



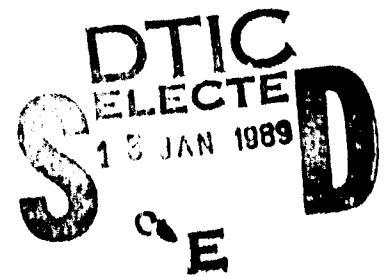
ISSUES BRIEF

U.S. ARMS CONTROL AND DISARMAMENT AGENCY, WASHINGTON, D.C. 20451

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STRATEGIC DEFENSE INITIATIVE



A CHRONOLOGY:
1983-1988



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Since President Reagan announced his commitment to explore intensively the promise of new technologies for defense against ballistic missile attack, ~~Since then~~ the Strategic Defense Initiative (SDI) has evolved into a vigorous research and development program involving a number of U.S. allies. The objective of SDI is to strengthen U.S. and allied security and enhance long-term strategic stability. SDI is an integral part of U.S. national security strategy and has important benefits for U.S. efforts to achieve real reductions in U.S. and Soviet nuclear arsenals. It also has important potential benefits, not only for ballistic missile defenses but also for spinoffs to other defense programs, and for the development of technologies with potentially far-reaching applications in the civilian sector (e.g., medicine, new materials and integrated computer analyses).

The following chronology which highlights key points in the evolution of U.S. strategic defense policy since March 1983. It describes milestones in the technology development and testing program of the SDI as well as major developments in the Defense and Space (D & S) forum of the U.S.-Soviet Nuclear and Space Talks (NST) in Geneva. It documents persistent Soviet efforts to kill the SDI program. Until recently, the Soviets have denied the very existence of Soviet strategic defense programs. While the U.S.S.R. has devoted approximately \$200 billion over the last 10 years to its strategic defense programs, U.S. expenditures in the five years of the SDI program have been less than \$11 billion.

Keywords:
International relations;
Military budgets;
Space systems history, etc)

1983

MARCH 23, 1983

In an address to the nation, President Reagan announces his intention to commit the U.S. to a research program, consistent with the 1972 Anti-Ballistic Missile (ABM) Treaty, that will study the feasibility of defensive measures against ballistic missiles to maintain the peace:

"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 the means of rendering these nuclear weapons impotent and obsolete.... I am directing a comprehensive and intensive effort to define a long-term research and development program to begin to achieve our ultimate goal of eliminating the threat posed by strategic nuclear missiles."

APRIL 22, 1983

A letter to the New York Times denouncing SDI is signed by more than 200 senior Soviet scientists, a number of whom have been instrumental in the development of Soviet advanced ballistic missile defensive systems. Yevgeniy P. Velikhov, for example, has been a central figure in the U.S.S.R.'s program to develop high-energy laser weapons.

OCTOBER 1983

The findings and recommendations of three studies ordered by the President are delivered. The Defense Technology Study, focusing on the technical feasibility of a defense, concludes that "powerful new technologies are becoming available that justify a major technology development effort offering future technical options to implement a defensive strategy." The study recommends a five-year program to determine the technical feasibility of future ballistic missile defenses and proposes \$26 billion for this effort.

X

The two Future Security Strategy Studies explore the strategy and policy implications of a strategic defense. The studies conclude that effective U.S. defense systems can offer a new, more stable and secure basis for managing our long-term relationship with the Soviet Union.

1984

JANUARY 1984

The Strategic Defense Initiative Organization (SDIO) is created to undertake a "comprehensive program to develop the key technologies associated with concepts for defense against ballistic missiles."

The SDIO charter notes that the technology plan identified by the Defensive Technology Study and the policy approach derived from the Future Security Strategy Studies will "serve as general guides" for the program.

JANUARY 23, 1984

President Reagan's first report to Congress on "Soviet Noncompliance with Arms Control Agreements" finds that:

- The large phased-array radar under construction at Krasnoyarsk constitutes a violation of legal obligations under the ABM Treaty of 1972; and
- This and other ABM-related activities suggest that the U.S.S.R. may be preparing an ABM defense of its national territory.

These findings are reaffirmed in subsequent reports sent by the President to Congress in 1985, 1986 and 1987.

FEBRUARY 1984

The first SDI budget and program are submitted to Congress.

MARCH 1984

Secretary of Defense Caspar Weinberger briefs NATO (North Atlantic Treaty Organization) Defense Ministers on the SDI at the Nuclear Planning Group Ministerial Meeting in Cesme, Turkey.

MARCH 1984

The Department of Defense booklet, "Defense Against Ballistic Missiles," makes clear that the "essential objective" of SDI is to "diminish the risk of nuclear destruction and to provide for a safer, less menacing way of preventing nuclear war in the decades to come."

APRIL 15, 1984

Lt. General James A. Abrahamson becomes the Director of the Strategic Defense Initiative Organization (SDIO).

JUNE 10, 1984

The Homing Overlay Experiment (HOE) successfully intercepts and destroys a mock ballistic missile warhead in the mid-course phase of its flight. This non-nuclear intercept is the first such experiment demonstrating the homing guidance system and the potential of kinetic energy weapons to destroy ballistic missiles and their warheads simply by colliding with them at great speeds.

HOE, managed by the U.S. Army's Ballistic Missile Defense Systems Command, represents a decade of research and development, data processing and optical technology. This experiment lays the foundation for the Exoatmospheric Reentry Vehicle Interceptor Subsystem, a technology being researched under the SDI program.

DECEMBER 22, 1984

President Reagan and British Prime Minister Margaret Thatcher agree on the following four points at their Camp David meeting:

- First, the U.S. and Western aim is not to achieve superiority but to maintain the balance, taking account of Soviet developments;
- Second, that SDI-related deployment would, in view of treaty obligations, have to be a matter for negotiations;
- Third, the overall aim is to enhance, and not to undermine, deterrence; and
- Fourth, East-West negotiations should aim to achieve security with reduced levels of offensive systems on both sides.

1985

JANUARY 1985

A White House publication, "The President's Strategic Defense Initiative," explains the meaning and objectives of the SDI program:

- The SDI is a program of intensive research into advanced defensive technologies, with the aim of

eventually eliminating the threat posed by ballistic missiles, of all ranges and armaments. The SDI is consistent with all U.S. treaty obligations, including the 1972 U.S.-Soviet ABM Treaty.

- The purposes of the SDI are to: strengthen deterrence and stability; fashion an environment that serves the security interests of the United States, its allies and the Soviet Union; and lower the level of nuclear weapons.

- Ballistic missile defenses would enhance deterrence by significantly increasing the uncertainty facing an aggressor and by reducing or eliminating the incentive for launching a first strike.

- Any effective strategic defensive system must be survivable and cost effective.

- Together with air defenses, effective defenses against ballistic missiles would substantially lower the possibility of nuclear war. They would also provide protection against the accidental launch of such weapons, or deliberate attacks by irrational leaders.

- Should it prove possible to develop a highly capable defense against ballistic missiles, the U.S. would envision parallel U.S. and Soviet deployments with the outcome being enhanced mutual security and international stability.

- Unlike the current deterrent doctrine of nuclear retaliation, greater reliance on defensive systems would threaten no one.

- There are three major reasons why it is necessary to pursue the SDI:

1. The Soviet Union's offensive and defensive buildup, which has upset the military balance in the areas of greatest importance during crises;

2. The awesome destructive potential of nuclear weapons; and

3. New technologies that may make effective non-nuclear defenses against ballistic missiles possible.

- The SDI research program is also a prudent response to the Soviet Union's activities in both traditional and advanced technologies for ballistic missile defense, including: the world's only operational ABM system; activities which violate or potentially violate the ABM Treaty, and which together suggest that the U.S.S.R. may be preparing an ABM defense of its national territory; and active research and development into advanced technologies, such as lasers and neutral particle beams, for ballistic missile defense.

- A unilateral Soviet deployment of advanced defenses against ballistic missiles, together with massive Soviet offensive forces and impressive air and passive defense capabilities, would destroy the foundation upon which deterrence has rested.

- If it proves possible to develop effective defenses against ballistic missiles, the U.S. would envision parallel U.S. and Soviet deployments, with the

outcome being enhanced mutual security and international stability.

FEBRUARY 20, 1985

In an address to the Philadelphia World Affairs Council, Special Advisor to the President Paul Nitze outlines and analyzes U.S. government criteria (survivability and cost effectiveness at the margin) for judging the feasibility of strategic defenses. (See entry for June 1985.)

MARCH 12, 1985

The United States and the Soviet Union begin the NST talks in Geneva.

In the D & S forum of these talks, the U.S. seeks to:

- Discuss the possibility of both sides making a transition from deterrence based solely on the threat of nuclear retaliation toward increased reliance on non-threatening defenses, whether ground- or space-based, against ballistic missiles;

- Reverse the erosion of the ABM Treaty, caused by Soviet violations and actions inconsistent with the letter and spirit of the agreement, and achieve the promise of the ABM Treaty by reversing the continuing buildup of Soviet offensive nuclear forces.

In the D & S forum, the Soviets seek a comprehensive ban on research, development, testing and deployment of "space-strike arms." With this objective, the Soviets attempt to kill the SDI program while retaining their own robust research and development on advanced defenses.

MARCH 18, 1985

Secretary Weinberger invites 18 allied governments to participate in the SDI program so that both SDI and Western security as a whole could be strengthened by taking advantage of allied excellence in research areas relevant to SDI.

JUNE 1985

A Department of State Special Report on the SDI, based on a key presidential policy directive, outlines major features of the program:

- The aim of SDI is not to seek superiority, but to maintain the strategic balance and thereby assure stable deterrence. The SDI represents no change in the U.S. commitment to deterring war and enhancing stability.

- The SDI is designed to enhance allied security as well as U.S. security. The U.S. will continue to work closely with its allies to ensure that, as SDI research progresses, allied views are carefully considered.

- Research will last for some years. The U.S. will adhere strictly to the ABM Treaty and insists that the Soviets do so as well.

- The purpose of the defensive options the U.S. seeks is to find a means to destroy attacking ballistic missiles before they can reach any of their potential targets.

- The U.S. has no preconceived notions about the defensive options the research may generate. The U.S. will not proceed to development and deployment unless the research indicates that defenses will meet strict criteria of military effectiveness, survivability and cost-effectiveness at the margin.

- If and when U.S. research criteria are met, and following close consultations with U.S. allies, the U.S. intends to consult and negotiate, as appropriate, with the Soviets pursuant to the terms of the ABM Treaty, on how deterrence could be enhanced through a greater reliance by both sides on new defensive systems. It is the U.S. intention and hope that, if new defensive technologies prove feasible, the U.S. (in close and continuing consultation with its allies) and the Soviets will jointly manage a transition to a more defense-reliant balance.

- For the foreseeable future, offensive nuclear forces and the prospect of nuclear retaliation will remain the key elements of deterrence. Therefore, the U.S. must maintain modern, flexible and credible strategic nuclear forces.

- America's ultimate goal is to eliminate nuclear weapons entirely. By necessity, this is a very long-term goal, which requires, as the U.S. pursues its SDI research, equally energetic efforts to diminish the threat posed by conventional arms imbalances, through both conventional force improvements and negotiation of arms reductions and confidence-building measures.

SEPTEMBER 6, 1985

A ground-based, directed energy experiment using the Mid-Infrared Advanced Chemical Laser (MIRACL) device is conducted at the White Sands Missile Range. The target, a Titan booster rigged to simulate a thrusting booster, is successfully destroyed by the laser. This is the first time in the SDI program that a laser destroys a ballistic missile's booster. It proves that liquid propellant ballistic missiles are vulnerable to attack by lasers.

SEPTEMBER 27, 1985

The SDIO conducts the first successful demonstration of the ability to track a sounding rocket in space with a low-power, ground-based laser after adjusting the beam for atmospheric distortion. Using a low-power laser, the sounding rocket is tracked by a

laser beam director at the U.S. Air Force Maui Optical Site in Hawaii. This is the first time a laser beam, adjusted for atmospheric distortion, is propagated from the ground into space.

OCTOBER 4, 1985

The Departments of State and Defense jointly issue a report, "Soviet Strategic Defense Programs," which documents the extent of Soviet activities in all aspects of strategic defense, including passive defense, air defense, and both traditional and advanced technologies for defense against ballistic missiles. The report points out that Soviet efforts in most aspects of strategic defense have long been far more extensive than those of the U.S.

OCTOBER 11, 1985

President Reagan determines the broader interpretation of the ABM Treaty to be fully justified. The President also directs that, as a matter of policy, the SDI program will continue to be conducted according to a more restrictive interpretation of the ABM Treaty than the U.S. could justifiably observe.

Under the broader interpretation of the Treaty, ABM systems that are "based on other physical principles" (i.e., other than ABM interceptor missiles, ABM launchers and ABM radars), and including components capable of substituting for ABM interceptor missiles, ABM launchers or ABM radars, may be developed and tested but not deployed, regardless of their basing mode.

Under the more restrictive interpretation, development and testing of ABM systems based on other physical principles are allowed only for fixed land-based systems and components.

OCTOBER 14, 1985

Addressing a North Atlantic Assembly meeting in San Francisco, Secretary Shultz says the SDI program "is and will continue to be consistent with the ABM Treaty."

He adds: "Because of the great potential contribution that SDI could make to our security, and because of our interest in a rigorous implementation of the ABM Treaty by both sides, we have devoted much attention to the question of how to interpret the Treaty. It is our view, based on a careful analysis of the Treaty text and negotiating record, that a broader interpretation of our authority is fully justified." This, however, Shultz says, is a moot point because the SDI research program has been structured and, as the President said, will continue to be conducted in

accordance with a restrictive interpretation of the ABM Treaty's obligations as long as the U.S. can meet the program's objectives.

NOVEMBER 1, 1985

The U.S. tables a new proposal at the D & S talks. The major points are:

- The U.S. is committed to the SDI program as permitted by, and in compliance with, the 1972 ABM Treaty.
- The U.S. seeks a Soviet commitment now to jointly explore how a cooperative transition could be accomplished should new defensive technologies prove possible.
- The U.S. proposes that the U.S.S.R. join in an "open laboratories" arrangement under which both sides would provide information on each other's strategic defense research programs and provide facilities for visiting associated research organizations and laboratories.

DECEMBER 1985

The Eastport Study Group, formed "to devise an appropriate computational/communications response to the (strategic defense battle management) problem and make recommendations for a research and technology development program to implement the response," issues its report to Gen. Abrahamson.

The report concludes that "computing resources and battle management software for strategic defense systems are within the capabilities of the hardware and software technologies that could be developed within the next several years." The report describes battle management and command, control and communications as the "paramount strategic defense problem" to be resolved. The report's conclusions agree with SDIO's assessments of the issues confronting the technology development program. SDIO formulates plans to implement the study group's recommendations.

DECEMBER 6, 1985

The U.S. and the United Kingdom sign a Memorandum of Understanding on British participation in SDI research. This is the first agreement with an ally on SDI participation, following Secretary Weinberger's invitation of March 18, 1985.

1986

JANUARY 15, 1986

Soviet General Secretary Gorbachev announces a proposal which envisages the elimination of nuclear weapons over a 15-year period. The plan restates several Soviet proposals, including the elimination of offensive nuclear weapons contingent on banning research, development and testing of space-based missile defense systems. This is a continuation of Soviet efforts to kill or cripple SDI.

FEBRUARY 26, 1986

In an address to the nation, President Reagan says that "We're pushing forward our highly promising Strategic Defense Initiative—a security shield that may one day protect us and our allies from nuclear attack, whether launched by deliberate calculation, freak accident or the isolated impulse of a madman. Isn't it better to use our talents and technology to build systems that destroy missiles, not people?"

MARCH 27, 1986

The U.S. and the Federal Republic of Germany sign a Memorandum of Understanding on the terms of West German participation in SDI research.

APRIL-JUNE 1986

A series of Flexible Lightweight Agile Guided Experiments (FLAGE) are conducted. These kinetic energy experiments demonstrate the guidance technologies necessary to intercept a warhead both in and beyond the Earth's atmosphere.

MAY 6, 1986

The governments of the United States and Israel sign a Memorandum of Understanding on the terms of Israeli participation in SDI research.

JULY 1986

SDI's first Particle Beam Experiment irradiates a miniature reentry vehicle with a high-intensity proton beam. The results indicate that the explosive contained in the reentry vehicle is highly vulnerable to the particle beam.

JULY 25, 1986

In a letter to General Secretary Gorbachev, President Reagan proposes that the sides agree not to deploy advanced strategic defenses for a period through 1991. Thereafter, if either side wished to deploy such

defenses, it would present a plan for sharing the benefits of strategic defense and eliminating ballistic missiles. The plan would be subject to negotiation for two years. If, at the end of two years, the sides were unable to reach agreement, either side would be free to deploy defenses after giving six months' notice.

AUGUST 1986

"The Soviet Propaganda Campaign Against the U.S. Strategic Defense Initiative," is published by the U.S. Arms Control and Disarmament Agency.

It explains the methods of the Soviet anti-SDI campaign: to flood the West with statements from high Soviet officials, with interviews with Soviet spokesmen on Western broadcast media, and with newspaper articles, press releases, pamphlets, and petitions from front organizations and state-controlled Soviet scientific groups.

It also explains the goals of this campaign: to "stimulate opposition to SDI in the U.S. and other allied countries, inhibiting Western research and development into defenses—even as the Soviet Union forges ahead with its own ABM programs, including research and development in advanced ballistic missile defense technologies."

AUGUST 6, 1986

In remarks at a Washington briefing on SDI, President Reagan says "SDI is no bargaining chip, it is the path to a safe and more secure future...it's the number of offensive missiles that needs to be reduced, not efforts to find a way to defend mankind against these deadly weapons."

SEPTEMBER 5, 1986

The Delta 180 experiment obtains data for characterizing rocket plumes during the boost phase; studies rocket signatures during the close-in phase of a space intercept; and validates guidance laws using actual accelerating vehicles in space. The mission's results provide data critical to the development of small space-based interceptors.

The experiment utilizes an SDI satellite carrying a radar tracker and a rocket modified to carry advanced infrared sensors, the first laser radar ever flown in space, a Maverick air-to-ground missile infrared imaging system and two cameras. The target is intercepted at a closing speed of 6,500 miles per hour.

SEPTEMBER 19, 1986

The U.S. and Italy sign a Memorandum of Understanding on the terms of Italian participation in SDI research.

SEPTEMBER 22, 1986

Speaking to the U.N. General Assembly, President Reagan says that if the U.S. and U.S.S.R. can agree on radical reductions in strategic offensive weapons, the U.S. is prepared to sign an agreement with the U.S.S.R. on research, development, testing and deployment of strategic defenses based on the following:

- Both sides "would agree to confine themselves, through 1991, to research, development and testing, which is permitted by the ABM Treaty, to determine whether advanced systems of strategic defense are technically feasible."
- "If, after 1991, either side should decide to deploy such a system, that side would be obliged to offer a plan for sharing the benefits of strategic defense and for eliminating offensive ballistic missiles."
- "If the two sides can't agree after two years of negotiation, either side would be free to deploy an advanced strategic defensive system, after giving six months' notice to the other."

OCTOBER 11-12, 1986

At a meeting in Reykjavik, Iceland, President Reagan and General Secretary Gorbachev come close to an agreement for significant reductions of offensive ballistic missiles. However, Soviet efforts to cripple SDI prevent agreement.

In response to the Soviet proposal that the U.S. provide a 10-year commitment not to withdraw from the ABM Treaty, the U.S. offers to accept such a commitment for the 10-year period through 1996, during which research, development and testing, which are permitted by the ABM Treaty, would continue. U.S. acceptance is contingent upon:

- A 50-percent reduction in strategic offensive forces of the U.S. and the U.S.S.R. by 1991;
- Elimination by 1996 of all U.S. and Soviet offensive ballistic missiles; and
- Agreement that either side could deploy advanced strategic defenses after 1996, unless the sides agreed otherwise.

The Soviets, however, seek in effect to amend the ABM Treaty by banning testing of space-based "elements" of a missile defense system outside of laboratories. This would have killed the U.S. SDI program—something President Reagan could not accept.

NOVEMBER 5-6, 1986

At meetings between Secretary of State George Shultz and Soviet Foreign Minister Eduard Shevardnadze in Vienna, the U.S.S.R. proposes special talks to negotiate what would be permitted and prohibited under the ABM Treaty.

NOVEMBER 7, 1986

The U.S.S.R. tables a proposal at the Geneva NST talks which would commit both sides not to withdraw from the ABM Treaty for 10 years.

1987

JANUARY 15, 1987

The U.S. begins Round VII of the NST talks in Geneva with its proposals on D & S already on the table:

- Mutual commitment, through 1996, not to withdraw from the ABM Treaty for the purpose of deploying advanced strategic defenses; and during that period to observe all ABM Treaty provisions while continuing research, development and testing, which are permitted by the ABM Treaty.
- Mutual commitment not to withdraw from the ABM Treaty through 1996 contingent upon 50 percent reductions in strategic offensive arms by the end of 1991 and the total elimination of all remaining U.S. and Soviet offensive ballistic missiles by the end of 1996.
- Acknowledgment that either side shall be free to deploy advanced strategic defenses after 1996 if it so chooses, unless the parties agreed otherwise.
- The right to withdraw from the ABM Treaty for reasons of supreme national interests or material breach would not be forfeited by the above commitment.
- All of the above elements to be incorporated in a new treaty. Alternatively, the U.S. proposal set out in President Reagan's July letter to General Secretary Gorbachev remains on the negotiating table.

APRIL 15, 1987

During meetings with General Secretary Gorbachev and Foreign Minister Shevardnadze in Moscow, Secretary Shultz makes a new U.S. D & S proposal, incorporating the following elements:

- Both the U.S. and the U.S.S.R. would commit through 1994 not to withdraw from the ABM Treaty.
- This commitment would be contingent on implementation of agreed START (Strategic Arms Reduction Talks) reductions, i.e., 50-percent cuts to equal levels of 1,600 strategic nuclear delivery

vehicles and 6,000 warheads, with appropriate sublimits.

- The agreement would not alter the sovereign rights of the parties under customary international law to withdraw in the event of material breach of the agreement or jeopardy to their supreme interest.
- After 1994, either side could deploy defensive systems of its choosing, unless mutually agreed otherwise.

To build mutual confidence by further enhancing predictability in the area of strategic defense, and in response to stated Soviet concerns, the U.S. also proposes that the U.S. and the U.S.S.R. annually exchange data on their planned strategic defense activities.

In addition, the U.S. seeks reciprocal U.S. and Soviet briefings on their respective strategic defense efforts and visits to associated research facilities, as proposed in the U.S. Open Laboratories Initiative. The U.S. also proposes establishing mutually agreed procedures for reciprocal observation of strategic defense testing.

MAY 21, 1987

A FLAGE follow-on test is conducted at the White Sands Missile Range. The successful intercept demonstrates guidance technologies and accuracy required for the interception and destruction of a tactical ballistic missile within the atmosphere. The 12-foot FLAGE vehicle uses its millimeter-wave radar to lock onto the target, a U.S. Army Lance short-range missile. The onboard computer fires some 216 rocket motors, the size of a shotgun shell, in a collar behind the radar to move the speeding vehicle in the correct direction. The intercept takes place at an altitude of 12,000 feet.

JULY 21, 1987

The U.S. and Japan sign a Memorandum of Understanding on the terms of Japanese participation in SDI research.

JULY 29, 1987

The Soviets propose at Geneva a draft D & S agreement limiting ABM research and development to laboratories on Earth and permitting some non-ABM research in space. The Soviets still seek to impose additional constraints on U.S. SDI far beyond those contained in the ABM Treaty and still tie reductions of strategic offensive nuclear weapons to U.S. acceptance of measures designed to cripple SDI.

SEPTEMBER 1987

In the Geneva D & S talks, the Soviets amend their July proposal, thus acknowledging the right of the sides to conduct ABM research in space.

SEPTEMBER 15-18, 1987

Secretary Shultz and Foreign Minister Shevardnadze fail to narrow their differences on D & S issues during their meetings in Washington.

SEPTEMBER 18, 1987

Secretary Weinberger approves the recommendation of the Defense Acquisition Board (DAB) that selected SDI concepts and technologies enter the Demonstration and Validation phase of the defense acquisition process. The recommendation is based on a thorough review by the DAB of the SDI program's technical progress throughout the summer and a determination that several SDI technologies were sufficiently advanced to enter the next phase of research and development—the Demonstration and Validation phase. This is the first SDI milestone review and is a normal step in the Department of Defense acquisition process.

OCTOBER 22-23, 1987

Discussions between Secretary Shultz and Foreign Minister Shevardnadze in Moscow produce no narrowing of differences on D & S issues.

NOVEMBER 30, 1987

In the first public admission by the Soviets that they are engaged in research similar to the SDI program, General Secretary Gorbachev says during a televised interview:

"Practically, the Soviet Union is doing all that the U.S. is doing, and I guess we are engaged in research, basic research, which relates to those aspects which are covered by SDI in the U.S."

DECEMBER 7-10, 1987

At the Washington Summit, President Reagan and General Secretary Gorbachev agree to instruct their delegations in Geneva to work out an agreement that would commit both nations to:

Observe the ABM Treaty as signed in 1972, while conducting their research, development and testing as required, which are permitted by the ABM Treaty, and not to withdraw from the ABM Treaty, for a specified period of time for the purpose of deploying advanced defenses.

The leaders agree that:

- Intensive discussions of strategic stability shall begin not later than three years before the end of the specified period. After the specified period, in the

event the sides have not agreed otherwise, each side will be free to decide its own course of action.

- Such an agreement must have the same legal status as the treaty on strategic offensive arms, the ABM Treaty and other similar legally binding agreements.
- The sides shall discuss ways to ensure predictability in the development of the U.S.-Soviet strategic relationship under conditions of strategic stability, to reduce the risk of nuclear war.

1988

JANUARY 15, 1988

The U.S.S.R. presents a draft START treaty protocol pertaining to D & S issues. This draft is not consistent with the Washington Summit Joint Statement. The Soviets continue to maintain a position on the ABM Treaty that is clearly more restrictive than that agreed to in 1972. Provisions of the Soviet draft protocol include:

- Agreement would commit the sides to observe the ABM Treaty, as signed in 1972, while conducting their research, development and testing as required, of those ABM systems which are permitted by the ABM Treaty, and not to withdraw from the ABM Treaty, for the duration of this protocol (10 years).
- Negotiations with the aim of reaching an accord on further strengthening of strategic stability shall begin not later than three years before the end of the term of the protocol. The parties will discuss the problem of ABM defenses taking into account the new situation resulting from reductions in strategic offensive arms.
- In the event the sides have not agreed otherwise as a result of these negotiations, after the protocol expires each side shall determine for itself its further actions with respect to the ABM Treaty and the START treaty, subject to compliance with the relevant procedures of these treaties.
- Entry into force simultaneous with the START treaty for duration of 10 years. START treaty ceases to be in force if either party violates the ABM Treaty or protocol regarding that Treaty.
- Exchange of information to clarify ambiguous situations; exchange of data regarding certain devices which are scheduled to be put into space; and inspections of certain sites and facilities which give rise to concerns regarding compliance with the ABM Treaty.

JANUARY 22, 1988

The U.S. presents a draft D & S treaty, which is consistent with the Joint Statement issued at the conclusion of the Washington Summit. Provisions of the draft treaty include:

- Agreement would commit the sides to observe the ABM Treaty, as signed in 1972, while conducting their research, development and testing as required, which are permitted by the ABM Treaty, and not to withdraw from the ABM Treaty, for a specified period of time.
- Intensive discussions of strategic stability shall begin not later than three years before the end of the specified period, after which, in the event the sides have not agreed otherwise, each side will be free to decide its course of action.
- Entry into force contingent upon entry into force of START treaty; D & S treaty would be of unlimited duration with "specified period" of nonwithdrawal from ABM Treaty to be negotiated; continued observance of the ABM Treaty through that period and until either party chooses a different course of action. After the "specified period," either party is free to choose to deploy strategic missile defenses that are prohibited by the ABM Treaty upon giving the other party six months' written notice of its intention to do so.
- The sides shall discuss ways to ensure predictability in the development of the U.S.-Soviet strategic relationship under conditions of strategic stability, to reduce the risk of nuclear war.
- The U.S. proposes that confidence-building measures to provide predictability for each side regarding the strategic defense programs of the other be included as an integral part of the D & S treaty in the form of a protocol.
- U.S.-proposed predictability measures include an annual exchange of data on planned strategic defense activities, reciprocal briefings on respective strategic defense efforts, visits to associated research facilities, and establishment of procedures for reciprocal observation of strategic defense testing.

FEBRUARY 8, 1988

In the successful Delta 181 Experiment, a Delta rocket is launched from Cape Canaveral with a payload of sensors and test objects. The sensor module deploys 14 test objects and, using an assortment of active and passive sensing instruments, characterizes the objects in a variety of space environments. Sensors also observe the launching of a research rocket from the Pacific Missile Range. The data gathered from this complex, unmanned orbital space mission will aid in the design of sensors for a strategic defense system.

MARCH 14, 1988

Addressing a Washington conference on the first five years of SDI, President Reagan discusses progress made in the program and the U.S. concept of moving in phases toward SDI's ultimate goal of truly comprehensive defenses. He says that the U.S. will "continue to research SDI, to develop and test it. And, as it becomes ready, we will deploy it."

MARCH 17, 1988

At the D & S talks in Geneva, the U.S. proposes a protocol to enhance predictability in the development and testing of strategic defense technologies.

MARCH 23, 1988

The U.S. celebrates the fifth anniversary of President Reagan's landmark speech on SDI.

The official groundbreaking for the construction of SDI's National Test Facility (NTF) is held. The NTF will serve as the coordinating point and hub for the various geographically remote facilities that will be linked electronically. Those experiment and simulation facilities together constitute the National Test Bed (NTB). The NTB program will provide the capability to compare, evaluate and test the alternative architectures proposed for a layered defense and its associated battle management and command, control and communications. The NTB will represent the major simulation activity for the SDI program and will provide as much realism as possible within the constraints of international agreements.

