 kilometers. This re-focus was influenced by the creation of weapons of mass destruction, especially nuclear, and their means of delivery at increasingly greater ranges and precision. With the collapse of the Soviet Union, SDI became BMD. With the diminished threat posed by intercontinental ballistic missiles, the first priority for the new organisation would be to develop and field theatre missile defence weapon systems.

Till date, the US missile defense policy remains a defensive proposition. The SDI didn't aim to achieve a unilateral strategic advantage. Domestic bipartisanship and international consensus and cooperation on missile defense is believed to be equally important due to increasingly challenging security environment.

#### ***5.5 Clementine***

On January 25, 1994, a spacecraft named Clementine was launched. It was a collaborative effort between NASA and the US Department of Defense's Brilliant Pebbles Programme for the SDI. It returned an enormous amount of scientific data while using the Moon as a target for testing different sensors and spacecraft components meant for BMD applications. A spacecraft glitch prevented the planned observation of an asteroid close to Earth after it left the lunar orbit.

### **6. CRITICISM**

Firstly, the research and development of such a multifaceted project were unavoidably going to be very expensive. Naturally, it created concerns in the US that it would compromise

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<sup>8</sup> Martin Feinrider, *supra* note 4

social programmes like health care, child care, education, food assistance, etc. The critics of SDI doubted the Reagan Administration's willingness to spend so much money on a defence programme that might never work. The concern that this programme, which seemed impossible to achieve, would compromise other social aspects in the US caused an alarm<sup>9</sup>.

Secondly, there were concerns about the testing of this futuristic system without exposing the world to a very deadly attack.

On the international level, apprehensions were expressed about this system going against the theory of deterrence. The very idea of guarding against nuclear attacks using technology that could render nuclear weapons practically useless created an uproar around the world. If the US no longer has the fear of a nuclear attack, who could say it wouldn't strike or have retaliated first?

If the USSR thought that the US was on the threshold of creating and deploying such a wide-ranging defence system, the critics reasoned that the USSR might feel forced to attack before the United States could even complete the defence system. The mere possibility of such an attack on the US meant that the defence system would become more of a liability and could actually add to the US's insecurity and make it vulnerable, not the other way around.

Finally, the SDI effort was perceived by detractors worldwide, including the US, to be a clear breach of the 1972 Antiballistic Missile Treaty. Both the US and the USSR had agreed in the deal to forgo constructing missile defence systems. This was done in an effort to prevent a costly new arms race, and SDI seemed to be just another moniker for a missile defence system.

## 7. CONCLUSION

After the nuclear attacks on Hiroshima and Nagasaki, the brutal and long-lasting repercussions of a nuclear attack were known to the world. If the SDI had been developed, it would have proved beneficial to everyone and could be seen as a peace initiative. However, the SDI didn't only have formidable technological difficulties but also many more complex

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<sup>9</sup> Matthew Lippman, *The Strategic Defense Initiative and the Militarization of Space: Scientific Responsibility and Citizen Resistance*, 9(2) Penn State INT'L L. REV. (1991)

strategic uncertainties. Its legality was challenged, and to develop the BMD that the SDI planned, the ABM treaty would have to be amended when it reached the point of deployment.

The whole concept of SDI becomes muddy when one throws politics into the mix. But the mere idea of eliminating the threat that nuclear weapons pose to mankind is surreal. But it also raises the question of whether the state in possession of this technology will become the real superpower. It would have the power to make the first strike without the fear of retaliation. Thus, the question of its legality was raised rightfully.

The objective of conventions and treaties, and international law in general, is to maintain world peace and solve disputes amicably. In spite of all the conventions and treaties, the world still sees violence on an everyday basis. Wars destroy the lives of innocent people. War, in the platonic sense of the word, is deadly. But when nuclear weapons are brought into it, it becomes deadlier. And as stated before, if one state has the power to obliterate these weapons, it also has the power to make the first strike.

As we are rapidly progressing in science and technology, the chances of a defence system like what SDI proposed become more and more likely to materialise. There is also a good chance that it may become even more advanced than what SDI had proposed. If, in the future, such a missile defence system is actually developed, then it is important that a new treaty is signed or amendments are made to the existing treaties to prevent any one state or its allies from having such imbalanced power over other states.