

THEY CALLED IT STAR WARS

The critics sneered at it, but the Soviets weren't so sure.

By John T. Correll

Staff illustration by Zaur Eylanbekov

President Ronald Reagan surprised friend and foe alike with what came to be known as the “Star Wars speech” on March 23, 1983. It was a short insert added to the end of an otherwise routine presidential address on the defense program.

“What if free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our soil or that of our allies?” Reagan asked.

He called on the nation’s scientists “to give us the means of rendering these nuclear weapons impotent and obsolete” and announced a long-term research and development program with the “ultimate goal of eliminating the threat posed by strategic nuclear missiles,” a formidable task “that may not be accomplished before the end of this century.”

The next day, Sen. Edward M. Kennedy (D-Mass.) called it “misleading Red Scare tactics and reckless ‘Star Wars’ schemes.”

The “Star Wars” label stuck, even after the program was named the Strategic Defense Initiative.

SDI was developed through political channels with minimal input from the Department of Defense. Most scientists and technocrats, in and out of government, regarded it as far-fetched. Ridicule from the academic community and the news media set the tone for the clash that followed.

Thirty years later, it is difficult to separate the history of SDI from partisan interpretation, which accounts for much of what has been written about it. Reagan’s enemies portray him as a simpleton and SDI as a fantasy. Reagan’s admirers hold SDI to have been a masterstroke, pivotal in ending the Cold War.

SDI concurrently challenged two mainstays of Cold War strategy—mutual deterrence and arms control—both of which sought to contain and manage the nuclear standoff but did not offer any hope of eliminating it.

Loss of Faith

SDI is usually depicted as a bolt out of the blue, but it did not begin from scratch. The Pentagon had been engaged in ballistic missile defense since the 1950s. Among the successes was an Army Nike-Zeus rocket that intercepted a warhead launched by a Titan missile. The Sentinel anti-ballistic missile system to protect US cities was canceled in 1969 in favor of the Safeguard ABM designed to defend US Minuteman missile silos.

By then, the scientific community and most of DOD had lost faith in ABM solutions because of the technical difficulties and potential destabilization of the arms race. In 1965, Secretary of Defense Robert S. McNamara embraced the strategy of MAD, or Mutual Assured Destruction, which was a bargain basement version of deterrence.

The US retreated from the previous goal of strategic superiority and instead sought nuclear parity with the Soviet Union. This was to be achieved through policies of détente and arms control. The SALT I agreement froze strategic ballistic missile numbers at existing levels and the ABM treaty—negotiated as part of SALT—limited each side to two fixed ground-based defense sites. Arms control treaties did not slow, much less stop, the Soviets, who swept past parity to superiority in ICBMs.

According to oft-told tales, Reagan got his idea for SDI from an Alfred Hitchcock movie, “Torn Curtain,” or perhaps from a visit in 1979 to North American Air Defense Command at Cheyenne Mountain AFS, Colo., where he supposedly learned for the first time that the US had no defense against ballistic missiles.

In fact, Reagan had been interested in ballistic missile defense since the 1960s. When he was governor of California, he received an ABM orientation at Lawrence Livermore National Laboratory near San Francisco at the invitation of physicist Edward Teller, father of the hydrogen bomb and a strong ABM advocate. Caspar W. Weinberger, who was with him in California, said that back then Reagan spoke regularly “about how a defensive system could indeed inhibit,

and ultimately operate to prevent, further development of more nuclear weapons.” Reagan assailed MAD during the 1976 presidential election campaign and again in a speech to the Republican National Convention.

Reagan did not understand the science of missile defense and the quality of the advice he was getting was spotty—but he was not a newcomer to the issue, nor was he as clueless as his detractors claimed.

High Frontier

SDI broke sharply from old-style missile defense in which incoming warheads were shot down by rockets from the ground. By the 1980s, ABM advocates were pushing various space-based solutions. The most exotic proposal was Teller’s vision of an X-Ray laser powered by the explosion of a nuclear device in space.

The leading prophet of the new approach was retired Army Lt. Gen. Daniel O. Graham, former director of the Defense Intelligence Agency, who called for battle stations in space, launching kinetic weapons that would destroy their targets by collision. In 1981, Graham and industrialist Karl R. Bendetsen set up an organization called the High Frontier Panel that subsequently moved under the institutional umbrella of the conserva-

tive Heritage Foundation. High Frontier conceived of 432 satellites or orbiting “space trucks,” each with 50 miniature homing devices to intercept ballistic missiles in the post-boost phase. Teller joined forces with High Frontier, even though his ideas differed from Graham’s.

Pentagon analysts did not think much of High Frontier’s agenda, declaring the underlying technology to be “one view graph deep” and “unencumbered by practical engineering considerations or the laws of physics.” There was also apprehension that the proposal might weaken support for such strategic force modernization programs as the Air Force’s Peacekeeper ICBM and the Navy’s Trident SLBM.

However, High Frontier had access to the White House through some of its politically prominent members. At the invitation of Edwin Meese III, counselor to the President, and George A. Keyworth II, White House science advisor and a protégé of Teller’s, High Frontier made two presentations to Reagan.

In March 1982, Graham laid out his thoughts in “High Frontier: A New

President Ronald Reagan addresses the nation from the Oval Office on March 23, 1983. The SDI portion of his speech, added at the last minute, provoked strong reactions from the press, foreign leaders, the scientific community, and the nation.



White House photo



ITAF-TASS photo

President Reagan meets Soviet Premier Mikhail Gorbachev in Reykjavik, Iceland, in 1986. The two leaders very nearly agreed to eliminate all strategic ballistic missiles by 1997—the thought of which left US defense strategists aghast.

National Strategy,” published by the Heritage Foundation. “I think it is the propitious time for the Administration to cut across the parade ground and get in front of the parade we are creating,” he said.

By then, fissures had developed among partners of High Frontier, but it did not matter. Reagan had taken possession of the concept. Keyworth set up a special panel of the White House Science Council to evaluate the possibilities. Its recommendations were lukewarm and Reagan added them to the rest of the advice.

Few senior administration officials knew about the new strategy until just before Reagan delivered the “Star Wars” speech on national television. He had, however, discussed the general idea with Secretary of Defense Weinberger and the Joint Chiefs of Staff.

Reagan’s SDI

The speech insert was drafted by Robert C. McFarlane, the deputy national security advisor, with science advisor Keyworth looking over his shoulder. Reagan reworked the draft in his own handwriting. Secretary of State George P. Shultz and a few others managed to tone it down, but not by much.

For a while, the program was called “Defense Against Ballistic Missiles” before it was named “the Strategic Defense Initiative” in a presidential directive in January 1984.

Reagan never explained his vision of SDI in any detail, and he described it in different ways at different times. In his memoirs, he said, “I never viewed SDI as an impenetrable shield.” However, he told visitors to the White House in 1985 that SDI “may soon be able to protect our nation and our allies from ballistic missiles, just as a roof protects us from the rain.”

He frequently returned to his original theme, declaring that SDI would render nuclear weapons obsolete and form “a shield that could prevent nuclear weapons from reaching their targets.”

Sometimes he said emphatically SDI was not an add-on to traditional strategy. “We’re not discussing a concept just to enhance deterrence,” he said. The goal was not disrupting a Soviet first strike on US missile fields. “Our research is aimed at finding a way of protecting people, not missiles,” he said. On the other hand, he also said that SDI would free us from “exclusive reliance” on conventional deterrence and he once called it “an insurance policy that the Soviets will live up to arms reduction agreements.”

Within the Cabinet, Weinberger was the most enthusiastic cheerleader for SDI and Shultz the most frequent critic. Weinberger, Shultz said, “continued to urge the President to take steps beyond what was remotely feasible on SDI” and that “Weinberger’s zeal for SDI, which far surpassed our present ability

to deploy, had needlessly stirred up a potentially devastating resistance to the entire SDI program.”

SDI moved into a new phase with creation of the Strategic Defense Initiative Organization in the Pentagon in April 1984. Air Force Lt. Gen. James A. Abrahamson, the director, reported to the undersecretary of defense. Thereafter, the main spokesman for SDI was Abrahamson, not Reagan.

Abrahamson rounded off the sharp edges of SDI, which began to sound less and less like the original version. SDI would be in addition to—not instead of—deterrence, which remained the “fundamental policy.”

SDI would not be leakproof, an “Astrodome over the United States.” It would begin as a technical feasibility study with hopes of reaching full-scale engineering in the 1990s and deployment around 2000.

At first, directed energy weapons—lasers, or particle beam devices—looked more promising than kinetic weapons, but that changed as the study progressed. Kinetic energy projectiles, which did their damage by impact, emerged as the weapons of choice.

The first of these to come to prominence was “Smart Rocks,” small rockets housed in orbiting satellite “garages” that could detect a missile launch and calculate a collision trajectory. It was superseded by “Brilliant Pebbles,” in which the projectiles were smarter and smaller. The Pebbles did not need a garage to do their thinking for them.

“Under this program, a large number of very small satellites would be placed in space—perhaps several thousand in all,” Weinberger said. “Each of those satellites would hold one small interceptor, probably weighing no more than 20 pounds. On alert, the satellites would open their heat-seeking eyes, locate enemy satellites from thousands of miles away, fire their own rocket motors, and crash into their ballistic missile targets.”

SDI’s reliance on space-borne systems did not set well with the Army, which had been the leader when ballistic missile defense was a ground-based mission. Now the Air Force was moving to the forefront.

Reykjavik

The Russians were also disturbed. “The Soviets were particularly vehement about space-based defenses,” Weinberger said. “They at least hinted that they would let us deploy ground-

based defenses if we agreed to ban all weapons from space.”

Soviet leaders took SDI seriously and worried about it. Yuri Andropov called it a plot to disarm the Soviet Union. Politburo meeting minutes surfacing years later revealed that Mikhail Gorbachev was obsessed with SDI.

Because of his “Rearm America” program, amplified by SDI, Reagan went to the October 1986 summit conference at Reykjavik, Iceland, in an enhanced bargaining position.

To the amazement of onlookers, Reagan and Gorbachev came close to agreeing to eliminate all strategic ballistic missiles by 1996. The deal fell through only because Reagan refused to meet Gorbachev’s demand to confine SDI “to the laboratory.”

Defense strategists were aghast. “In Western strategy the nuclear deterrent remains the ultimate and indispensable reality,” said former Secretary of Defense James R. Schlesinger. “Yet at Reykjavik the President was prepared to negotiate it away almost heedlessly. By contrast, the Strategic Defense Initiative was treated and continues to be treated as if it were already a reality (‘the key to a world without nuclear weapons’) instead of a collection of technical experiments and distant hopes.” Schlesinger’s judgment was that “Reykjavik represented a near disaster from which we were fortunate to escape.”

Brent Scowcroft, former national security advisor, took a similar view. “We dodged a bullet,” he said. “That’s the one good thing about SDI: It kept an agreement from being made.”

Columnist Charles Krauthammer disagreed. “The Cold War was won in 1986 at Reykjavik,” he said. “It kept American missile defense alive and made Gorbachev understand that nothing would stand in its way. The United States under Reagan was prepared to press its massive technological and economic advantage over the Soviet Union to achieve strategic superiority. Failing that, the United States would simply bleed the Soviets dry in any strategic competition.”

For Gorbachev, SDI trumped all else. He left Reykjavik in a weakened position. Reagan was phenomenally lucky. The US strategic deterrent survived the summit, Reagan’s advantage in negotiating with Gorbachev increased, and public approval of SDI soared to 73 percent.

“If this project is as big a waste of time and money as some have claimed, why have the Soviets been involved

in strategic defense themselves for so long, and why are they so anxious that we stop?” Reagan asked.

In Reagan’s second term, SDI encountered fierce headwinds. Funding was cut severely as the government struggled to meet the budget ceilings directed by the Gramm-Rudman-Hollings deficit reduction act.

ABM advocates feared the bureaucracy was slow-rolling SDI with the intention of killing it off once Reagan left office. Aided by supporters in both houses of Congress, advocates called for early deployment of SDI, beginning with whatever increments of the program were technologically mature. The Senate Armed Services Committee directed the Pentagon to look at “stand alone” elements that might be ready in short term, including defense of troops and allies abroad against tactical ballistic missiles.

SDI Driving Technology

Reagan did not want SDI split up into increments. “I know there are those who are getting a bit antsy,” he said, “but to deploy systems of limited effectiveness now would deter limited funds—or divert them—and delay our main research.”

Another problem centered on Brilliant Pebbles. It was undeniably a space weapon and thus presumed to be prohibited under the ABM treaty, which would have to be reinterpreted or abrogated before the system could

proceed. The Administration argued that the treaty was ambiguous, leaving open the possibility of emerging “ABM systems based on other physical principles.”

Weinberger and other officials wanted a “broad” rather than “narrow” interpretation, claiming that the treaty exclusion would apply to kinetic SDI weapons. Congress did not agree and blocked funds for any SDI tests that violated the traditional interpretation of the treaty.

SDI had its moments. In one demonstration, a Delta rocket upper stage rushed and rammed another Delta upper stage in near-Earth orbit. The Air Force chief scientist acknowledged SDI was driving the technology for space sensors, space communications, and other areas important to the armed forces.

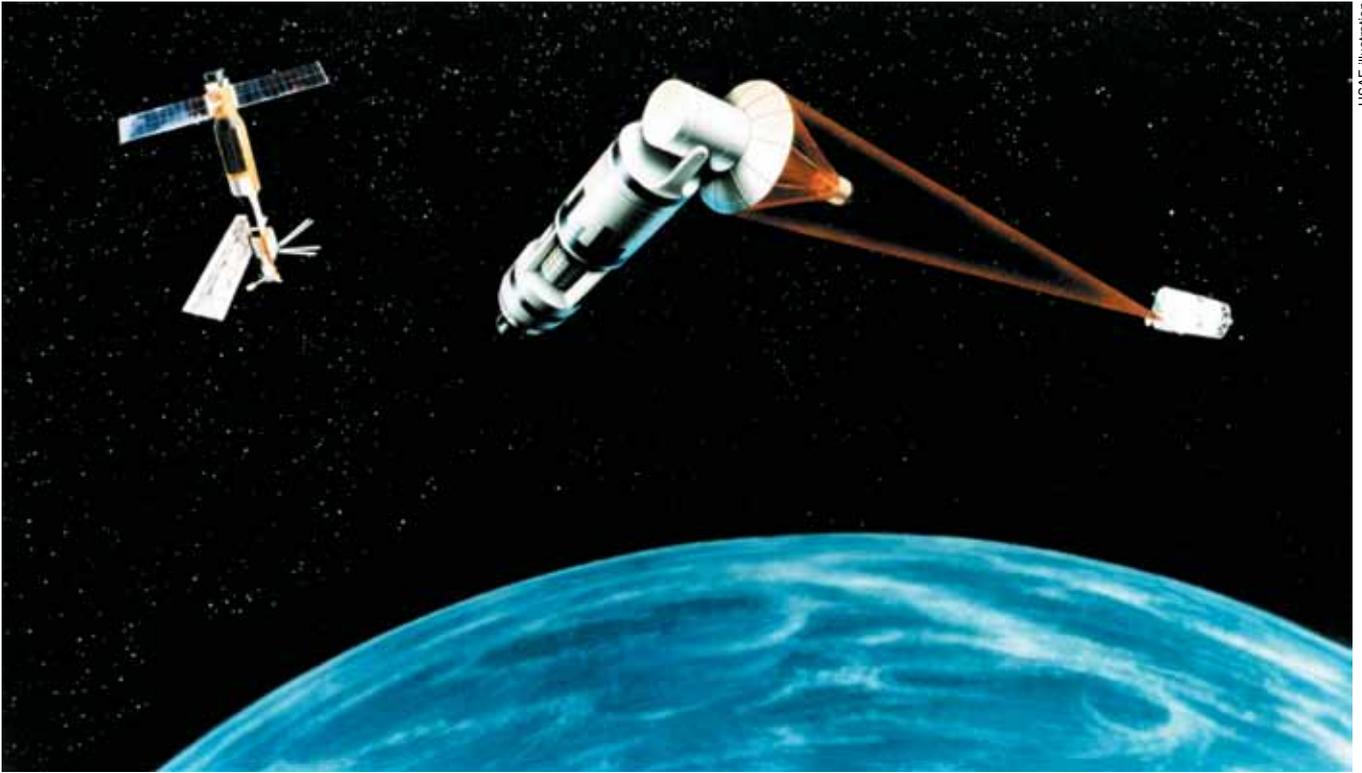
However, time was running out for SDI as originally scoped, mainly because the Cold War was ending. In his State of the Union address in 1991, President George H. W. Bush redefined SDI to include and emphasize theater missile defense. His program was dubbed “Star Wars Lite.”

The Lingering Legacy

In 1993, the Clinton Administration downgraded SDI, renamed it “Ballistic Missile Defense,” and reassigned it to a lower organizational level in the Pentagon. Brilliant Pebbles was canceled and the Administration promised to abide by the narrow interpretation of the ABM treaty.



Reagan, surrounded (from left) by Gen. Robert Herres, vice chairman of the Joint Chiefs of Staff, Vice President George Bush, and Secretary of Defense Caspar Weinberger, holds up a bumper sticker to show support for SDI during a 1987 meeting with the Joint Chiefs.



At a news conference, Secretary of Defense Les Aspin declared jubilantly that, “Today we are here to observe another point of passage, which is the end of the ‘Star Wars’ era.”

Ballistic Missile Defense made something of a comeback in the late 1990s when North Korea fired a Taepo Dong missile 1,000 miles across Japan into the Pacific Ocean and the Clinton Administration became concerned about the acquisition of missiles by rogue nations. In 1999, the National Missile Defense Act called for the defense of US territory against limited ballistic missile attack. The United States withdrew from the ABM treaty in 2002.

Today, US ballistic missile defense consists mainly of ground-based interceptor missiles in Alaska and California and the Navy’s ship-based Aegis missiles. The Obama Administration in 2009 canceled ABM defense sites in Eastern Europe and in 2012 shuffled the Air Force’s Airborne Laser off into organizational oblivion after it shot down a ballistic missile in a boost phase during a demonstration.

It’s not much, but ballistic missile defense has managed to outlast not only the USSR and the Cold War but also the ABM treaty and the Arms Control and Disarmament Agency, which was disbanded in 1999. Strategic nuclear deterrence has persisted as well, although the numbers of weapons and delivery systems have diminished considerably.

In all, the United States spent about \$30 billion on SDI. In 1993, Abrahamson and Henry F. Cooper, the last director of SDI, published an accounting for the funding. Of the total, 24.3 percent went for kinetic energy programs, 26.1 percent for sensor programs, 22.7 for directed energy programs, 16.4 percent for systems analysis, integration, and analysis, and 9.5 percent for other work. Much of this would have been spent anyway, pursuing the same technologies elsewhere in the Department of Defense, they said.

Abrahamson and Cooper noted that in January 1990, the Five Year Defense Plan was reduced by \$167 billion as a result of the ending of the Cold War. To the extent that SDI was a factor in bringing that about, the nation got a good return on its investment.

Always a Long Shot

Looking back with 30 years of hindsight, there are valid points on both sides of the issue. Reagan exaggerated the feasibility of SDI, and it is true that he did not understand the science. But his opponents skip over the fact that numerous persons with full scientific credentials believed in BMD and SDI. As for exaggeration, there were plenty of others—arms control enthusiasts, for example—who overpromised by a wide margin.

Funding and momentum for SDI slackened within three years of Rea-

An artist’s conception of a space laser satellite defense system.

gan’s speech. “I am convinced that if we could have secured adequate funding from the Congress, we would have been able to deploy the first phase of an effective defense system by 1993,” Weinberger said.

SDI was always a long shot, but Reagan acknowledged this. In the Star Wars speech, he laid out a long-range goal, presented as a hope. It might be compared to President Kennedy’s proposal in May 1961 to put a man on the moon by the end of the decade. That statement was 20 days after Alan Shepard’s suborbital flight in Freedom 7, in which the capsule reached a maximum altitude of 116 miles. Neither Kennedy nor anyone else understood the science and technology of a moon landing.

In later years, George Shultz, whose State Department had often sought to temper enthusiasm for SDI, speculated on why Reagan’s programs frequently worked out better than the critics predicted.

“Well, maybe he was a lot smarter than most people thought,” Shultz said. ■

John T. Correll was editor in chief of Air Force Magazine for 18 years and is now a contributor. His most recent article, “Air Strike at Osirak,” appeared in the April issue.