

Soviet Views on
"Star Wars"

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Timeline

1983-1985: Active Anti-SDI Efforts

March 1983

President Reagan gave his SDI speech on March 23.

General Secretary Y. Andropov argued in an article that SDI would undercut the basic U.S.-Soviet understanding about the interaction between offensive and defensive weapons and result in undermining strategic stability. This article initiated a major Soviet anti-SDI campaign, which was characterized by an increased Soviet attention to the ABM Treaty, emphasis on its absolute necessity as a pivotal factor of strategic stability, and by the claim that the U.S. was breaching the Treaty terms with SDI. The SDI was seen as part of a major U.S. drive to achieve strategic superiority and overturn the international position of parity previously attained by the USSR.

1983

Soviet delegation broke off the Geneva talks in protest against the beginning of the US INF deployments in Europe

Construction of a Pechora-type LPAR started in Abalakovo, near Krasnoyarsk. The planning for the Krasnoyarsk radar was begun in 1980-1 at the Soviet Ministry of Defense. This undertaking was a clear violation of the ABM Treaty.

1983-1984

Field tests of Soviet SA-X-12B "Giant" SAM against the medium range SS-12 missile were begun. The low success rate, one hit for twenty missiles, meant that this SAM needed to be significantly improved before it could serve as an effective ATBM. The less advanced SA-12A "Gladiator" version was being deployed throughout the 1980s with the Soviet Ground Forces for tactical air defense.

Aug. 1983

As a part of the anti-SDI campaign, the Soviet delegation to the UN tabled a draft of a multilateral treaty prohibiting the use of force in outer space from space to earth. This included a ban on creation and testing of ASAT systems. In the same month,

Andropov announced a Soviet moratorium on the placement of Soviet ASAT weapons in space, which would be observed as long as the US refrained from tests of its ASAT system.

Early 1984

Marshal Ogarkov warned against the West's stepped-up development of sophisticated weapons based on "new physical principles" and asserted that a Soviet counter-program must immediately be launched. Ogarkov emphasized the Western military threat inherent in Follow On Force Attack (FOFA) technologies. He did not refer directly to SDI and did not favor a commitment to deploy an extensive Soviet BMD system. In May 1984, in major article in the main Soviet Defense Ministry newspaper, *Red Star*, Ogarkov reiterated his claim, warning that the failure to respond promptly to the challenge of accelerating Western military programs would be a serious error which would undermine Soviet security.

April 1984

The publication of the report by "The Working Group of Soviet Scientists for Peace and Against the Nuclear Threat," the Sagdeyev Report, contained a detailed survey of possible Soviet military countermeasures against the SDI. However, the applicability and

ultimate effectiveness of the proposed measures was questionable and was largely drawn from Western sources.

June 1984

During the opening round of the Geneva Defense and Space talks, the Soviet delegation insisted on the "narrow" interpretation of the ABM Treaty and called for a total ban on SDI research. The initial Soviet position, linking progress in START and INF to US agreement to such ban, was supported by the Soviet military leadership's views were expressed in a June 1985 article in *Pravda*, by the new chief of Soviet General Staff, Marshal Akhromeyev.

Sept. 1984

General Secretary K. Chernenko, emphasizing economic needs and diplomatic means in dealing with the West, refused to support a larger military effort. After his unconditional proposal to the U.S. to resume the Geneva talks, Chernenko demoted Ogarkov. This dealt a temporary defeat to Soviet hawks but by no means ended the debate.

Early 1985

Soviet Foreign Minister A. Gromyko informed his West German counterpart that the Kremlin would view the Bonn government as an “accomplice” in violating the ABM treaty if it helped the U.S. with SDI. Congruent pressure was put on France during Gorbachev’s visit to Paris in the fall of 1985. This part of the Soviet anti-SDI campaign was designed to erode U.S. allies’ support for the program.

May 1985

The Soviet Defense Minister, Marshal Sokolov, speaking on SDI warned that the USSR would not be driven down any military investment path laid out for it by the U.S. Paradoxically, he also confirmed that any SDI deployment would lead to both defensive and offensive countermeasures by the USSR. Furthermore, the director of the largest Soviet center for laser and nuclear fusion research, N. Basov, asserted that the USSR would have “no scientific problem in developing lasers capable of intercepting missiles in space.” This characterized the Soviet’s initial reaction to SDI, which included a concerted effort to make an impression that the USSR could easily offset SDI militarily. Notice how this interestingly parallels the USSR’s position on atomic weapons at the outset of the nuclear age.

1985-1990: The Gorbachev Era

1984

At a meeting with senior Soviet officers, General Secretary M. Gorbachev, called for stringent limits on military expenditures and for channeling more resources toward industrial modernization. Economic considerations then became one of the major factors providing for Soviet policy aimed at preserving the ABM Treaty restraints.

June 1985

Gorbachev forced Romanov, his leading conservative rival, out of the Politburo.

A year later, the CPSU Secretary responsible for overseeing foreign policy, A. Dobrynin, acknowledged that Gorbachev's heightened focus on diplomacy and compromises with the US had been accompanied by "fierce collisions, sharp discussions and painful disagreements: within the Soviet political elite. Some of these disagreements have centered on how to cope with SDI and, more generally, what policy to pursue concerning Strategic Defense.

Sept. 1985 In an interview granted to *Time*, Gorbachev appealed to American public opinion in an effort to erode popular support for SDI.

Oct. 1985 The Soviet delegation in Geneva put forward a proposal for a 50% reduction in strategic weapons, predicated on the prohibition on all SDI research. This proposal was unsuccessfully pushed by Gorbachev during his Geneva summit with President Reagan in Nov. 1985 and at Reykjavik summit in Oct. 1986.

Late 1985 Shortly after the Gorbachev/Reagan Geneva summit, Politburo member Scherbitsky and the Chief of General Staff Marshal Akhromeyev gave a skeptical account of the summit results. They expressed doubts about the possibility of reaching common understanding with the US through negotiations, and claimed that the preservation of peace hinged on increasing the USSR's military might and praised the "firmness" of the Soviet negotiating approach. Subsequently, Gorbachev muted this implicit challenge to his political line and emphasized diplomatic, rather than military means to counter the US military build-up and to derail the American SDI.

Jan. 1986 Gorbachev put forward a plan nuclear disarmament for the year 2000, according to which the US and the USSR would forswear

BMD and reduce strategic offensive arms in a series of cuts. This initiative also comprised a proposal to decouple the SDI and INF issues. Thus led to the signing of the INF Treaty two years later. The Soviet military elite outwardly questioned the value of these policies.

May 1986

The weakening of the linkage between SDI, START and INF became clear to the Soviet delegation attending the talks in Geneva. The Soviets accepted the SDI-type research in the laboratory, but wanted tighter terms of the ABM Treaty to restrict the testing of exotic ABM systems and proposed a US-Soviet agreement on not withdrawing from the ABM Treaty for a minimum of 15 years.

Late-1986

Marshal Akhromeyev emphasized that the ABM Treaty permitted the testing of a land-based ABM system, based on "other physical principles" and able to protect one region of each country. It was hoped such a Soviet system could be a major step toward an effective defense-suppression weapon for use against a US space-based BMD system.

Nov. 1986

At the US-Soviet Reykjavik summit, Gorbachev stated that the USSR would find a relatively inexpensive "asymmetrical"

response to SDI, implying Soviet reliance primarily on offensive and defense-suppressing weapons to counter SDI. However, part of the Soviet top military, including Marshal Akhromeyev and some conservative Party leaders like Scherbitsky, called for creation of the USSR's own extensive BMD system along with augmenting offensive weapons if the US moved to SDI systems deployment. In their view, the Soviet program of economic revitalization could be sacrificed for this end.

May 1987

At a Warsaw Pact summit, a new "defensive doctrine," implying both defensive military strategy and defensive force structure, was adopted. However, in the field of strategic arms, the emphasis remained on the dominance of offensive weapons to the detriment of strategic defense.

Summer 1989

The former chief of Soviet SALT-II delegation, V. Karpov, told a US Congressional group visiting Moscow, that the USSR might consider dismantling the Moscow BMD system in exchange for dismantling of the decommissioned SAFEGAURD at Grand Forks. Soviet analysts began to question in public the value of the Moscow BMD system on the grounds of its technical and cost-effectiveness as well as its implication for strategic stability.

April 1990

A report from the US intelligence community stated that there had been no signs of cuts in the Soviet spending on strategic defense, despite reductions elsewhere in the Soviet defense budget.

May-June

At the US-Soviet summit in Washington, the two sides committed themselves to beginning another round of strategic arms control negotiations soon after completion of the START I Treaty. One of the goals was “to implement an appropriate relation between strategic offenses and defenses.”

July-Aug.

Several articles by Soviet military and civilian experts, proposing US-Soviet cooperation in development of a ground and spaced-based BMD for protection against accidental launches and limited attacks by third countries were published. This reflected growing Soviet and American concerns about the proliferation of nuclear weapons throughout the Third World.

This project will examine Soviet and American views on Ronald Reagan's 1983 proposal to build a national Ballistic Missile Defense System. More specifically, the paper will seek to explain the Soviet Union's strong objections to the Strategic Defense Initiative in the 1980s after having embraced BMD technologies from their inception in both a philosophical and militaristic sense. Although there is substantial literature about the United States' reasons for pursuing BMD in the mid-1980s, there is very little analysis of the Soviet response to this action.

Issues to be Examined:

This paper will focus on the unqualified objection that the Soviet Union had to BMD. The Communist doctrine of inevitable war had prompted an initially positive Soviet view of BMD, seeing as it would be invaluable to the USSR to have some form of protection against from an inevitable nuclear attack from capitalistic powers. Was the subsequent change in opinion on BMD the result of Soviet ideological evolution, or was it an abandonment of ideology altogether in favor of recognizing real world contingencies? The paper argues for the latter explanation. It also advances the following reasons for the Soviet Union's objections to BMD.

1. By the early 1980s, the Soviet economy had stagnated and GNP growth had come to a standstill. Although it had a substantial amount of resources invested in BMD, even more so than the United States did, the USSR simply did not have the capital to engage in an all-out BMD deployment.

2. By the early 1980s Soviet policy makers had come to accept the idea that the US was trying to re-assert its military superiority and that SDI was a dangerous US gambit that would undercut past Soviet strategic gains.
3. SDI would ruin the so-called nuclear "parity" that both parties mutually acknowledged.
4. The Soviets believed that the United States should not pursue SDI because they themselves would suffer in the arena of international prestige if their prime imperial enemy possessed such system, and they did not.
5. The Soviet Union believed that the United States should not pursue SDI because of the progressive spill-over effects that research in SDI would have in related fields of U.S. science, including rocketry, guidance systems, lasers, boost-systems, radar, and targeting devices.

These were Soviet Union's primary reasons for opposing SDI. But the Soviet Union should not be considered as one homogenous whole. Indeed there are a number of main subgroups that constitute its organic whole. The three main groups whose concerns will be focused on in this paper are the Soviet Armed Forces, the Communist Party, and Soviet scientists. Each had their own specific agendas in objecting to SDI, although each were also united in a few key overlapping issues. Furthermore, although it is not the main topic of examination, the views of the Reagan Administration are brought in for clarity and a better understanding of the topic.

The Background:

In the closing days of World War II, the United States unleashed the world's first nuclear weapon, a 12,500 kilo-ton atomic bomb, on the city of Hiroshima. "Little Boy" caused unprecedented devastation—gutting the city and instantly wiping out some 50,000 persons in a flash brighter than the sun. Three days later the U.S. dropped another atomic bomb on the city of Nagasaki with similar effects. A few weeks later, the previously intransigent Japanese, represented by Foreign Minister Mamoru Shigemitsu, capitulated to the Americans aboard the deck of the *Missouri*. The nuclear age had been ushered forth and there was no turning back.

Never before had mankind created a weapon so powerful as to threaten the existence of civilization and mankind's very survival. Military politics were irrevocably changed by the threat of these new super-weapons, which also played a considerable role in the partitioning and reconstruction of post-war Europe. The United States' sole possession of nuclear weapons allowed it considerable leeway in its conflict resolutions with the USSR. Although publicly minimizing the importance of the new weapons, Soviet leader Joseph Stalin privately gave orders to Soviet scientists to develop nuclear weapons as soon as possible. And in 1949, the assiduous work by the Soviet scientific community, augmented by a plethora of nuclear technical data stolen from the West, paid off: the Soviets ended the US's monopoly of nuclear weapons. The subsequent decade saw a rapid technological and numerical development of nuclear forces despite the fact that neither side, though almost continuously active in warfare, used its nuclear forces. By the early 1960s the Enola

Gay bomber that had dropped its sub-megaton atomic bomb on Hiroshima was a hopeless relic of antiquity. The United States had developed the MIRVed ICBMs, that is, Intercontinental Ballistic Missiles with Multiple Independently-Targetable Reentry Vehicles. Gone were the days of a lone pilot flying a plane directly over the target site and dropping a single bomb. Launching a nuclear attack would now consist of an attack by dozens of missiles, each with warheads exponentially more powerful than the ones that leveled the Japanese cities, that were launched from a variety of sources: waves of high-speed nuclear bombers, submarines, or land based silos.

As offensive weapons were achieving ever greater potency, defensive measures to counter these weapons were also progressing, albeit at a relatively slow pace. Work on primitive anti-ballistic missile (ABM) weaponry began during the late 1950s in the US. The Soviets soon followed suit, and were indeed very much in favor of BMD for three primary reasons. Trailblazing the path of space-related technology by sending both the first satellite (Sputnik) and the first man (Yuri Gagarin) into space, the Soviets rightly thought, first, that they would be better able than the Americans to produce a successful BMD system. Second, although marginally ahead of their Cold War adversary in terms of space related technology, the Soviets vastly trailed the Americans in both the “throw-weight” and the delivery systems of offensive nuclear weapons.¹ Thus they favored an active rather than a retributive defensive scheme. Thirdly, the Soviet Union’s immediate post-war economy was growing by leaps and bounds, and the Soviets not unjustifiably felt that their planned economy could sustain such an expensive project.

¹ Office of Technology Assessment, *Ballistic Missile Defense Technologies*, September 1977

Although initial progress was made by both the U.S. and the Soviet Union, the realization of a successful defensive system was a daunting task. Not only were costs in developing such a system exorbitant, but the goal of what essentially comes down to hitting one bullet with another proved unfeasible. Thus both sides came to focus on building up their offensive rather than their defensive capabilities.

Owing to their realization in the 1950s that a successful defensive system was untenable, both sides turned to means other than active defense that would prevent both themselves and their allies from being subject to nuclear attack by the enemy. The strategic plan of action that both sides eventually adopted is known as "deterrence"². Under the deterrence theory, the best way for one power to prevent an attack is to have the ability to threaten its enemy with a sufficient retaliatory force, whereby he would feel compelled not to attack in the first place. This seemingly contradictory double negative can be best expressed in the familiar colloquial phrase: the best defense is a good offense. And, indeed, this is the formula that both Cold War superpowers followed. Stockpiles of nuclear weapons on both sides, rather amoebae-like, doubled and then doubled again.

During the 1950s the official strategic formula of deterrence that the United States followed was known as Massive Retaliation. After the costly buildup of conventional arms that the Korean War caused, U.S. President Eisenhower favored the buildup of nuclear arms as a relatively cheap deterrent to further Soviet aggression. The Radford Plan explicitly called for the substitution of nuclear power for manpower in defending Western Europe against the superior conventional forces of the Warsaw

Pact. Thus under Massive Retaliation, the United States threatened the Soviets with the prospect of using its vastly numerically superior nuclear force to obliterate the Soviet Union if its leaders should use even a single nuclear weapon against the United States (the Soviet stockpile was insignificant at the outset of the decade). Under this theory, a nuclear war was deemed winnable by the United States.

However, in the early 1960s the Soviet Union had developed a nuclear arsenal that, although not yet comparable to that of the US in a technical and numerical sense, was still capable of inflicting unacceptable levels of damage upon the United States. The United States' notion of Massive Retaliation became an outdated mode of thinking. If the United States were now to retaliate massively against the Soviet Union, the Soviet Union could now reciprocate.

As early as 1951, the US, specifically Secretary of State Dean Acheson, recognized that a determined U.S.S.R could eventually reach nuclear parity with the U.S. But in 1962, Secretary of Defense Robert McNamara made a radical leap forward by publicly acknowledging this parity and deciding to base a new strategy upon it. In a commencement speech at the University of Michigan, McNamara unofficially laid out the framework of his new strategy of deterrence, Mutually Assured Destruction, aptly known thereafter simply as MAD. Under the MAD theory, both superpowers would be prevented from attacking each other because each side accepted that by initiating an attack, it would subject itself to an assured and unacceptable level of destruction by the other side. Missile defenses were deemed not cost effective. Therefore, mutual vulnerability, not defensive capabilities, would be the stabilizing force of MAD.

² US Congress, Senate, Committee on Foreign Relations, *Strategic Weapons Proposal Hearings. First Session on the Foreign Policy and Arms Control Implications of President Reagan's Strategic Weapons*

The Soviet Union initially rejected the theory of MAD. According to the Marxist-Leninist paradigm, the Clausewitzian notion of war as a continuation of policy by military means was not altered by the emergence of nuclear weapons. Soviet policy makers felt that the West's notions of excluding nuclear weapons from this framework of policy was "faulty bourgeois ideology." Above all, the Soviet Union initially felt that a nuclear war was still winnable.

But as with so much of Soviet ideology, the disparity between "correct" Marxist-Leninist ideology and real world contingencies became untenably great. By the late 1960s the Soviet Union was ready to change its tune and abandon the notion that it could prevail as the victor in a nuclear exchange. It, too, began to now accept that both the Soviet Union and the United States possessed offensive arsenals that could assure annihilation of one another if ever an exchange of nuclear weapons were to occur. The Soviet Union came to relish the recognition of Superpower status that the United States had accorded it. Soviet military and political leaders went so far as to cancel the push for strategic superiority over the West. The fact was they had caught up. The entire world would now be forced to follow suit and acknowledge the Soviet Union's rough parity with the United States in geopolitical power relations.

The mutual acceptance of MAD paved the way for a primary watershed event in the history of missile defense, the 1972 ABM Treaty. An integral part of the SALT I arms control treaty, the ABM Treaty forbade either side, "to develop, test, or deploy ABM systems or components which are sea-based, air-based, space based, or mobile land-based." In this treaty both powers codified the advances in MAD that they had made in the previous decade. The notion that offensive power was a stabilizing factor

was explicitly stated. Furthermore, the ABM Treaty banned active defensive measures such as ABM systems because they were anathema to this stability. John Newhouse stated as such: "The ABM Treaty had at last been signed, with each side renouncing the defense of its society and territory against the other's nuclear weapons. That is the treaty's historic essence."³ Soviet Premier Leonid Brezhnev encapsulated the general Soviet political view in this statement from 1975.

International détente has become possible because a new relation of forces has been established in the world arena. Now the leaders of the bourgeois world can no longer entertain serious intentions of resolving historic dispute between capitalism and socialism by force of arms. The senselessness and extreme danger of further tension are becoming increasingly obvious under conditions where both sides possess weapons of colossal destructive power.⁴

Unfortunately, the spirit of optimism and the reduced tensions between the superpowers, comprising the so-called détente that followed on the heels of SALT I, were to be very short lived. Seeds of discontent lay at the very heart of the treaty; it was a compromise that pleased no one.

SALT I froze land-based ICBM deployments at the level that they would reach as of July 1st 1972. This allowed the United States 1,054 ICBMs, the level that had been maintained by the US since the mid-1960s. The Soviets, however, had been steadily increasing their nuclear stockpile throughout the years, and by the July cutoff they had a force of 1,618 ICBMs. Furthermore, in regard to SLBMs and BM subs, the Soviets also had a significant numerical advantage: They were allowed 62 boats and 950 missiles in comparison to the US's 44 boats and 710 missiles. American conservatives accordingly criticized the treaty for seemingly authorizing nuclear superiority for the Soviet Union by giving it superiority in both numbers and overall throw weight of

³ Freeman Dyson, *Weapons and Hope*, Harper and Row, 1984 pg. 88

missiles. Paul Nitze predicted doom in the form of a Soviet “first-strike,” whereby the Soviets would effectively obliterate the triad of nuclear forces that the US relied on by using only half of their own arsenal. He predicted, in effect, a nuclear Pearl Harbor.

Liberals were no more pleased with the treaty than were conservatives. In their eyes, SALT I was not a viable arms control treaty because it was not inclusive of all nuclear weapons. Indeed, SALT omitted limitations regarding MIRVing RVs, nuclear bombers, forward based systems, and mobile ICBMs. Liberals argued that by not putting limitations on MIRVing, arms control measures would continue to be negligible. And in fact they were right. *The Wall Street Journal*, confirmed this by calling the years following SALT I as, “a massive and deliberate buildup of arms by both sides.”

Thus in 1980, on the heels of the disastrous collapse of the superpower détente, citizens of the United States of America overwhelmingly elected hawkish Republican Ronald Reagan. Under the promise of combating the “Evil Empire”, Reagan stated that “MAD was Nuts!” Deeming both the Soviet Union and nuclear missiles immoral, Reagan decided to implement a *defensive* measure against them. His answer: A shield in space. Star Wars. In his historic March 23 speech in 1983, Ronald Reagan declared:

What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?...I call upon the scientific community in our country, those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us

⁴ L.I. Brezhnev, *Pravda*, June 14th 1975 (Translation)

the means of rendering these nuclear weapons impotent and obsolete.⁵

With these final lofty remarks from his televised address of March 23, 1983, the floodgates to one of the most intense military debates of the nuclear age were opened, producing debate that would have global implications. The President proposed the outlines of his Strategic Defense Initiative. Dubbed "Star Wars" owing to its fantastic and futuristic nature of the project, the plan would eventually pump billions of dollars into military research and development in the futile attempt to create a "shield in space." This shield was to consist of technology and military hardware that would be able to defend against an ICBM attack by intercepting and destroying the oncoming missiles before they could reach their targets.

The SDI plan unveiled by Reagan called for the abandonment of the hitherto bilaterally accepted doctrine of deterrence of nuclear war through the sole use of offensive weapons, an orthodoxy that had been codified by the 1972 ABM Treaty. Reagan announced this new initiative without prior consultation with the Soviets, America's allies, Congress, or even his own cabinet members including Secretary of State George Schulz. It called for a radical shift from the nuclear doctrine of deterrence to that of active defense.

The plan immediately came under fire on the home front. Liberals, conservatives, and the scientific community battled one another on a wide variety of issues connected with SDI. The technical feasibility, the cost effectiveness, and the time frame were among the issues that provoked particular controversy.

⁵ Ronald Reagan, *Peace and National Security*, U. S. Department of State, Bureau of Public Affairs, Current Policy 472 (GPO, March 23, 1983) pg. 7

Although SDI brought a mixed response from the American people, there was an important entity that was stridently opposed to SDI from its very beginnings: the U.S.S.R. As seen from the eyes of the Kremlin, SDI posed an enormous threat to the very sovereignty and well being of the Soviet Republic. On the heels of Reagan's unveiling of SDI, General Secretary Yuri Andropov stated that SDI would "undercut the basic understanding about the interaction between offensive and defensive weapons that the superpowers had reached in the SALT I negotiations." The rest of the world was also wary of the United States developing SDI. During the 27th session of the U.N. Committee on Peaceful Uses of Outer Space, representatives of socialist, non-aligned, and even several capitalist nations stressed in their speeches the importance of opposing attempts to turn outer space into an arena of the arms race. Many participants in the debate even supported the Soviet proposals to ban the space arms race altogether.

But why? Only a few decades earlier the Soviet Union had defended the ability of each sovereign nation to create whatever military equipment it desired. For example, Soviet general N. Talensky wrote in October of 1964 in a leading Soviet journal:

When the security of a state is based only on mutual deterrence with the aid of powerful missiles, it is directly dependent on the goodwill and designs of the other side, which is a highly subjective and indefinite factor...The creation of an effective anti-missile system enables the state to make its defenses dependent chiefly on its own possibilities and not only on mutual deterrence.⁶

In accordance with Talensky's argument, the Soviet Union had generally during this period propounded the political theory of active defense for itself. This was the

Soviet Union that, at least in official theory, held to the notion of an inevitable clash between the forces of socialism and the forces of capitalism. The Soviets had renounced a belief in the peaceful intentions of the West, and they had invoked such skepticism to justify their pursuit of a defensive as well as an offensive nuclear weapons strategy.

Soviet military doctrine, as conceived by the Soviet military and political leaders, has two functioning levels: the governing political or political-military level, and the so-called military-technical level.⁷

The former represents state policy and is established by the leadership of the Communist party. The latter is the realm of the professional military leadership, which is based upon military science and is elaborated in military strategy. The military-technical level is subordinate to the political level, which establishes the aims and allocates the resources that the military leadership then manages. Military strategy is an arm of political strategy, and thus, military policy is a component of national policy.

Therefore, Soviet military doctrine readily assimilated the technological prospect of BMD at its inception. Indeed, if one were to point to a bias in Soviet military doctrine, it was to emphasize the importance of strategic defense, rather than to rely upon a strategic offensive capability for deterrence as the United States had done. By the early 1960s Soviet leaders pressed for BMD just as they had pressed for its strategic defensive predecessor, strategic air defense, in the early 1950s. So Soviet efforts were carried forward with the modestly effective Galosh ABM deployment around Moscow in the late 1960s. These efforts were not affected by the ouster of Nikita Khrushchev in

⁶ Soviet general N. Talensky, *International Affairs* (translated), October 1964 pg 3

⁷ A. Carter and D. Schwartz, eds., *Ballistic Missile Defense*, The Brookings Institution 1984 pg. 288-290

1964, although bluster and bluff in claims of military capability were sharply curtailed. Khrushchev, for example, had claimed that the Soviet Union had developed an ABM missile that could "hit a fly in outer space."⁸ Such obviously false claims were dropped by the political and top military leadership, however, some of the Soviet military leaders (particularly those charged with strategic defense) did continue until the late 1960s to claim a growing capacity to fulfill the BMD mission.

But the 1972 Anti-Ballistic Missile Treaty brought a radical change to this thinking. Gone was the notion that strategic defense was a viable option; in its place was the acknowledgment of mutual destruction in the event of a nuclear exchange.

How, then, had Soviet ideology, and real world circumstances, changed from the inception of the Cold War? Why did the Soviet Union come to sign the ABM Treaty on May 26, 1972, in which Point 1 of Article V clearly puts limitations on the sovereignty of the Russian military. The evidence seems to show that by the time that the U.S.S.R. reached nuclear parity with the United States, the top levels of Soviet leadership were making decisions that were not faithful to the maxims of Marxist-Leninism, which called for an inevitable clash of forces, but were instead acting in accordance with "real world" realities. Marxism-Leninism based on historical determinism, a belief that socio-economic forces, through a struggle of classes, are the driving force of history. With the advent of the Soviet Union as a socialist state, the question of war between states as a possible form of class struggle arose—indeed, it was the central fact of international life to the Bolshevik leaders. Successive Soviet leaders have seen the greatest danger to the socialist cause as coming from the capitalist military threat; the one mortal danger faced during the first half-century of Soviet rule

⁸ Theodore Shabad, "Khrushchev Says Missile Can 'Hit a Fly' in Space," *New York Times*, July 17, 1962

after victory in the Russian Civil War and the defeat of foreign interventions was the attack by Germany in World War II. Since that war the greatest threat in Soviet eyes has been the American nuclear arsenal.⁹ Thus when Ronald Reagan announced his intentions to create a weapons system to render obsolete Soviet ICBM's, which were the only realistic form of defense that the U.S.S.R. had against the US's nuclear arsenal, the Soviet's emphatically objected.

Thus, after receiving such heated criticism the President was forced to seriously reconsider the course of the SDI initiative. After all, peace in the nuclear age is ephemeral in its very nature. All treaties, whether they be the SALT accords or the ABM Treaty rely on the twisted notion of "trusting an enemy that you cannot trust." This meant that the United States and the Soviet Union must each accept the notion that their arch-enemy would not use its military trump card: atomic weapons. Would it not be better, Reagan argued, if America could trust an American made defensive system rather than a Soviet proclaimed promise to protect the American people?

The Soviet Union vehemently disagreed. It felt that if the United States were to push ahead with the SDI project, then the tenuous peace that existed between the two might collapse. In the Russian periodical *Pravda* A. Borovik commented as such: "Instead of guaranteeing reliable defense and security, space weapons will be a major destabilizing factor in the current, already sufficiently precarious military-strategic situation."¹⁰ What were the destabilizing factors at which Borovik hinted?

To answer this question, we must consider the various political powers that comprised the Soviet Union. For though they were all united in their opposition to

⁹ Raymond L. Garthoff, *Deterrence and the Revolution in Soviet Military Doctrine*, Brookings Institution, 1990 pg. 29

SDI, Soviet scientists, the Communist Party, and the military all had slightly different reasons for decrying SDI.

Shield in Space: Scientific Possibility, Political Device, Pure Fantasy?

Soviet Military

The Soviet Military objected to SDI for three primary reasons:

1. The prospect of the militarization of space.
2. The development of the ever-illusive "first-strike" initiative by the Americans.
3. SDI's usage as offensive weaponry that would lead to a spiraling of the arms race.

One of the primary concerns of the Soviet military was that SDI would lead to the American militarization of space, an arena that Soviet military had neither the means or the technical know-how to accomplish. The Soviet military did not genuinely fear that the United States could produce an infallible space shield. Its first hand experience with the technical difficulties and exorbitant costs of its own ballistic missile defense system had largely convinced the military that a truly infallible space shield could not be created. In fact, the world's only operational antiballistic missile system at the time, the Galosh system around Moscow, drained millions of dollars in annual upkeep costs, yet it had proved only marginally effective against simulated attacks. In an interview with the *Washington Times*, defense expert Jack Mendelsohn had this to say about the Soviet's ballistic missile defenses: "The hundred ABM interceptors around Moscow are a little bit like nine thousand antiaircraft or air-defense weapons that are available to the

¹⁰ *Pravda* July 5th 1984 (translated)

Soviets. We do not take them very seriously.”¹¹ Since the Soviet military did not disagree with this assessment of its own ballistic missile defenses, it was not genuinely concerned that the US’s Strategic Defense Initiative would render its new massively powerful, multi-warhead SS-18’s obsolete.

But the military was concerned that the essential Soviet satellites that guided the SS-18s would be threatened by the weaponry that SDI proposed. By this time both the Soviet Union and the United States had dozens of military satellites orbiting the earth. The purpose of these satellites was, and still is, to act as the “eyes in the sky” for each respective country. These satellites are essential for the successful completion of a nuclear attack. Without the satellites, their owners are left “blind” as to the goings on in regions not their own. Consequently, when the Soviet Union heard Ronald Reagan announce that America would strive to create a laser or particle-beam based space system that would shoot down oncoming missiles, it logically concluded that such a system could also have powerful ASAT (Anti-Satellite), or offensive, capabilities. In *Pravda* A. Borovik states: “The U.S. Government imagines a system capable of simultaneously monitoring the movements of electronic means of penetration, warheads and thousands of decoys. If the President considers that possible, how can he assert that no observation system capable of monitoring tests of certain antisatellite weapons systems should be put into space?”¹²

How, indeed! Borovik’s conclusion was a logical one. In defense of his Star Wars project, Reagan and his DoD staff, most notably Secretary Caspar Weinburger, nonetheless maintained that the sole purpose of SDI was defensive in nature.

¹¹ Steven W. Guerrier and Wayne C. Thompson, eds., *Perspectives on Strategic Defense*, Westview Press 1987 pg. 222

TASS military-political news analyst Boris Shabayev wrote, "What would such an anti-missile system mean (in military terms) in practice should it be developed? The Pentagon strategists would then be greatly tempted to risk pressing the button with impunity, since, according to their views, the absolute reliable shield—a new component of the forces—is called upon to neutralize a reciprocal strike on the part of the USSR, that is, to destroy in outer space the Soviet missiles that would survive the American first nuclear attack."¹³

This paragraph sheds a great deal of light upon the views of the Soviet military. Shabayev claimed that by implementing the defensive system of SDI, the U.S. would correspondingly magnify the ease of use, the power, and the productivity of its offensive weapons. Herein lay the heart of the argument between the Reagan Administration and the Soviet military. The Americans proposed to implement a defensive system and maintained that they had nothing but peaceful intentions in doing so—that they were in no way trying to gain strategic superiority over the Soviet Union. Conversely, the Soviets maintained that SDI was an intrinsically offensive weapon—that under the subterfuge of being labeled defensive, it was really an underhanded attempt by the United States to first regain nuclear superiority over the Soviet Union, and then to launch a pre-emptive first strike against it with impunity.

Nonetheless, Ronald Reagan insisted on pushing ahead with what was a justifiable project in his mind, and he even went so far as to note on at least one occasion that he would share the secrets of SDI with the Russians once it had been completed.

¹² A. Borovik, *Pravda* July 5th 1984 (translated)

¹³ Boris Shabayev, *Moscow News* July 5th 1983 TASS (translated)

Could the United States truly have had an altruistic aim in creating SDI—what it claimed was a strictly defensive system? Always wary about promises from the imperialist USA, the Soviets did not accept Reagan's rationale. After all, a few years prior to the unveiling of SDI, the Soviet Union had unilaterally pledged not to militarize space. Furthermore, since 1980 the Soviet Union had begun to express apprehension that the U.S.'s non-ratification of the SALT II arms control treaty meant that the U.S. was planning on regaining nuclear strategic superiority over the Soviet Union.

The third expressed objection that the Red Army had to SDI was that it was intended as a means of purposely furthering the escalation of the offensive arms race. The previous five years leading up to the unveiling of SDI had witnessed an enormous buildup and modernization of America's Armed Forces. First under President Carter and then under President Reagan, the United States pumped vast quantities of capital into its military R&D and contracted with the military-industrial complex to churn out the latest in modern technology. At a conference at the Virginia Military Institute, Soviet representative Sergei Kislyak stated,

SDI comes in a package: a further offensive build-up and so-called defensive weapons. If you take a look at the budgetary estimates of this administration for the next fiscal year, you will see that strategic modernization programs will be continued along with SDI. Thus, in our view, what we face in this country is the attempt to continue an offensive build-up, plus SDI research and development.¹⁴

At the same time, the United States had enjoyed an overwhelming superiority in nuclear weapons and delivery systems during the 40s and 50s but chose not to use

¹⁴ Steven W. Guerrier and Wayne C. Thompson, eds., *Perspectives on Strategic Defense*, Westview Press 1987 pg. 97

them. It simply would not make sense for the United States to choose a time during which its enemy had the biggest ICBMs ever created (SS-18s) to launch a pre-emptive attack.

Just as the Soviet Union can be broken up into different subgroups each its distinct unique objections to SDI, so too can the Soviet Military be broken down into its respective branches (Strategic Rocket Forces, Air Force, Army, Navy, Air Defense). An interview with Marshall Vladimir Tolubko, Commander in Chief of the Strategic Rocket Forces, sheds light on the Rocket Forces' concern with the SDI. When asked by a *Moscow News* correspondent whether he believed Reagan's claim that SDI actually lowered the danger of a nuclear war, he replied:

Plans for setting up a broad-scale ABM system, which would make the USA safe from the crushing reply strike, reflect the aspirations of the aggressive imperialist circles to break up the balance of forces...The Washington leaders' intentions are very dangerous. Firstly, the possession of a broad-scale ABM system creates an illusion of impunity and breeds the desire to capitalize on one's own advantage, before the other side develops a similar system. Therefore, the risk of unleashing a nuclear war increases sharply.¹⁵

Tolubko's remarks well illustrate the main criticisms that the leaders of the Strategic Rocket Forces, who were entrusted with the Soviet Union's nuclear weapons, had of SDI. First of all, Tolubko invoked the notion of MAD even though he did not cite the acronym directly. It is clear by his comment about the 'balance of forces' that the tenets of MAD, which base peace on a mutual acknowledgment of destruction, had permeated the highest levels of Soviet Military thought. Tolubko argued that the creation of the BMD system would break the tenuous balance upon which peace between the Soviet Union and the United States teetered on.

Secondly, Tolubko raised the notion of "illusion of impunity." He and other high ranking members of the Strategic Rocket Forces no doubt worried that the mindset of their American counterparts would change. Instead of being fearful of a devastating nuclear reprisal from the Soviet Union should they dare to launch the first attack, the American attitude would become one of smug complacency, content with the knowledge that their space shield (SDI) would intercept the Soviet Union's retaliatory response. As the leader of the Strategic Rocket Forces, Tolobko recognized that this would undoubtedly have disastrous effects

It might have been logical for the separate branches of the forces of the Soviet Union to espouse similar points of view on SDI, but they did not. The Red Army was notoriously silent on the topic of SDI. It continued to cling to the Stalinistic anachronism that superior conventional forces were necessary to wage successful war. The Navy argued for increased funding for its SLBMs, which by the very nature of their deployment are impervious to a first strike. The Air Force and Air Defense both argued flip sides of the same coin. Whereas the Air Force called for more intercontinental bombers to strike at America, the Air Defense called for a new generation of ground based air batteries to defend Soviet space. Thus, the competition for resources seemed to have driven the viewpoint that each branch embraced.

Another member of the General Staff, General Nikolai Chervov, used the "nonfactor" argument technique first laid out by Stalin with regards to nuclear weapons. In an interview in a major Soviet paper Chervov stated that "as a matter of principle,

¹⁵ Author listed only as "News Correspondent", *Moscow News*, Jun 12th 1984 (translation)

there does not and cannot exist any absolute weapon. 'Absolutely reliable antimissile defense' is just a mirage."¹⁶

There was no consensus among the General Staff as to how best to confront the problem of SDI from a military standpoint. Instead, it seems that to a certain degree departmental self-interest, careerism, and rivalry drove each respective branch of the Soviet Armed Forces to adopt a particular position. Still, the Soviet Military in general objected to SDI because of the three-fold threat of the militarization of space, the development of the ever-illusive "first-strike" initiative, and SDI's usage as offensive weaponry that would lead to a spiraling of the arms race.

Soviet Scientists

Soviet scientists also opposed the Strategic Defense Initiative from its outset. They expressed two main objections to it: First, Soviet scientists never accepted the notion that SDI could become successfully operational, and thus they questioned Americans' ulterior motives for pursuing the project. Second, Soviet scientists worried that the money that would be allocated to the American scientists in the form of R&D contracts would enlarge the already sizable gap between the Soviet Union & the United States in terms of technological sophistication. The following interview between Moscow radio commentator Vladimir Pozner and academician Yevgeniy Velikhov offers a good example of the first objection:

¹⁶ Col. Gen. N. Chervov, interviewed in *Pravda*, (translated) April 29, 1983

[Pozner] Academician Velikhov, in our previous discussion you said that the so-called strategic defense initiative proclaimed in America as a result of President Reagan's star wars speech is actually not novel. You pointed out that in the seventies common agreement was reached concerning the impossibility of creating a flawless antiballistic missile defense system (allusions to the 1972 SALT I Treaty) and that therefore any attempt to develop an antimissile capability would be interpreted by the other side as a first-strike desire. (reference to the bi-laterally accepted deterrence theory) However, since then years have elapsed, technology and science have advanced. In his speech of 23 March 1983 Reagan alluded to new defensive systems. Perhaps there has been some change after all?

[Velikhov] Over that period nothing new has occurred insofar as technology and science are concerned. After the President's speech there was talk of discoveries in the area of laser and particle beams, but in fact studies conducted by such unofficial organizations as the Concerned Scientists—that's some 100,000 American scientists—and the federation of American scientists, as well as the most official studies, such as those conducted by Congress' Technology Assessment Office, came to the same conclusion as did our studies conducted by the committee of Soviet scientists for peace and against nuclear war. All of them looked into one question: Is it possible to create a real defensive weapon based on some new principle?

[Pozner] And the answer is?

[Velikhov] The conclusion is that no, this cannot be done.

The Russian print media constantly sought to exploit America's freedom of speech. Throughout this interview, Velikhov frequently referred to American academics who objected to SDI. In the leading Russian papers and journals, Soviet authors directly quoted American opponents in their opposition to SDI. The following is another good example of the Soviet print media using American words to smear SDI: "Rear Admiral G. LaRoque (retired), director of the plans for the militarization of space, has said that 'the Reagan administration's military budget is based on the idea of the need to prepare to wage a nuclear war and ensure victory in it. The postulate of the possibility of waging a nuclear war is thus the main one in U.S. military plans.'"¹⁷ Because the Soviet press was highly censored, we may never know if there was a sizable contingent of Soviet intellegensia who favored a cooperative transition towards

¹⁷ Author listed only as "Academician on Space," *Pravda*, (translated) Jun 2nd 1984

a defensive, rather than a deterrence-dominated, world. As the interview continued, Pozner and Velikhov stated the "real" intentions of SDI.

[Velikhov] For instance, if we take the most official study, that of the office of Congress, we see that present day lasers must be improved 10 million times to achieve the capability of destroying missiles in their early launching stages. Ten million times! Imagine that we had to improve the internal combustion engine 10 million times: That would mean one of two things—either our car's engine would be about the size of a watch battery, or we would be able to drive 10,000 times around the equator on one gallon of gas. Is such an improvement possible?

[Pozner] No, not with the internal combustion engine as we know it today. But if something radically new was invented?

[Velikhov] But the laser is not something radically new. We have lived with it for 30 years now. We know how it is made, and we have a long experience with it. In short, to achieve that end calls for endless work, and it is impossible to count on it being achieved soon, let alone on its having already been done.

[Pozner] So what it all boils down to is a political slogan.

It is clear that Soviet scientists considered the strategic defensive initiative to be a dubious proposition at best. But what about the American scientists, circa 1983? Did they really believe that they could deploy an effective ballistic missile defense? The answer is both yes and no, depending on one's standards for specificity of defense.

Does the United States have the technological ability to destroy an incoming missile by intercepting it with another missile? Most certainly. The worldwide public watched in amazement during the evening of January 18, 1991 when video recorded a Patriot missile intercepting an incoming Iraqi Scud-B missile, smashing it to smithereens. As noted earlier, this technology was first developed in the early 1950s. But did the United States have the technological ability to blunt the full force of a MIRV'd ICBM attack from the Soviet Union, thus fulfilling Reagan's challenge? The answer to this question is undoubtedly no. Project head General Abrahamson

admitted, "A perfect astrodome defense is not a realistic thing."¹⁸ A man with similarly impressive credentials, associate director of the MIT physics department's Program in Science and Technology for International Security, Kosta Tsipis, also doubted the project's success and he likely spoke for the most American scientists: "We are witnessing a tragedy, a cruel hoax, a repetition of the pattern that saw the government spend two billion dollars on a nuclear-powered airplane in the nineteen fifties."¹⁹

An unusual "Appeal to All Scientists of the World," signed by 243 prominent Soviet scientists and public figures, strongly opposed President Reagan's initiative and endorsed arms limitations. It included a statement that "there are no effective defensive means in nuclear war and their creation is in practice not possible."²⁰ Academician Roald Sagdeyev, director of the Space Research Institute of the USSR Academy of Sciences stated that the, "possibility to create an 'impenetrable missile shield are groundless from a scientific and technical point view."²¹ Clearly the Soviet scientists were united in their opinion that a successful BMD system was impossible.

This discussion cannot enter into the arcane technical details to satisfy the readers' questions as to why both Soviet and American scientists thought SDI was impossible. Suffice it to say that American technology as we know it (both now and certainly at the time of SDI's announcement) cannot provide a leak-proof nuclear umbrella. Here is a partial list of problems that an operational SDI system presented circa 1983:

¹⁸ Craig Snyder, *The Strategic Defense Debate*, University of Pennsylvania Press, 1986 pg. 14

¹⁹ Ben Bova, *Assured Survival: Pulling the Star Wars Defense in Perspective*, Houghton Mifflin Company Boston, 1984 pg. 151

²⁰ *Pravda* (translated), April 10, 1983 pg. 2

²¹ Academician on Militarization of Space, *TASS* (translated) June 7, 1984 pg. 6

1. SYSTEM COMPLEXITY

A system capable of defending against with 3,000 to 6,000 launchers and 10,000 to 25,000 reentry vehicles will be incredibly complex. It will be necessary for the system to deal with a constantly changing attack involving a great many uncertainties. No system has ever been engineered with this level of complexity or uncertainty in mind. Key technical issues for such a system are:

- its architecture;
- the information flow within the system;
- the concept for information storage and management;
- the concept for semiautonomous battle management.

2. DISCRIMINATION OF POSSIBLE TARGETS

A likely countermeasure to this BMD system will be the use of decoys, radar chaff, and other techniques for rendering the real targets undetectable and untrackable. But techniques and technologies to provide unequivocal discrimination of targets in the exo-atmosphere do not exist and must be invented. More than any other issue, discrimination may be the one which prevents a successful search for an effective strategic defense system.

3. KILL ASSESSMENT

Some weapons, though capable of disabling a targeted reentry vehicle or MIRV bus, do not leave an unequivocal confirmation that they have killed their target, so technologies and concepts for kill assessment must be found in order to avoid exhaustive reengagement of already disabled targets.

4. SURVIVABILITY OR RESISTANCE TO ATTACK

Both tactics and doctrine will be the key to the survival of space, air, and ground-based assets of any BMD system. However, technologies to harden and protect system elements against both nuclear and conventional weapons attacks will be needed.

5. COST OF SPACE DEPLOYMENT

Large-scale deployment of strategic defense system elements in space may be required. Hundreds of thousands, or perhaps millions, of tons may require lifting to low earth orbit. Currently, the space shuttle is the primary American means for space lift, but each trip can lift no more than 30 metric tons and a volume of about 380 cubic meters into low earth orbit, and the cost for lifting one pound is about \$4,000. The cost to lift mass into low earth orbit must therefore be reduced to less than \$100 per pound to make space-based elements of a strategic defense system affordable.

Thus as shown from the above description of SDI's potential problems, it is not difficult to imagine why scientists would doubt that the SDI project was one that the US thought that it could bring to a successful completion.

The second prime concern for Soviet scientists was the increasing technological gap between the two countries. During the decade prior to SDI, it is estimated that U.S. investment in R&D was growing at greater than 9% per annum, whereas Soviet investment had only grown by 3.5% over the same period of time. An unidentified Soviet scientist noted:

What really worries our leadership about America's space-based defense is not the new military capability. It is the effort to rally Western Europe and Japan into a high-tech research alliance with America that will condemn Russia to permanent mediocrity.²²

²² *U.S News & World Report*, March 3, 1986

From its very inception, official Soviet literature always championed the importance of scientific-technological progress. Often times, Soviet leaders were downright apocalyptic: "We are fifty or a hundred years behind the leading countries [technologically]. We must make up this distance in ten years. Either we do it, or we shall perish, stated Stalin in 1931." This is, of course, a bit extreme. But Soviet officialdom never stopped repeating that theme. As Colonel V. Bondarenko, a Soviet military expert, writing forty years after Stalin stated:

The contemporary scientific-technical revolution is one of the main sectors of the historic competition between capitalism and socialism. an important field for the active use of its achievements, therefore, is the armed defense of our country and the entire socialist commonwealth.²³

In fact, Soviet military science was already lagging behind its superpower adversary on many significant fronts. The following table shows the huge disparity between Soviet and American technologies.

Table 9-1. Relative U.S./USSR Standing in the Twenty Most Important Basic Technology Areas, 1985.

Technology	U.S. Superior			U.S./USSR Equal	USSR Superior
	Lead Increasing	Lead Stable	Lead Decreasing		
Aerodynamics/fluid dynamics				X	
Computers and software	X				
Conventional warheads				X	
Directed energy (laser)				X	
Electro-optical sensors		X			
Guidance and navigation			X		
Life sciences		X			
Materials			X		
Micro-electronic materials and integrated circuit manufacturing		X			
Nuclear warheads				X	
Optics			X		
Power sources				X	
Production/manufacturing		X			
Propulsion			X		
Radar sensor			X		
Robotics and machine intelligence		X			
Signal processing		X			
Signature reduction (stealth)		X			
Submarine detection			X		
Telecommunications		X			
	1	8	6	5	0

Soviet scientists knew that the militarization of space was a process in which overall strength was based almost primarily on qualitative aspects (as opposed, say, to the Warsaw Pact's superior ground forces in Europe which were a net result of both qualitative and quantitative aspects) and it was thus opposed to entering into another seemingly un-winnable military battle with the United States.

There can be little doubt that Soviet scientists, considering all of the potential beneficial spin-offs of the new technological race that triggered SDI, understood that the Soviet Union might increasingly become an underdeveloped country from an economic and technological point of view. Loren R. Graham, a professor at the Massachusetts Institute of Technology and a long-time student of Soviet science, once stated of the Soviet scientific community: "They realize that, if they do not make significant advances soon, they will be left permanently behind in key areas."²⁴ The technological spinoffs accrued from SDI research would have undoubtedly increased the superiority that the US already enjoyed in electronic weaponry at the time. "What you stuff into a helicopter or aircraft used to be minor", says one industry executive. "Now (1986) the electronics and avionics dominate. Electronics account for 50% of the cost of some of today's combat aircraft."²⁵ In other words, although two planes may be exactly alike in terms of external characteristics (size, speed, cruising altitude, etc.) the plane with a superior electronic system enabling it to sense, calculate, and discriminate targets from a greater distance, is the one that will have a marked advantage over its anachronistic foe. Countries with first hand experience with Soviet vs. Western equipment (i.e. Egypt, Syria, Iran, Iraq, Libya) could attest to this fact.

²⁴ *U.S. News & World Report*, October 1, 1984 pg. 16

²⁵ *Business Week*, July 28, 1986, p. 31

Soviet scientists knew that if they continued to lag behind their Western counterparts in matters of technology, then Soviet power in the Third World would erode.

Furthermore, another tenet of the Soviet regime would be undermined: "The socialist socioeconomic system is more productive, and the future belongs to it."

Soviet scientists presented the Red Army with three military means of successfully undermining an operational space-based BMD. First, it could realistically develop and deploy defense-suppression weaponry that could attack the U.S. space stations directly. These weapons could take the form of space based ASAT weapons or newer ground-based lasers. Second, the Soviets could simply upgrade their strategic missile forces in order for them to bypass the space stations' defenses. These upgraded features and measures included new penetration aids, decoys, the development of fast-burn depressed-trajectory boosters, the camouflaging of missile launchings through the use of smoke screens, and the use of multi-layered booster casings and ablative coatings to provide missile hardening against lasers. Third, the Rocket Forces could simply break out of the limitation of fractionation by adding more than 10 RVs on each SS-18. The key point with respect to these countermeasures is that despite their own enormous cost, they paled in comparison to the costs of a BMD system.

Herein, then, lay the dilemma for the United States: Should it, at an exorbitant cost to itself, create an imperfect BMD system that might not be cost effective at the margin—one whose defensive capabilities, that is, could be overcome by cheaper countermeasures? This is not an easy question to answer. The main benefit of such a BMD system was obvious: partial military protection from nuclear attack. However, the drawbacks were numerous and multi-faceted.

Both the American and the Soviet scientific communities felt dubious as to the tangible benefits of the SDI project. Soviet scientists dismissed the project as an outright failure. And even the most optimistic American scientists, instilled with the haughty egotism of America's seeming infallible ability to conquer any scientific challenge, and particularly cognizant of their predecessors' daunting successes with the Manhattan Project, nonetheless had to admit that SDI was decades, billions, and serendipitous fortuity away from reality.

U.S. Intentions?

As earlier noted, the Reagan claimed that the SDI was a benign project, and as part of this claim he offered to share the technology with the Soviets. At an interview prior to the Geneva arms control summit conference, Reagan told a group of Soviet journalists, "If such a weapon is possible, and our research reveals that, then our move would be to say to all the world, 'here, it is available.'...And we make that offer now. It will be available for the Soviet Union, as well as ourselves."²⁶ This was quite a proposal. President Reagan spoke of SDI as if it were some miracle medical panacea of sorts, like the Cure for Cancer. This statement, however, seemed less genuinely naïve than disingenuous and deceptive to the Soviet government, at least. It did not sound plausible that the US would simply give its most advanced technology to its arch-nemesis.

²⁶ President Reagan, interview with Soviet journalists, October 31, 1985

This is so if only because the US did not even share its advanced technology with its closest allies. Certainly, the Soviets were not convinced that the US would just hand over SDI. American scientists and policy makers were among those uncomfortable with the US turning over its hard-earned technology to the Soviets. A 1985 study by the Office of Technology Assessment notes: "If BMD plans or devices are transferred, potential adversaries might be able to study them to discover vulnerabilities, enabling them to circumvent or destroy our own such components...Furthermore, many BMD-relevant technologies have applications in other military areas that we may not want to help the Soviets develop."²⁷

Nonetheless, not only did President Reagan express the desire to share SDI information with the Soviets as a way of ensuring his peaceful intentions about the project. Top advisor Paul Nitze also argued for a "cooperative" shift to a defensive-dominated world. In a speech that was a trailblazer in the creation of a coherent rationale for SDI, Nitze commented:

What we have in mind is a jointly managed transition, one in which the US and the Soviet Union would together phase in new defenses in a controlled manner while continuing to reduce offensive nuclear arms. We recognize that the transition period...could be tricky. We would have to avoid a mix of offensive and defensive systems that, in a crisis, would give one side or the other incentives to strike first. That is exactly why we would seek to make the transition a cooperative endeavor with the Soviets.²⁸

Nitze's notion of a cooperative relationship also seems disingenuous. Why would the U.S. have any reason to trust the Soviets or expect them to participate in this

²⁷ Office of Technology Assessment, *Ballistic Missile Defense Technologies*, September 1985

²⁸ Paul Nitze, address to the North Atlantic Assembly, October 15 1985

grand Western scheme of a strictly defensive, versus offensive-dominated, world? Just about everything that the Reagan administration had said up to this point (mid 1980s) would indicate that it believed the opposite: that the "evil empire" would do everything in its power not to cooperate with the United States. A more realistic assessment of SDI's impact on U.S.- Soviet relations than that offered by Nitze is that SDI would trigger the following circumstances.

- ~ the Soviet Union would assume that the U.S. had no intention of cooperating in the development and implementation of SDI;
- ~ the Soviets would resist or negatively respond to any effort to overturn offensive-dominated deterrence;
- ~ the Soviets would attempt to develop and obtain SDI technology, both overtly and clandestinely, and to subvert U.S. efforts to develop a workable system; also
- ~ the Soviets would exploit any changes or instabilities in the strategic balance created by SDI.²⁹

The United States, both inside and outside the Reagan Administration, vigorously debated the implementation and military ramifications of SDI. The following is a hypothetical exchange, but it is not fictional in the sense that it reflected actual positions taken by proponents and opponents of SDI in regards to its deterrence capabilities and possibilities:

Proponents: SDI would vastly complicate the planning of an attacker (owing to the aggressor's uncertainty as to where and how many of his weapons penetrated the shield)

²⁹ From Eds. Steven W. Guerrier and Wayne C. Thompson, *Perspectives on Strategic Defense*, pg 87 Westview Press 1987

and it would nullify the effectiveness of a planned attack. Available defenses can certainly be used to deny an attacker his objectives, while retaliatory offensive forces (if they themselves are not destroyed in the initial attack) can only be used punitively. Thus defensive capabilities constitute a more credible form of deterrence than do offensive capabilities.

Opponents: The acquisition of new defensive measures by an established enemy will not appear as a sign of that power's willingness to transform the nature of MAD from offensive to defensive in nature; rather, that new defensive capability will be interpreted by the opponent as preparation for an attack. Furthermore, the threat of a first strike by a particular power is greatly magnified during the transition period of moving from offensive to defensive deterrence owing to the futility of ballistic missiles that a successful BMD insures.

Proponents: The defensive transition can be managed cooperatively and is not incompatible with simultaneous negotiations regarding reduced offensive capabilities. Furthermore, the point of SDI is to shift nations to a more sound and stable form of war prevention; it is not meant to deal with the immediate contingencies of its implementation or the likelihood of the failure of the present system.

Opponents: The notion of a negotiated transition is ludicrous. The current state of arms control is not based on trust but rather on something that can be best characterized as a recognition of common interests. The degree of trust and cooperation required to

manage the joint introduction of defenses is much greater than that needed for offensive arms control only. And if such trust and cooperation were in fact possible, then there really would be no need in the first place for one power to arm itself at such great expense against another power.

SDI: Whose Bomb is Bigger? An Issue of International Prestige.

The Communist Party

The Communist Party was yet another subgroup of the Soviet Union, but is indeed the most important. Whereas the military and scientific communities are important, yet compartmentalized entities, the Communist Party had an all-encompassing influence on SDI. Its objection to SDI centered on two main points: first, that the success of the SDI would deal a death blow to the Communist Party's international prestige; and second, that the Soviets' development of their own BMD, which would be necessary for reasons of prestige, would prove financially untenable.

As was so often the case with regards to Cold War problems, SDI battles were exacerbated by the differences in perspective between the two superpowers. U.S. policy-makers evaluated SDI in accordance with such military criteria as deterrence and defense, and they did not attach broad significance to the SDI effort. But their Soviet counterparts viewed the matter entirely different. By considering SDI solely within

narrow military contexts, the U.S. neglected a number of important potential ramifications.³⁰

After all, it was a vastly different cultural and historical experience, compounded by a fundamentally different political structure, that shaped the Soviet response to SDI. A main basis of the Communist Party's presumption of legitimacy was its claim of a superior socio-political economic status, reflective of the dialectical nationalism of Marxist-Leninist ideology.³¹ By developing SDI, or even only some of its components, the capitalist economy of the United States would implicitly challenge the authority of current Party leadership. This was a critical reason for the Soviet Union's opposition to SDI. In response to the U.S. development of SDI, the Communist Party would be faced with one of two equally unpalatable situations. Either the Party would have to admit that the socialistic system was inferior to the capitalistic one in terms of generating high tech technology. Or if it continued to insist on the superiority of socialism, then the Party would have to implicate itself for treasonous failure to uphold its historical objective. Both scenarios were obviously unacceptable to Party leadership.

But considerations of international prestige weren't confined to the Soviet Union, far from it. In the early 1980s, the United States was still reeling from a series of global humiliations it had suffered during the 1970s (Watergate, Vietnam, Iran, Afghanistan) and it had recently ushered in Ronald Reagan into office on a promise to reestablish global hegemony. Reagan had not backed down in confronting the Soviets with INF and he appeared to be asserting himself once again on the issue of SDI.

³⁰ Colin S. Gray, *Nuclear Strategy and Strategic Planning*, Foreign Policy Research Institute, 1984 pg. 23

³¹ Dmitry Mikheyev, "The Soviet Perspective on the Strategic Defense Initiative" Institute for Foreign Policy Analysis, Inc. pg. ix

The push for SDI can thus be viewed as a catalyst in exposing major contradictions that beset the Soviet regime. The Party undoubtedly knew that the overwhelming show of economic and scientific prowess that SDI signified would decimate the Soviet's dubious claims to parity with the West. What, then, could the Party do to combat the conundrum threatening to expose the birthday-suit clad Emperors of the Soviet Union? In order to remain economically, technologically, and even politically competitive, the Party would have to institute incentives to make its economy more efficient. It would have to increase Soviet productivity and improve the quality and international competitiveness of Soviet products. Yet to adopt such measures would be tantamount to challenging the ideological credibility of the communist regime directly, and this would render untenable the Party's claim of socialism's superiority. In short, SDI placed the following problem before Moscow: to survive, it must compete; to compete, it must reform; yet to reform is to admit the bankruptcy of the communist regime, and to make clear the folly of totalitarian control.

Unwilling to reform at the time, the Soviets were left with addressing the problem of SDI using their old standby weapons: military threat and, alternatively, diplomatic bullying. But the Soviets knew that a military response, by any branch of their services, would be an exorbitant drain on the already faltering economy. It would be far better, they correctly reasoned, to deal with the problem diplomatically rather than militarily. The Soviets were fighting SDI like caged animals in order to retain their unspoken and dubious "Superpower" status. If the Soviets failed to keep pace in ballistic defense they would be exposed as the second-rate power that they actually were. Diplomatically, the Party had two strategic options to pursue. One Soviet option

would be to attempt to mobilize political pressures within the West against SDI by conducting an intense propaganda campaign against it, stoking international fears of SDI and its theoretical concomitant risk of thermo-nuclear war.

Advocates of this option within the Kremlin stated that the Soviet Union need not panic and rush to trade away the strategic gains of the Brezhnev era. They argued that there was still time to meet the challenge of SDI since deployment was, even by the most optimistic U.S. accounts, over a decade away. Essentially, this option would replicate the technique used by Moscow in its unsuccessful attempt to block INF deployment in 1983.

The second option available to the Soviet Union would involve a very different policy. Instead of purposely heightening tensions, the Soviet might attempt to engage in straightforward business-like negotiations with the U.S. in an attempt to cut a deal, one in which the Soviets would agree to major cuts in their own offensive rocket force in exchange for U.S. agreement to freeze SDI development.

Whereas the first policy option involved Soviet mobilization of pressure against the U.S. Administration in an attempt to constrain and prevent its pursuit of SDI, the second involved a policy of Soviet cooperation with Washington in an effort to negotiate a new arms control era, one encompassing both SDI and offensive weapons.

As the 1980s progressed the Soviet Union employed both options in chronological order. Under the helm of Andropov and Chernyenko the Soviet Union tried the former. Under the Mikhail Gorbachev, it tried the latter. But the Soviet Union would see the same result from both approaches: abject failure.

The Pursuit of SDI:

Money that the Soviets didn't have to Waste

The emphasis on both absolute and relative economic growth in the socialist bloc has always been one of the main tenets of Soviet propaganda. With every passing year, however, the Party found it increasingly difficult to maintain this myth of economic success. For some time prior to the unveiling of SDI in 1983, the Soviet bloc, both demographically and economically, had ceased to expand. The U.S. economy, despite the cyclical swings characteristic of a free market system, had continued to grow. The problem was, as Zbigniew Brzezinski has written: "In 1950, the Soviet GNP accounted for about 11 percent of the world economy; three decades later it still constitutes 11 percent."³²

In the three decades following World War II, the Soviet Union appeared to be rapidly closing the gap with the United States in economic strength and technological development. Unprecedented Soviet successes in the fields of space and military hardware, coupled with the high rate of Soviet economic growth, led Soviet leaders and even some Western scholars to believe that the Communist system would eventually catch and then surpass that of the United States. But the blinding Soviet military and aeronautic achievement facade—which often involved less sophisticated technology than did its Western equivalents—belied an underlying weakness in the Soviet economic and political structure, one that actually inhibited the development and dissemination of advanced technology.

As these structural weaknesses became increasingly apparent by the early 1980s, the United States was entering the initial stages of a new technological revolution that would eventually transform Western society. The revolution was led by the widespread application of digital technology to the production process, finished goods, information processing and communications.³³ Another important and often overlooked factor is the strong symbiotic relationship in the United States between the civilian and military sectors of the economy; which allows for the rapid application of new technologies developed in one branch of the economy to the other branch. In contrast, the Soviet Union lacked such a productive symbiotic relationship. The Soviet Union's obsessive secrecy and the low priority it accorded the development of civilian products relative to that of military hardware led to a strong separation of the civilian and military sectors of the economy.

As Martin Malia points out in his *Mr. Z* essay, "in the 1930s the Soviets had built a crude, but serviceable imitation of a Pittsburg-Detroit or a Rhur-Lorraine economy...they multiplied the same model seven or eight times over when genuinely advanced countries were phasing out their Garys, Birgminghams, and Essens. At the same time, the West and East Asia passed them by them by, first with an electronic, and then with a computer, revolution." Soviet success with its command economy was thus a time-sensitive issue, with notable success limited to the early to mid-level development periods of industrialization. Vast numbers of workers could be called upon as slave laborers to build workable dams and steel mills, but no amount of coercion could make them turn out the computer on which I am typing, the construction

³² Zbigniew Brzezinski, *Game Plan*, The Atlantic Monthly Press, 1986 p. 124

³³ Glasser, Bonnie S., *The Strategic Defense Initiative*, Kyugnam Press, 1987 pg. 99

of which requires a quality sensitive and intensive workforce. Similarly, natural resources once seemingly inexhaustible were abused with such wanton disregard that they, too, dried up, leaving behind a scarred landscape. GNP growth that had clipped along at high rates in the first and middle parts of the century ground down to zero by the 1980s.

Thus, with its economy in near ruins and relief nowhere in sight, the Communist Party undoubtedly feared the fiscal challenge posed by SDI as a potentially bankrupting measure for the Soviet Union. Yet to admit this would make it increasingly difficult for the Party to maintain that, "The wave of history is on our side." One angry Soviet official told an American correspondent:

He [President Reagan] is trying to tell us that the Soviet Union cannot be a superpower. He is trying to beat us down, to damage us politically and economically, after we have worked so hard to establish equality. We can't let him get away with that, and we won't.³⁴

In essence, the Communist party viewed SDI as an attempt to turn the clock back to the 1950s and to relegate Moscow once again to a clear cut position of inferiority with respects to world affair. Thus for Party leadership, the potential political implications of SDI were much more menacing than its potential military ramifications.

³⁴ Robert. G. Kaiser quoting an unidentified senior Soviet official in "Powerful but Isolated, Russia is on Defensive," *Manchester Guardian Weekly*, October 21, 1984, cited in Ross, *Coping with "Star Wars"* pg. 37

Mikhail Gorbachev & Ronald Reagan:

The Power Players of SDI

The ferment that Mikhail Gorbachev caused by his initially prudent, and then increasingly radical changes in the Soviet Union cannot be understated. Coming to power in 1985 after the death of Konstantin Chernyenko, Gorbachev moved more quickly than any of his predecessors to bring new blood into the highest echelons of the Kremlin's foreign policymaking circles.³⁵ After twenty-eight years as Foreign Minister, Andrei Gromyko was unexpectedly kicked upstairs to the ceremonial position of Head of State. Gromyko's replacement was Eduard Shevardnadze who had no previous association with Soviet foreign policy and thus no personal stake in continuing it unchanged. Realizing the need for greater expertise about the West, Gorbachev brought two foreign policy experts into the all-important Secretariat. Anatoly Dobrynin, the long-time Soviet Ambassador to the United States, replaced the veteran Boris Ponomarev as head of the International Department. And Aleksandr Yakovlev, who served for a decade as the Soviet Ambassador to Canada, became an important advisor to the Head of the Department of Propaganda. Never before had two officials with such long term experience living in the West served at the same time within the Secretariat.³⁶

³⁵ Archie Brown, "Change in the Soviet Union," *Foreign Affairs*, Vol. 64, No 5 pg. 1049-1053

³⁶ Paul Marantz, *The Strategic Defense Initiative: Its Implications for Asia and the Pacific*, Kyungham University Press, 1987 pg. 52

Gorbachev seemed ready to depart from the hard line approach that the Soviet Union had taken with the United States in the past. The following quotation exemplifies this new thinking:

The situation has reached a turning point not just in domestic affairs. This is also characteristic of foreign affairs. Changes in present-day world development are so profound and significant that they require the reinterpretation and comprehensive analysis of all its factors.; The situation of nuclear confrontation makes necessary new approaches, methods and forms of relationships among different social systems, states, and regions.³⁷

Gorbachev was not merely spouting rhetoric. Opening a dramatic anti-SDI offensive in November of 1985, he came forward with the proposal that should the United States to cease pursuing the actualization of SDI, then the Soviets would agree to the "most radical" of arms reductions proposals. However, Ronald Reagan remained intransigent. He showed here, and henceforth, the most ardent ideological unwillingness to bargain away his pet project. Liberal critics of Reagan were soon silenced in their accusations that he was merely using SDI as a trump card in arms control negotiations.

As the historic Reykjavik arms summit approached, Gorbachaeu stepped up his pressure on Reagan to do away with SDI. He formalized into a proposition his earlier hints at "most radical" arms cuts. In an exchange for a strict US-Soviet adherence to the ABM Treaty for another 10 years, Gorbachaeu offered to reduce Soviet nuclear weapons, including the military's most threatening land-based missiles SS-18 and SS-19, by 50%.

³⁷ *Pravda*, Feb 26, 1986 (translation)

But even with this huge carrot dangling in front of him, Ronald Reagan was unwilling to give up on his brainchild, and he rejected what was to many American liberals a more than generous and fair offer from Gorbachaeu. "I told him," stated Reagan in his address to the nation following the summit. "I had pledged to the American people that I would not trade away SDI—there was no way I could tell our people their government would not protect them against nuclear destruction. I went to Reykjavik determined that everything was negotiable except two things: our freedom and our future."³⁸

Platitudinous rhetoric aside, Ronald Reagan genuinely believed both in the immorality of nuclear weapons and in the notion of holding millions of civilians in nuclear hostage. It is not hard to find the ideological source for his misgivings. Nuclear warfare egregiously violates the time-honored notion of "just war" because it ignores the moral requirement that one should punish only the guilty and use only as much force as necessary. After all, the notion of deterrence, in this connection, cannot resolve two major philosophical or moral dilemmas.

- (1) Why is it politically or morally acceptable for one power to threaten the annihilation of its opponent rather than confining itself to the active defense of its own citizens?

³⁸ Televised address to the nation, October 13th, 1986, Ronald Reagan Library

(2) If one power only has offensive weapons, how does it protect its citizens if “deterrence” fails and it finds itself the subject of nuclear attack!?³⁹

Not only does MAD suffer from suspect morality; its rationality is equally dubious. Does it make logical sense for the US to base its security on the rational and good intentions of an enemy, as MAD purports to do? Furthermore, MAD requires that it work 24 hours a day, seven days a week, and forever.

Reagan was also critical of Gorbachev’s recent dove-like overtures, including his efforts to de-couple INF from SDI and the 50% proposed cut. Reagan was convinced that the road to a nuclear free world led through SDI.

I realize that some Americans may be asking tonight: Why not accept Mr. Gorbachev’s demand? Why not give up SDI for this agreement? Well, the answer, my friends, is simple. SDI is America’s insurance policy that the Soviet Union would keep the commitments made at Reykjavik. SDI is America’s security guarantee—if the Soviets should—as they have done so often in the past—fail to comply with their solemn commitments. SDI is what brought the Soviets back to arms control talks at Geneva and Iceland. SDI is the key to a world without nuclear weapons.⁴⁰

Ronald Reagan’s viewpoint was clear. He remained distrustful of the Soviet Union, and this distrust extended to Mikhail Gorbachev as well. At this point Reagan realized just how much power that he held over the Soviet Union in the form of SDI. And it proved to be a position of bargaining strength that he would never relinquish.

³⁹ Overviewed in R. Hardin, J. Mearsheimer, G. Dworkin, and R. Goodin, eds., *Nuclear Deterrence – Ethics and Strategy*, University of Chicago Press, 1985 pgs. 88-99

⁴⁰ Ronald Reagan’s televised address to the nation, October 13th 1986 Ronald Reagan Library

General Secretary Mikhail Gorbachev also spoke publicly in the aftermath of the failed summit. His views were similar to the general Party line: the SDI was a pie in the sky idea that would never become operational. "But, in any case, we are not scared by SDI. I say this with confidence, since it is irresponsible to bluff in such matters."⁴¹ Yet Gorbachev shared with the scientists and military of his nation, grave reservations about SDI, which he succinctly outlined:

But what is its danger? For one thing, there is a political danger. A situation is created right away that brings uncertainty and stirs up mistrust and suspicion of each other. Second, there is a military aspect after all. The SDI can lead to new types of weapons. We also can say this with competence. It can lead to an entirely new stage of the arms race with serious, unpredictable consequences.⁴²

Ronald Reagan always maintained that SDI was to be a strictly defensive weapon and that his motivation for creating it was to empower America with an active defense (i.e. SDI) by which it could rely on itself for protection. This was preferable to a passive defense (i.e. MAD) that relied on the good graces of the Soviet Union. But one must wonder whether Ronald Reagan was in fact pushing ahead with SDI for the primary purpose of weakening the Soviet Union both fiscally and in terms of international standing, even if this required the creation of an expensive "prestige" weapon of dubious military usefulness. Historians now offer two principal interpretations of Reagan's motives in initiating SDI.

⁴¹ Gorbachev's October 12th press conference in Reykjavik, Iceland. Transcripts released by the Information Department of the Soviet Embassy, Washington, D.C.

The Benign and Altruistic Reagan

- *That Ronald Reagan and Co. were actually acting in the world's best interest in trying to build a weapons system that would be capable of rendering nuclear weapons obsolete.
- *That the Reagan administration honestly intended to share the technology with the Soviets
- *That the technology gained in the development of SDI would be used solely for defensive purposes.

The Militant Hawkish Reagan

- *That the Reagan Administration sought to significantly reduce the expansionism of the Soviet empire by reducing its internal capacity to sustain further external ventures.
- *That it sought to decrease the economic and political control exercised by Moscow over nations in the socialist orbit, particularly those in the Western Hemisphere, by mounting a crippling blow to Soviet prestige
- *That by presenting the Soviet leaders with an inevitable and distasteful choice—either falling behind technologically or radically restructuring their political system—the U.S. aimed through SDI to destroy the Soviet Union!

This scholarly debate as to American motives is both interesting and significant, yet it can never be conclusively resolved. Both interpretations can draw on incontrovertible evidence. Certainly Ronald Reagan seemed sincere when he stated repeatedly that SDI was intended neither to stoke the fire of the arms race nor increase

⁴² Ibid

the United States' ever-illusive "first strike" ability. But, then again, Reagan also seemed equally sincere in *Bedtime for Bonzo*.

Conclusion

In 1959 British author/scientist C.P. Snow wrote *The Cultures and the Scientific Revolution*, in which he argued that it unless they were dismantled immediately, it was mathematically certain that at least some of the nuclear bombs which then existed in the world's arsenals would be used within twenty years. More than forty years have passed. Not one of those bombs has gone off, although there are ten times as many in stock now as there were then. No matter how frightening MAD may be, it has worked. Despite guerilla wars, revolutions, local uprisings, a constant simmering of "little" wars in the Middle East, Southeast Asia, Afghanistan, and Central America, and crises ranging from the Berlin Blockade of 1948 to the downing of Korean Air Lines flight 007, the invasion of Grenada in 1983, and most recently the downing of our spy plane over China, there has been no nuclear war.

Perhaps doughty old Winston Churchill said it best in the House of Commons in 1955: "It may well be that we shall, by a process of supreme irony, have reached a stage in this story where safety will be the sturdy child of terror, and survival the twin brother of annihilation. It may well be. The notion of Mutually Assured Destruction probably kept U.S. and Soviet citizens from facing the terror and destruction of a nuclear attack for the final thirty-some-odd years of the Cold War. Nonetheless, the

risks of nuclear war are still prevalent and horrifying. If there is any way to avert them, it would be true madness not to pursue that course.

That is why I ultimately believe that unless the world community can agree to disarm each and every one of its nuclear weapons, and somehow ensure that they will never be built again, defensive measurements are ultimately a wise decision for the United States. Although "Star Wars" might have not have been a good idea for reasons stated in the paper: A loss of international prestige for the Soviet Union, the expense that matching SDI would cause the Soviets, and Soviet concerns about the militarization of space and related technological spin-off technology that SDI proposed; All of these factors combined would have greatly increased the chance for the Soviet Union to initiate a nuclear attack against the United States.

But, with the fall of the Soviet Union in the early 1990s, the United States lacks a monolithic enemy with the nuclear capabilities of its old nemesis. Instead, the US faces a new, and in my opinion, more dangerous problem: Rogue States. In this era of nuclear proliferation it is "Rogue States" such as Libya, Iraq, North Korea possessing a but a handful of antiquated, yet still lethal, nuclear weapons that pose the most imminent threat to the United States. For all of the faults that that the United States leaders felt that the Soviet leaders had, they knew that they were rational, logical, and sane people. Once nuclear parity was reached leaders of the Communist Party even backtracked on one of the foundational tenets of their governing ideology to acknowledge that nuclear war was a atrocious travesty with no winners, only decimated losers. Unfortunately in today's world, U.S. leaders face a number of "rogue" leaders whose political and/or religious fanaticism and dogmatism lead them to operate on a

decision making process that is alien to the West. Is it really so unlikely that someone like Osama Bin Laden would not purchase an old ICBM in a fireside sale from a new Soviet Republic, assemble it high in the mountains surrounding Kabul, and then with a bombast of semantic sound and fury launch it without warning at New York City? It is frightening, yet all to likely possibility. That is why the United States should jump on this interim period of having no major nuclear enemies in establishing, to the best of its ability, a functioning and active missile defense.

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