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Political, Economic and Strategic Implications

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STRATEGIC ISSUES AND IMPLICATIONS

Initial European reactions to President Reagan's Strategic Defense Initiative (SDI) speech were a mixture of disbelief and irritation. Disbelief, as the Pershing and Cruise missiles had yet to arrive and already "here-go-the-Americans-again".¹ Irritation, as NATO Europe was neither forewarned of the speech nor consulted on its contents. But after the surprise and exasperation wore off, Europeans began to seriously examine the strategic implications of SDI for their security, an assessment that mirrored their reactions to the limited US anti-ballistic missile (ABM) deployment fifteen years earlier. European military-strategic concerns are several and will be presented here in five separate but overlapping sections: 1) questions about coupling, the credibility of the American nuclear guarantee and effects on NATO strategy and doctrine; 2) concerns about strategic instabilities and the arms race; 3) worries about the future of arms control and the ABM Treaty; 4) speculation about the impact on the French and British nuclear forces and alliance cohesion; and 5) anxieties over the enormous costs involved.

1. Coupling, the American Nuclear Guarantee, and NATO Strategy

What makes the maximal version of SDI so troubling to many Europeans is its frontal attack on a central feature of superpower nuclear parity: deterrence based on the vulnerability inherent to Mutual Assured Destruction (MAD).² This vulnerability has been tolerable over time as it is shared with the US. American attempts to escape this vulnerability, especially through technological means like SDI, meet with cries of protest from Europe. Political rather than technological approaches to security problems are generally preferred by Europeans. Even those who endorse SDI, including the West German Defense Ministry, view it as a counter to Soviet programs, and not as an eventual replacement for deterrence.³ Several analysts see SDI as a means by which the US hopes to permanently shirk its extended deterrence responsibilities.⁴ The US would withdraw into a "Fortress America", protected by what British Foreign Secretary Sir Geoffrey Howe called a "Maginot Line in the sky". Despite the offers to extend the Shield to Europe,⁵ so some analysts argue, the damage had been done, "political decoupling" had begun.

Tied to the anxiety over the possible decoupling of European and American security is concern over the credibility of the US nuclear guarantee. The nebulous problem of credibility has been the root of numerous NATO disagreements, including the 1960's debate over flexible response, the more recent Euromissile deployment, and is central to the discussion of the strategic implications of SDI. The credibility of the American nuclear guarantee began to decline when the US first became vulnerable to Soviet ICBM's in the early 1960's. The erosion was **furthered** by the arrival of superpower nuclear parity, approximately a decade later. Doctrinal and weapons "modernizations" are deemed necessary to give the NATO defense posture, and especially the policy of nuclear first use, added credibility.

Credibility is two dimensional: it has both political and military components. The military dimension of credibility was raised by our earlier discussion of deterrence and vulnerability. SDI proponents see the program as paving the way for a new form of deterrence that would solve NATO's chronic

credibility problem. Rather than being based on the fear of mutual obliteration, "deterrence by denial" would rely on defensive systems to dispel first strike fantasies and "limit damage" in case of war. This damage limiting function of SDI would ostensibly reduce the vulnerability of the US and thus bolster the guarantee to Europe. Yet this military means of shoring up extended deterrence leaves some critics of missile defense unconvinced. As Alastair Buchan wrote during the 1960's debate over ABM:

The American response in a crisis is envisioned more as an act of political will than of strategic calculation...BMD would have to be shown to reduce American casualties to something near zero in the event of central war to affect the argument about the credibility of the US guarantee to Europe.⁶

This assessment of the importance of the political component of credibility is shared by McGeorge Bundy and Denis Healy, who suggest that it is the uncertainty of the Soviet Union and not the certainty of the Europeans about coupling that really matters. As long as the Soviets are the least bit uncertain whether the US will use nuclear weapons in Europe's defense, the guarantee has sufficient credibility.

Many Europeans fear that even this minimal Soviet uncertainty will evaporate should both the US and the USSR develop comprehensive ballistic missile defenses (BMD's). The probability of unilateral deployments is very low, as the history of superpower arms competition and intensive US and Soviet BMD and anti-satellite (ASAT) research programs attest. An analysis, then, of the ramifications of unilateral deployments is unnecessary. The result would be an "unprotected and unprotectable *glacis* in Europe".⁷ A Soviet BMD would, according to this argument, limit NATO and ultimately American escalation options. Some worry that even the doctrine of first use would be called into question.⁸ A Europe stuck between the BMD-protected superpowers might become the battlefield in a limited nuclear war, a possibility admitted by BMD advocates.⁹ This could come about if US escalatory capability, the basis of flexible response, was restricted by a Russian Star Wars. The Soviet Union might, in a worst-case scenario, be tempted to preemptively attack NATO assets with little or no risk to itself. But would US limited strike options be ruled out by a Soviet BMD? Not necessarily. For one, any nuclear first use on the battlefield would occur without "leak-proof" defenses against airbreathing threats (cruise missiles and aircraft) or artillery shells. Second, a Soviet BMD need not deter NATO from moving up its pre-planned ladder of escalation. If the use of tactical nuclear weapons was not enough to halt the conflict, NATO could still resort to forward-based (FB-111) or sea-based (Poseidon) systems to further signal resolve. This signaling function would remain regardless of the military effectiveness of their use. Missiles that did not penetrate a Soviet Star Wars might actually be *more* effective as couplers: they would make an ascent to the strategic level more plausible. A US decision to cease escalation at the intermediate level need not be prompted by a Soviet BMD. Third, any use of nuclear weapons against the Soviet Union however limited, would, according to announced Soviet policy, result in retaliatory strikes against the US, thereby ensuring coupling. There is no evidence to suggest that in the unlikely event the Soviets chose not to retaliate, that this decision was motivated by an American BMD. Thus, if it had any effect, SDI would marginally improve the credibility of the US nuclear guarantee, independently of whether the Soviet had a comparable system. Soviet leaders would consider a less vulnerable US, more inclined to come to

Europe's aid. But the important point is: SDI would *not* have dramatic effects on the decision to initiate or escalate nuclear war in Europe. That decision would remain as prone to the psychological and other uncertainties inherent to the contemplated or actual use of nuclear weapons. Rational decisionmakers could never be so confident of their defenses that they would take inordinately larger risks in Europe than at present. Where does this leave extended deterrence? About where it is today.

2. *Instability and the Arms Race*

Two frequent criticisms of SDI are that it will lead to instabilities in the superpower relationship, especially in the transition to a "defense dominated" world, and that it will accelerate both offensive and defensive arms races. The possibility of one side developing a shield before the other raises the specter of a first strike. An SDI-protected superpower might consider a first strike possible against its more vulnerable rival, feeling confident that any surviving retaliatory forces would be deflected by its BMD. There is the added risk, noted by the Palme Commission, that the superpower slower in its Star Wars deployment may, out of fear of its antagonist's growing capability, preempt with its own first strike. Yet, as in the previous discussion of strategic coupling, it is highly unlikely either the US or the Soviet Union would so trust its own supposedly leakproof BMD, or so fear its opponent's, that it would deem a first strike profitable.

Another possible instability is the greater importance of conventional forces in the event of mutual missile defenses. The danger might emerge when both the US and the USSR had deployed BMD's, thus leaving inferior NATO conventional forces at the mercy of the superior Warsaw Pact armies. The conventional force disparity would need to be rectified at enormous cost - a politically impossible task given the reticence of European and North American publics to increase defense spending. This problem is mitigated by three developments. First, the accepted wisdom of overwhelming Warsaw Pact conventional superiority has been challenged.¹⁰ Second, NATO is several years into a long-term conventional modernization effort, the "Rogers Plan", which will procure more tanks, aircraft, and artillery, as well as introduce "smart weapons" into the arsenal. It is former NATO supreme commander Rogers' opinion that these efforts are sufficient to sustain the deterrent effect of the Alliance's conventional forces into the next century. Third, mutual NATO-Warsaw Pact conventional force disarmament appears a definite possibility in the early 1990s.

Star Wars is seen by many critics as a dangerous new step in superpower arms competition which goes far beyond what had been considered a "prudent" level of BMD research. When examined in conjunction with the vigorous Soviet BMD program, it is apparent that the race is already on.¹¹ According to SDI proponent Werner Kaltefleiter, "a defensive arms race is inevitable".¹² The race would not be run solely with defensive systems. In order to overwhelm or saturate the other's BMD, the superpowers may build more ICBMs, SLBMs and strategic bombers. There is little doubt that each side, in the event of the other's having a BMD, would feel more comfortable, more sure of the credibility and effectiveness of its force structure, with a reinforced offense. The prospects for arms control in this situation - disarmament would be impossible - are dim.

3. Arms Control and the ABM Treaty

While wary of SDI's possible negative effects on arms control, the Kohl government accepted the Reagan administration's claim that Star Wars not only brought the Soviets back to Geneva, but wrung concessions from them as well. The Reagan administration envisioned massive arms reductions preceding the introduction of defenses. If Washington can convince Moscow that Star Wars is not to complement American counterforce potential, but rather to replace it with defenses, a transition of this sort might be manageable. The more effective the BMD, the more missiles could be dismantled, perhaps to some "minimum deterrence" level. Fifty percent reductions in offenses could become reality if Moscow accepts the American reasoning *and* the US agrees to honor the ABM Treaty for about fifteen more years. There appears to be little middle ground if Star Wars is here to stay - either the superpowers deeply slash their offensive arsenals and protect the rest with a BMD, or add to their missile stockpiles as quickly as possible while erecting strategic defenses.

Bonn has made clear its firm support of the ABM Treaty and arms control. West Germany was a primary diplomatic, economic and political beneficiary of détente in the late 1960's and early 1970's. The Germans, with perhaps the most to gain from détente, also have the most to lose in its absence. Even the CDU/CSU reconciled itself to cooperation with the East, and its current *Ostpolitik* is virtually indistinguishable from that of Helmut Schmidt. The decline of détente in the late 1970's and early 1980's brought with it the German peace movement. Already convinced of the value of arms treaties, the concrete legacy of détente, Bonn "realized that nuclear reliance on the US is politically acceptable only if it is constantly accompanied by arms control efforts".¹³ This commitment to arms control is illustrated by a June 1984 speech in Moscow by Horst Teltschik, security advisor to Chancellor Kohl:

the last substantial proposals from the US at the INF negotiations in Geneva, at the MBFR talks in Vienna and at the Geneva negotiations on the worldwide ban on chemical weapons were largely brought about by the Federal Government and other European partners who exercised a major influence on them.¹⁴

The Germans have been less successful in affecting American strategic and space weapons negotiating positions, witness the US decisions to exceed SALT II offensive limits and reinterpret critical elements of the ABM Treaty. The reinterpretation of the ABM Treaty was necessary to accommodate planned Star Wars development and testing into the nineties. Foreign Minister Genscher's repeated calls for a return to a "restrictive" reading of the ABM Treaty reflects German support for the Treaty, considered one of the few survivors of the disintegration of détente. The ABM agreement meets with Bonn's approval for three reasons: it assures the continued credibility of the French and British nuclear forces; it does not limit the transfer of offensive weapons to Europe; and the Treaty prevents the creation of zones of unequal security within the alliance.¹⁵ The deployment of SDI, it is feared, may undermine these valuable facets of the Treaty. Bonn has urged Washington to negotiate any future exit from the Treaty with the Soviets in order to mitigate the effects such a move could have on the ABM regime and arms control.

4. French and British Nuclear Forces and Alliance Cohesion

The primary worry over the European nuclear arsenals arises from the reciprocal Soviet BMD which any American defensive emplacement, outside the bounds of the ABM Treaty, would provoke. The British and French forces are considered by some to have grown in strategic value since the onset of superpower nuclear parity. Once viewed as expensive surrogates for lost empires, the European triad is now seen as more than a mere trigger of the American strategic guarantee, rather as a contribution to regional deterrence in its own right. This function will be enhanced, it appears, by the current modernization programs which will significantly increase the number and sophistication of warheads. The build-up, when combined with BMD countermeasures, could suffice in maintaining the minimum deterrence posture of these forces despite a Soviet Star Wars. The possibility that modernization and countermeasures might not balance a new Soviet BMD naturally disturbs French and British defense planners. This matter is further complicated by shifting budget priorities. French conventional defense spending has already been reduced to offset the nuclear modernization.

French President Francois Mitterand has been especially critical of SDI, and the Thatcher government too harbors grave reservations about its strategic wisdom. These anxieties have led to concern over a possible fraying of the alliance on account of transatlantic differences over Star Wars. As an Office of Technology Assessment report noted: "Whether the US BMD research program now, and any deployment in the future, can be conducted as to avoid endangering the cohesion of our alliances is an important issue."¹⁶ The US has consulted with NATO Europe on SDI's progress and has made concerted efforts to enlist as many allies as possible in the research. Attention has been paid to European misgivings and conscious attempts made to color SDI as a deterrence-enhancing research program. Envisioning European objections to pre-SDI US BMD programs, Herman Kahn remarked, "They won't like it of course, but they are sensible people when they're forced to be sensible."¹⁷ Another American BMD proponent complained, "No possible strategy can fully satisfy the European allies who continue to look for an easy solution where none exists."¹⁸ Yet, SDI is a proposal, in Lawrence Freedman's words, to "solve a problem we Europeans don't want solved."¹⁹ If "alliance cohesion" is a euphemism for American hegemony within the alliance, so far SDI has restored a measure of US dominance by keeping Western Europe off balance. But should Star Wars overwhelm the ABM Treaty and preclude successful arms negotiations, alarm will be justified.

5. Impact on Resources

Any decision to construct and deploy space-based missile defenses may have dramatic effects on US budget deficits, the allocation of scientific and technological talent and resources, and NATO conventional defenses. An in-depth study of the cost of a deployed SDI arrived at the admittedly optimistic price range of \$160-770 billion.²⁰ The study assumed very favorable economies of scale, and made no allowance for inevitable cost overruns. General Rogers, who counseled against deploying Star Wars if it is only fifty or sixty percent effective against missiles, has expressed concern that it might drain funds away from his modernization plan.²¹ This apprehension was amplified by another

senior American NATO commander, who in "a sharp exchange" with former Strategic Defense Initiative Organization (SDIO) director, Lt. General James Abrahamson, "feared for his ability to get us to the year 2000 if SDI starved the budget for the grubby particulars of ammunition and logistics on which NATO's conventional defense depends."²² Record budget deficits and NATO's share of Pentagon spending may combine to create inter- and intra-service rivalries over SDI and the other priorities it edges out in the competition for shrinking defense funds. Deficit reduction could focus on Europe-directed spending for cuts, especially the easy targets of training and readiness, thus raising new questions about the credibility of the conventional deterrent. The burden sharing debate could be intensified in an attempt to squeeze more defense monies from unwilling European publics; the effects on alliance cohesion are predictable.

As Congress has already reduced Reagan and Bush administration requests for SDI research dollars, these fears may be exaggerated. Reagan singled out Star Wars for his personal support in the Fiscal Year (FY) 1987 congressional budget battle. One German proponent, sensing the mood on Capitol Hill, urged that it "remain a high priority project."²³ Congress may refuse to fund any SDI projects which it thinks may violate the ABM Treaty. In order to be economically viable, Star Wars must show that it is cheaper than Soviet countermeasures and arms control. Yet, "We are", according to General Abrahamson, "a nation that can produce miracles."

THE ECONOMICS OF PARTICIPATION

Throughout the last six months of 1985 and into 1986, Reagan administration and various "independent" Star Wars proponents crisscrossed Europe promoting SDI as a modern-day equivalent of the Manhattan Project that would produce significant by-products for the civilian and military sectors of Western economies.²⁴ Indeed, "wherever one turns these days...one finds top American officials, on public platforms, in private conferences, in ministerial offices, extolling the virtues of the product."²⁵ This unprecedented sales campaign expelled any lingering doubts about the seriousness of the US commitment to Star Wars. The question of European, and especially German, commercial participation in SDI rested upon two main issues. First, what, if any, commercially useful spinoff would result from the research? Second, would the companies involved in its development be permitted to gain the rights, licenses, and patents necessary to put any spinoff into civilian production? Thus, Bonn's central goal in negotiating a governmental framework for private participation was to assure Federal German enterprises access to any technology they might develop. Numerous restrictions on commercial exploitation would defeat the Kohl government's basic aim in SDI research participation.

1. *Dollars and Sense*

Some European industrialists suggest that Europe must never again miss major technological opportunities as it did during the Apollo moon project research, and are therefore strongly in favor of participation in SDI research. Yet, views differ between companies and within company boardrooms.²⁶ Two captains of industry, Zeiss chairman Skodulek, and Mannesmann chairman

Weisweiler, are skeptical of the civilian economic potential of SDI, while electronics conglomerate Siemens and the smaller Standard Elektrik Lorenz are actively pursuing research contracts.²⁷ West German interest is dominated by its two largest aerospace firms, Dornier and Messerschmitt-Bölkow-Blohm (MBB). "Very few of the smaller German companies have either the capacity or the money to participate in a program this size," according to Karl-Heinz Gehring, head of space activities for the German Aerospace Industries Association.²⁸ Information on German commercial participation is difficult to obtain, as the large firms are reluctant to discuss SDI possibilities for fear of adverse public reaction.²⁹ Red Army Faction bomb attacks against high-tech research institutes and scientists, and the publication of an "SDI Mafia" list of those firms and researchers interested in Star Wars by a Marxist student newspaper has prompted the low profile. Some companies are hoping to develop SDI-related technology, like Dornier's free-electron laser, under the Eureka banner.

Some observers see no great urgency for German participation. One study found German prominence in five out of eleven high-tech areas examined: new materials, high-speed missile components, high frequency techniques and signal processing, mirrors/reflectors, and optical sensors. German market share in three other advanced technologies: communications, magnetic suspension support systems and nuclear fusion is also substantial.³⁰ The central importance of these technological frontiers to Star Wars research is not lost on German businessmen. Yet the nagging feeling remains that SDI research may advance these frontiers considerably. US research agreement negotiating policy rejected the possibility of a common European position, had one appeared. Compounding concern about a two-way European-American technology flow is this "divide and conquer" strategy which prevents firms from knowing what their foreign and domestic rivals are offered.

"We would never accept such an order," remarked the Dutch electronics firm Philips upon news that Scotland's Heriot-Watt University received a \$150,000 research contract for an optical computer system.³¹ The SPD's von Bülow reacted similarly when MBB received the first publicly announced German contract, an 8.8 million D-Mark (DM) sum for an infrared detection system. The experimental project is for tracking ICBM trajectories, discriminating between warheads and decoys, and other target acquisition tasks.³² Although MBB's contract was the first to draw attention, other German companies with contracts for systems possibly connected to Star Wars include Interatom, \$4.1 million for laser research; Schott Optical Glass, \$984,000 for the construction of a lightweight laser mirror; and Zeiss, \$400,000 for research on laser imaging radar.³³ Schott and Zeiss deny their contracts are related to SDI. These sums prompted one German scientist to describe the activities of SDI operatives as "picking out the raisins."³⁴ "It's pretty small beer in the total bucket at this moment," agreed a British Marconi official.³⁵ *Der Spiegel* estimated that German firms would receive a maximum of 100 million DM worth of contracts over the five-to-six year SDI research phase, and compared that amount to the 31 billion DM German firms spend annually on research.³⁶ A Federation of American Scientists' study on prospective foreign participation estimated a maximum volume of \$300 million. This would represent approximately one percent of the total requested Star Wars research funds through 1990.³⁷ A *Frankfurter Allgemeine* editorial was somewhat more optimistic: if each of the some thirty firms able to contribute to SDI research received a contract, the total German share might reach four percent of the requested research monies. Such optimism appears unwarranted when taking into account growing protectionism

and economic nationalism in the US. "We don't expect the American Congress to pour taxpayers' money into European pockets," was the realistic assessment of Kurt Heitmann, vice president of the German optics firm, Ernst Leitz.³⁸ Indeed, several members of Congress, considering record trade and budget deficits, have complained about awarding SDI research contracts to foreign firms. Rep. Bruce Vento (D-MN) asked former chief Star Wars scientist Gerald Yonas in congressional hearings if he could "categorically say that no one in the administration has given consideration to contracting out in order to obtain support for the SDI program." "I can categorically state," Yonas replied, "that the purpose of dealing with our allies is to provide a way to solve these problems better, faster and cheaper than if we did not go beyond our borders."³⁹ Rep. John La Falce (D-NY) asked if Yonas could provide "a rough idea how much of the SDI research dollars will be spent...abroad." "We have no preconceived notion..nor do we have any offset or guarantee," replied Yonas.⁴⁰

2. Spinoff

Leading American Star Wars proponents claim that 90% of SDI research will produce spinoffs. SDI could thus pay for itself by selling patents for civilian processes and products. German enthusiasts are somewhat less euphoric: Baden-Württemberg's Minister-President Lothar Späth sees 50% of Star Wars research as relevant to the private sector, while the Chancellor merely claims SDI will lead to "important and wide-ranging economic results".⁴¹ The spinoff will be considerable for "all facets of our economy and society", according to Abrahamson.⁴² In order to facilitate the economic and social benefits he foresaw for Star Wars, Abrahamson formed the Office of Education and Civil Applications within SDIO with the intention of promoting "the widest possible use of SDI-related technologies, consistent with security considerations, for civil use".⁴³ Europeans were informed that the "new product types and entirely new industries" to emerge from SDI research will provide the US "with a competitive edge in international markets".⁴⁴ Yet the three main SDI programs that took up approximately 90% of its FY 1985 appropriation were primarily aimed at specific military demonstration projects - greatly reducing the chances for spinoff.⁴⁵

Most studies see very little *direct* spinoff from aerospace and military R&D. As for *indirect* spinoff, the example of the Apollo project - to which SDI is similar - reveals little of civilian use. Apollo project spinoff could have been developed through direct research at one-tenth the cost, according to critics. Much contemporary military technology is overspecialized, overdeveloped, and too complex to have commercial applications. Alice Tepler Marlin, executive director of the Council on Economic Priorities, considers "SDI's performance requirements so extreme that its technologies appear unlikely to find cost-effective uses in commercial products". "Private applications", according to Marlin, "of high-energy lasers, particle beams, large optics and infrared sensors are not immediately obvious. Commercial benefits from the bulk of SDI research are at best speculative".⁴⁶

SDI has reopened the German debate on spinoff. The German Association of Industry, which subscribed to the notion of spinoff in the 1950s, strongly rejected it in 1980, pointing out that military R&D resulted in far fewer innovations than basic research. Yet the Association called on the Chancellor to help devise a framework for German participation in Star Wars. In another switch,

Konrad Seitz, policy planning chief at the Foreign Ministry who once opposed West German involvement in SDI,⁴⁷ later pointed to the future importance of SDI technologies, including lasers, sensors, Very High Speed Integrated Circuits (VHSIC), fifth generation computers and artificial intelligence.⁴⁸ The case of the VHSIC, a central component of the SDI Strategic Computing Program, is instructive. An analysis of its spinoff potential foresees very little commercial application.⁴⁹ Similarly, fifth and sixth generation computers too hold little short-term promise as economically viable civilian products. One observer suggested that the market for them "will scarcely run into double figures".⁵⁰ A *Frankfurter Allgemeine* editorial claimed that "to expect non-military technological advances from SDI is to overestimate its civilian spinoff"; the chief scientist of IBM concurred that Star Wars would be largely irrelevant to the civilian economy.⁵¹ The German Defense Ministry argued that spinoffs "can not be the aim of German participation".⁵² When asked if SDI's spinoff potential was a reason for his support, Research and Technology Minister Riesenhuber replied, "No, not a sufficient one".⁵³

3. US Export Controls and Technology Transfer

Foreign firms intending to export high-tech products with American-made or licensed components face a growing array of US trade legislation and restrictions. Three such laws—the Arms Export Act of 1976, the International Emergency Powers Act of 1977 and the Export Administration Act of 1978—might be used to limit the export of products and processes that may result from Star Wars research and development.⁵⁴ The Commerce Department is nominally in charge of administering these export controls. To a great extent, however, the Pentagon decides which technologies are 'sensitive' and which are not. It compiles the nearly identical "Commodity Control List" and "Militarily Critical Technologies List" (MCTL). The 700-page MCTL, in the words of one analyst, "could be mistaken for an inventory of US high-tech goods".⁵⁵ More recently the Defense Department has drawn up yet another list, the "Militarily Significant Emerging Technologies Awareness List" that selects 'candidate' technologies that will probably, at a future date, warrant inclusion in the MCTL.⁵⁶ Of special concern to European industry are the limitations on technology transfer of the Coordinating Committee for Multilateral Export Controls (COCOM). Aimed at Soviet-bloc countries, COCOM restrictions were recently expanded to include the latest advances in robotics, integrated circuits, and new materials.⁵⁷ The expanded COCOM restrictions evoked criticism from various European quarters.

Horst Ehmke, leading German Social Democrat, was especially critical of the growing range of technologies subject to COCOM control. At a conference sponsored by the Friedrich-Ebert-Stiftung, Ehmke claimed that 50% of new products, from children's toys to toasters to satellite technology, were covered by US trade limitations. The dogged American attempts to restrict the exports of its allies were irreconcilable with European sovereignty and the SPD, Ehmke declared, had no more intention than anyone else of allowing the Soviet Union to threaten NATO using Western technology. The seemingly boundless US concept of security relevance made nonsense of declared NATO policy of seeking security through cooperation as well as by military means, ran counter to the Helsinki Final Accord, and could not be said to be in the West's political interests.⁵⁸ Apart from the concern over damage to détente, this is an assessment

widely shared in the Federal Republic, within the Kohl Government, and among German industry. The Germans, however, are not alone in feeling the pinch of US technology transfer regulations: one study estimated the loss to American exporters from US trade controls at \$16 billion annually.⁵⁹

The Pentagon has additional tools to clamp down on what Richard Perle called the "technological hemorrhage to the East". In conjunction with the Patent and Trade Mark Office, it has created two new restrictive rules to treat patents like other "sensitive" exports, with potential consequences for technology transfer.⁶⁰ Moreover, under the new Defense Department classification scheme, information and technical knowledge is treated like any other commodity, and university-generated research publications are subject to censorship if they might disclose the operating characteristics of any Star Wars system. Even the scientific communication of non-classified military research has been curtailed. Between February 1980 and April 1985, seventeen private science and engineering conferences were directed by the Pentagon to restrict participation in certain sessions to US citizens, or sometimes just to those with security clearances.⁶¹ German scientists too have experienced this type of supervision. In 1984, the US computer firm Control Data was refused a license to export an advanced computer to the Max Planck Institute in Hamburg. A condition of the export license was for every scientist at the Institute with access to the computer to receive a high security clearance and be barred from traveling to Communist countries. Each time the computer was used, a detailed document as to user and purpose was to be completed and returned to American authorities. The Institute rejected these conditions as an infringement upon the Federal German Basic Law.⁶²

German recipients of US government contracts have experienced similar problems. Dornier Aerospace built a small satellite-like platform (ROBUS) for experiments deposited in orbit by the space shuttle. Yet the company was dissatisfied with the outcome. "Building components means not having to risk a major portion of your company on just one card", according to Dornier R&D executive Helmut Ulke. "The problem is Europe is not getting much benefit from building components for the shuttle. We will be more careful in the future about signing memoranda of understanding". NASA requires a great deal of costly documentation, enough to allow the space agency to duplicate all production and testing procedures. "We find ourselves fully in the hands of NASA", complained Ulke. "We have invested billions in space projects, but we are not allowed to make our own decisions. This is a real conflict, and it will be a very sensitive point in discussion over European participation in the [Columbus] space station. How can we convince the political people to spend billions on space when there are no commercial applications because we are bound by US rules?"⁶³ Some Europeans believe that American export controls are aimed more at US commercial rivals than at the Soviet Union. One example which might contribute to this impression is that of the radio-TV satellite MBB had arranged to sell to China in 1984. The US refused MBB an export license because American components in the satellite were on a controlled technologies list. Shortly thereafter, an American corporation received the contract.⁶⁴ There is also the case of the Specialty Metals Act of 1982, "an out-of-the-blue congressional ban on buying weapons with foreign-made components that temporarily invalidated a number of mutually advantageous US-German weapons agreements".⁶⁵

Several prominent German politicians, among them Lothar Späth, were willing to run the risks of restricted exports so as to participate in SDI research "before the train leaves".⁶⁶ A senior French official was of a different opinion:

The Reagan administration has told us that this high powered technological train is leaving the station, and if we want to share in its benefits, we had better be on it. But what they don't realize is that Britain and Germany won't be in the front of the train or even in the middle. They'll be lucky if they wind up in the baggage car.⁶⁷

To prevent this discomfort, the Kohl government entered negotiations with the US over German participation in SDI research with a set of conditions designed to maximize German companies' ability to capitalize on any spinoffs from their labor. Defense Minister Wörner considered the "fair and open cooperation" proposed by the US as "only thinkable if the technological restrictions are lifted".⁶⁸ Former Foreign Ministry planning chief Seitz had less ambitious goals for a possible research agreement: it was to be a means of "enhancing German industry's ability to compete for and secure SDI contracts". "But the key issue", for Seitz, "is whether such an agreement will result in any priority for German firms. I don't think so".⁶⁹ This and other issues would be at the center of the German decision to join.

DECISIONMAKING AND THE AGREEMENT

1. *The Decision to Join*

While President Reagan may have offered to extend the Peace Shield to Western Europe in his original Star Wars speech, there was no initial hint that the allies might take part in its research and development. Weinberger's "very informal invitation" to Europe did not arrive until the Secretary of Defense presented his fellow defense ministers with a letter asking for "within 60 days, an indication of your interest in participating ... and of the areas of your country's research excellence that you deem most promising..." at the March 1985 meeting of the NATO Nuclear Planning Group (NPG) in Luxembourg.⁷⁰ The sixty day deadline struck many as an ultimatum, and the resultant uproar prompted Weinberger to drop the time limit. The US invitation coincided with the launching of "Star Wars II". President Reagan's original vision had encountered the skepticism of the American scientific community and of the NATO allies who had just finished shoring up the "immorality" (Reagan) of MAD by beginning deployment of 572 intermediate-range nuclear missiles. Star Wars II was almost as much of a surprise as had been its predecessor. But gone was the lofty rhetoric of the impermeable umbrella, replaced by the more terrestrial language of SDI as an enhancement rather than as a substitute for deterrence. It appeared much easier for West European governments to endorse a system intended to shore up the strategic status quo than one aimed at the replacement of deterrence by defense.

"As West Germany goes, so goes Europe" were the words of one journalist to describe the importance placed by the US on Bonn's participation in SDI research.⁷¹ Yet the events of 1986 belied this statement. By the end of the year, only Bonn and London had signed research agreements, and the British initialed theirs first. The French, lacking a governmental agreement, beat both the British and the Germans to research contracts; the Norwegians, Belgians, Dutch and Danes rejected official participation before the Kohl government could make up its mind. Among the major European powers, only the Italian decisionmaking process, in the midst of a coalition crisis, was slower than the Federal German. Bonn's hesitance was the result of a bitter domestic political fight over the shape and form of involvement. The order of battle included the Chancellor and his divided Christian Union parties; the Pentagon and its close German friends; Foreign Minister Genscher and the Free Democrats; the opposition parties; and the arms and aerospace lobby. The principle issues were loyalty to the US, standing up to the Soviet Union, technological rivalry and strategic *angst*.

The first substantial West German governmental reaction to SDI was that of Defense Minister Wörner after Secretary Weinberger's Star Wars presentation during an April 1984 meeting of the NATO NPG.⁷² Wörner could not refrain from venting his anxieties about the potential strategic effects of SDI, thus his labeling by an unnamed American official (almost certainly Richard Perle) as the "mouthpiece of European skepticism." The Defense Minister was quickly hushed by Kohl and Genscher for his indiscrete criticisms of President Reagan's vision.

The annual *Wehrkundetagung* in Munich was the forum for Chancellor Kohl's first significant address on SDI.⁷³ Calling SDI the "leading security policy problem in the years to come", he added for the skeptics in the audience, "one should be clear about the philosophical and moral origin of this initiative, and the deep personal engagement of President Reagan, and take him seriously." The Chancellor took an earnest poke at the Soviet BMD and ASAT programs and said it was evident that the Soviets "explicitly acknowledge that SDI research does not contravene the ABM Treaty," and that the US would negotiate any future development of defenses. Kohl declared that Bonn would examine not only the arms control and strategic aspects of SDI but also the technological challenge it posed and its effects on the alliance. According to the Chancellor:

- * a space-based missile defense must consider the unity of the alliance;
- * strategic instabilities, particularly in a possible transition phase, must be avoided;
- * Owing to its far-reaching implications for our security, SDI requires the most intimate and trusting consultations, bilaterally and within the alliance. We thank the US government for the ongoing dialogue;
- * SDI research, regardless of whether it achieves its intended aims, will result in a considerable innovative push in the US. A highly industrialized country like the FRG, as well as other allies, must not become technologically dependent;

SDI is a powerful incentive for the Soviet readiness to negotiate.

The Chancellor's multifaceted examination of SDI would be carried out by a special taskforce. Headed by security advisor Horst Teltschik, the thirty member delegation consisted of twelve government officials and eighteen businessmen and scientists.⁷⁴ Kohl stressed that German participation depended on "full [European] access" to US research results. Bavarian Premier Franz-Josef Strauss showed greater enthusiasm than had the Chancellor: "With the slogan 'militarization of space' which plays a role in Soviet propaganda as well as here, the impression is given that at any moment 'Star Wars' will begin and the stars will fall from the sky. We must consider our own formulation, above all vis-a-vis the young generation. It's not 'militarization of space', it's 'space for peace'."⁷⁵

It was not until the end of March that the Kohl government released its first official comments on SDI.⁷⁶ The Federal Government considered "it paramount... that no type of weapon" escape coverage in the US-Soviet Geneva negotiations and welcomed the "US administration's assurances that no superiority is being aspired to with SDI." The aim of the Geneva talks must be "to reduce greatly and limit strategic and intermediate-range nuclear weapons;" "to insure that... mutual research into new antimissile systems... leads to cooperative solutions;" and "to reaffirm the ABM Treaty" if it was not to be replaced by another bilateral agreement. Reagan's promise that no decisions on deployment would be taken until the end of the research phase, and his offer to hold "intensive consultations" with NATO Europe were noted approvingly. Four additional strategic considerations were arrived at "in agreement with our allies":

- * the alliance's strategy of flexible response must remain fully valid as long as there is no more effective alternative for preventing war;
- * the alliance's political and strategic unity must be safeguarded;
- * Europe's security must not be decoupled from that of the US;
- * the conventional imbalance in Europe must be eliminated.

Foreshadowed by the Chancellor's remarks to the CDU convention earlier in the month and elaborating upon his *Wehrkundetagung* address, these comments, a result of Federal Security Council deliberations and coalition politics, became the sturdy foundation of the West German position on Star Wars. All further government decisions and announcements on SDI were based on and reinforced the attitudes and values expressed here.

On 18 April the *Bundestag* held a general debate on Star Wars. Defense policy specialists from each party spoke; the SPD and Greens denounced the project, while the government parties, in varying degrees, supported Reagan's vision. Much of Kohl's speech was devoted to underscoring themes presented in both his Munich talk and the March government statement, but it also included a lot that was new.⁷⁷ He deliberately took the 'initiative' out of SDI, that is, the American program was defended as a reasonable response to wide-ranging Soviet advances in BMD and ASAT systems. This approach reflected the arrival of Star Wars II. The shift in marketing strategy found a more receptive Helmut Kohl. Star Wars II could be rationalized within the traditional framework of the

superpower arms race. Lashing out at the Social Democrats for their "absent sense of responsibility" among other failings, Kohl repeated his list of Star Wars 'don'ts', adding the anxiety producing phrase "differentiated zones of security" to his warning against neglecting alliance unity. Shrewdly underlining the non-nuclear character of SDI (there was no mention of the x-ray laser), Kohl emphasized as well the opportunity for influencing American policy that participation would afford the Federal Republic. Contemplating his notion of the origins of the Euromissile row, and with a group of visiting Soviet parliamentarians in the audience, the Chancellor determined it would be different this time around: "The Soviet Union must be prevented, right from the outset, through the allies' resolve and solidarity, from splitting the alliance and sowing mistrust in Western public opinion." Stressing the long term nature of SDI research, Kohl took the big step and described it as "justified, politically necessary" and "in the security interests of the West". With those words, the question of German participation shifted from "whether" to "how". The Chancellor's endorsement did not extend to an abrogation of the ABM Treaty: "There will not and must not be an automatic sequence of research, development and deployment of strategic defense systems." More explicitly than in the March government statement, Kohl urged that any decision to move beyond research must be the outcome of "cooperative solutions" with the Soviet Union. Of more immediate concern was the mode of West German participation. While not ruling out an official state role, Kohl hinted at solely commercial involvement. Conditions for German economic participation were a "fair partnership"; a "free exchange of findings"; the prevention of a "technological one-way-street"; the assurance of a "self-contained research area"; and "influence over the whole project".

Several weeks later, in May, the Chancellor had another opportunity to hold forth on SDI.⁷⁸ The West's annual economic summit had come to Bonn, and Kohl felt obliged to vigorously endorse SDI, albeit not without his provisos, for the visiting American president. François Mitterand took the same occasion to vehemently reject Star Wars and aroused speculation as to a Franco-German rift over the issue. Rather than a genuine difference, the rhetorical gap was instead a manifestation of the peculiarities of Paris and Bonn's respective relations with Washington. Shortly after the economic summit, the Chancellor referred to SDI, as he had in his *Bundestag* speech, as both "opportunity and risk" in his opening address to the North Atlantic Assembly's meeting in Stuttgart.⁷⁹ Kohl's wavering, or "hesitant endorsement"⁸⁰, was a mixture of the Foreign Ministry's misgivings and the Defense Ministry's enthusiasm. Many diplomats feared SDI's potential for worsening the already grim relations between the superpowers, for disturbing intra-German détente, and for rousing the dormant peace movement. Some senior defense officials shared the excitement of American Star Wars proponents and hoped it might restore US global hegemony. Several of Wörner's aides, whatever the merits of SDI, considered loyalty to the US an inviolable principle. An added incentive for many military and civilian defense professionals was the promise SDI research showed for developing technologies which might blunt the growing threat from Soviet cruise and short-range missiles. Yet this possible military spinoff and the myriad of other strategic issues were concerns for the 1990's or the twenty-first century. Star Wars research would continue at least a fiscal year or two beyond Reagan, no matter what the Europeans thought about it, and German attention turned to the economic particulars of participation in that research.

Early in June, the Chancellor's SDI taskforce, conditions in hand, set off for Washington in pursuit of a more solid notion of what the US had to offer.⁸¹ German critics had warned that the Americans would appropriate the best of European technology and scientific talent and then, with the strictest of export controls, prevent firms from exploiting any technology they might have helped develop. Teltschik's team returned to Bonn buoyed by a US assurance to a limited degree of commercial access, yet the vague pledge combined with the harsh legacy of American trade restrictions left the skeptics unconvinced. Despite the open question of spinoff, a prominent group of industrialists and politicians were concerned that spurred by the billions in research dollars, the US economy would make a quantum leap, leaving Europe in a Third World-like state of technological dependence. Franz-Josef Strauss and Lothar Späth, both governing states with concentrations of high-tech enterprises, became prophets of the Third Industrial Revolution and saw SDI participation as a means by which the Germans might take part. Strauss and Späth, along with various industrialists, lobbied aggressively for governmental promotion of Federal German involvement. They banked on the development of technological and institutional imperatives that would assure long-term participation. Similar efforts were made by retired General Franz-Josef Schulze at a Star Wars conference he chaired in Cologne at the end of June.⁸² The symposium, held several weeks after the return of the Chancellor's taskforce, comprised "the most potent German-American group" ever assembled, according to Schulze. It included Abrahamson, Perle and Edward Teller, and deliberately avoided strategic questions to focus instead on technological issues. Schulze suggested Bonn quit stalling and conclude an agreement as industry was eager to participate but was worried about its legal rights.

By the end of the summer, pressure by politicians and businessmen on Bonn to take a more active role in winning a German share of SDI contracts tapered off.⁸³ It had become clear that hopes for a bonanza of contracts were forlorn as firms reduced their estimates of research monies available for Europeans and the likelihood of valuable spinoff. Teltschik's taskforce toured US defense labs and Washington in early September for its "conclusive" fact-finding visit. The group took with it a consensus on the desirability of commercial participation and hoped to further sound out technology transfer possibilities. Its first visit in June had run up against Richard Perle's conception of any agreement as a reinforcement of US export restrictions. The tension was heightened by British motions toward an agreement; Bonn needed to strike a comparable deal. The team returned home with a better idea of what SDI was but with no concessions on the Chancellor's conditions, thus postponing the expected final decision on participation until December.

After talks with Kohl in late November, Prime Minister Thatcher announced her belief that Bonn would join London in consenting to take part.⁸⁴ To this probably unwelcome prodding was added the Star Wars II-style presentation of Caspar Weinberger in Bonn the first week in December.⁸⁵ In an effort to influence the Kohl cabinet's decision only a fortnight away, Weinberger catalogued the benefits of involvement. Calming fears of an ABM Treaty breakout, the Secretary claimed the US would negotiate any introduction of a BMD with the Soviet Union. SDI was not just a massive space program but one with "enormously valuable advantages for mankind in general." The shield would protect Europe as well as the US without decoupling; tests so far had indicated intermediate-range missiles would be easier to defend against than ICBMs; and in the classic Star Wars II formulation, SDI would enhance deterrence.

The cabinet decision of 18 December, rather than a clear nod to negotiate an SDI research agreement, was instead the announcement of an effort to arrange a general framework for economic cooperation with the US.⁸⁶ A victory of sorts for the Free Democrats [see the "FDP" section], the decision temporarily settled the heated argument over the form of participation. While the Pentagon preferred to negotiate a pact with Wörner as it had with his British counterpart Michael Heseltine, Kohl appointed Economics Minister Bangemann head of the negotiating team the day before the cabinet decision. The Chancellor downplayed the military aspects of SDI and sought to placate his coalition partners and the electorate [see the section on public opinion] by presenting involvement as a private commercial venture with a minimum of official backing. The cabinet decided it "does not aspire to state participation in the...research program and therefore will make no state funds available for cooperative projects", taking pains to point out that, contrary to some reports, the US had never asked it to help pay for Star Wars. The aims of the negotiating team were more precise than the economic conditions put forward in Kohl's *Bundestag* speech eight months earlier:

- * equal conditions for German firms in the competition for contracts;
- * safeguarding of German firms commercial rights;
- * development of spinoff from unclassified research results;
- * application of SDI research findings to the improvement of conventional defense;
- * improvement of consultation mechanisms;
- * inclusion of Berlin-based firms in the competition for contracts.

This last condition was important both symbolically and as insurance that the agreement would be of a civilian nature. Those enterprises that chose to take part would have their "legal position" improved by the general framework. Mention was made again of seeking a common European stance, perhaps a futile suggestion after the explicit American rejection of negotiations with a consortium of European states.

2. *Negotiations and the Agreement*

The question of what Bonn was negotiating and how the research would be characterized became an issue immediately upon Bangemann's January 1986 arrival in Washington. In the actual bargaining between the Pentagon and the Economics Ministry, Weinberger was represented by Richard Perle, Bangemann by his senior aide Lorenz Schomerus. Both teams included a substantial number of technology and science specialists. Perle's notion of the agreement had not changed since Teltschik's fact-finding trip in June and conflicted with the German idea that it was to be a larger economic cooperation framework. There were to be two accords, according to Perle, a memorandum of understanding governing SDI research, and a second arrangement specifically covering new,

more rigid technological restrictions which the US intended to apply to German exports to the East. Considerable time was spent arguing over the language of the guidelines on industrial involvement as Bonn was anxious to portray the accord as commercial in order to minimize domestic fallout and any negative effects on relations with the other Germany. While a hostile political reaction was expected from East Berlin no matter what the content of the pact, Bonn hoped to limit the damage by muting the military nature of the research. The US made it clear, however, that Star Wars was a military program and vetoed any reference in the text to "civilian" involvement. Schomerus suggested a five-year lifespan for the agreement, Perle countered that a specific expiration date was unnecessary. But fearful of being dragged into violations of the ABM Treaty if laboratory work gave way to development and deployment, the Germans insisted and a compromise was struck limiting Bonn's complicity to "research", without further mention of when the agreement might end. The US reportedly tried to involve the Federal Republic in the financing of Star Wars: the Germans flatly refused.⁸⁷ Perle wanted a secret arrangement, Schomerus asked how Bonn was to interest German industry to take part if the companies could not inspect the terms of participation. The difference was resolved by having Bonn check individual research contracts for congruence with the guidelines and later made moot by publication of the agreement. The inclusion of firms based in Berlin was, for domestic political reasons, a critical item on the German negotiating agenda. The US objected to some companies in Berlin taking part in what it considered military contracts. Bonn argued that since the accord was commercial, Berlin firms should not be excluded. This remained a sore point to the very end of the negotiations. Back and forth it went in this manner, through February and into March. The Chancellor was not amused.

Kohl's political fortunes were sagging. Public prosecutors in two states were opening investigations into whether the Chancellor had perjured himself during testimony about the Flick Affair. SPD chancellor candidate Johannes Rau and his party were ahead in opinion polls. A Red-Green coalition seemed the most likely outcome of the elections in Lower Saxony in June. Kohl considered an agreement on research participation a question of loyalty to the US in general, and Reagan in particular, yet he did not want just any agreement. He had publicly announced the German negotiating goals, and even though the attentive public on SDI was small, a failure to achieve the bulk of those aims would be perceived as another blow. Reagan Administration officials were reportedly "acutely aware of Kohl's predicament and did not want to embarrass or harm his political prospects... in next January's election".⁸⁸ Yet, the drawn-out negotiations were worse than an impasse, they were returning to once resolved issues. One shift affecting the bargaining was the official willingness of the French government to assist its firms in winning SDI contracts.⁸⁹ German participation was no longer as urgently needed as ammunition for the funding battle on Capitol Hill. The perception of Bonn's negotiating conditions as those of Genscher and the FDP rather than as the Chancellor's may also have led to a further hardening of the American position.

In response to a question at a 6 March press conference, Kohl asserted that "the negotiations are coming along very well, and staying within my approved framework". Relations with the US were "as good today as seldom before in the history of the Federal Republic". Only "procedural questions" and a "few open points" remained before the agreement could be signed, and these were "not insurmountable". Yet according to several reports, the Chancellor's assessment was overly optimistic.⁹⁰ The negotiations were "tough... and occasionally harsh

in tone". The Americans showed no sign of budging on Bonn's central concerns and at one point even asked if it would not have been easier to cooperate with German firms *without* a governmental understanding. Kohl's conditions were "tossed to the wind"; a "fair partnership was out of the question"; the US "claimed all rights to research results" with no exceptions; Washington "categorically refused... Bonn a specific area of research" and influence over the whole project. The Pentagon wanted Bonn to take an active role (not just as an honest broker) in the granting of contracts to German firms if it would not accept a state role. No research findings would be made available for conventional defense, unless perhaps, Bonn reconsidered and opted for deeper involvement.

As the German negotiating team had not been granted the authority to make a final deal, it returned to Bonn during the first week in March.⁹¹ Bangemann, Genscher and Kohl met for half an hour on 7 March to discuss the progress of the negotiations, where upon the Economics Minister was instructed to put together a synopsis of the still far-apart American and German positions. This report became the means whereby the three (Wörner was excluded from these deliberations) could operate with the same understanding of what was, and was not, transpiring. The Chancellor and his two Liberal ministers met again three days later and announced a consensus on the German bargaining stance. The meeting sparked a flurry of telephone calls to Washington in a last minute attempt at long distance arm-twisting. Wörner made calls to the Pentagon and the Foreign Ministry wondered if it could get George Schultz to intervene on Bonn's behalf. Still undecided was how Bonn would aid German firms in competing for contracts. Genscher objected to the Defense Ministry's offer to station a general at the Federal German embassy in Washington and it was thought three high-tech specialists would go in the officer's stead. Hopes were not high for American concessions as the US was already pressuring Bonn to sign quickly, and did not want to jeopardize its ongoing talks with Italy and Japan nor have the British come back asking for a better deal. But on 12 March, sensing imminent failure, Kohl wrote Reagan a letter urging greater cooperation in reaching an early agreement.⁹² According to American officials, Reagan then ordered a more conciliatory posture that would allow the Chancellor to achieve a face-saving pact.

Kohl declared, one week after sending his letter to Reagan, that West Germany and the US had reached basic agreement on a pact. Bangemann, Genscher and the negotiating team were, without being notified, upstaged by the Chancellor. [For their reactions see the "FDP" section] After observing joint German-American troop training exercises near the Bavarian village of Grafenwöhr, Kohl spent two hours talking with Weinberger before he announced an agreement in principle he was "very happy" with.⁹³ While neither would divulge details, reports indicated two documents would be signed; one governing Bonn's backing of German firms' participation and the other proscribing the use of technology developed under SDI contracts – just as Perle had suggested several months earlier. Bangemann could, unbeknownst to him, bring the negotiations to a "definitive conclusion" later in the week. The impact of the Chancellor's intervention was softened somewhat two days later by Kohl's spokesman's statement that the government expected the Economics Minister to sign the agreement after his arrival in Washington on 24 March provided he succeeded in "finalizing open questions".⁹⁴

At the Nuclear Planning Group meeting in Würzburg the day after Kohl announced the agreement, Weinberger told his fellow defense ministers that SDI

was "not a bargaining chip". "It will not be set aside in response to any demand in connection with any arms reduction agreement", declared the Secretary of Defense, forgetting the Chancellor's admonition against allowing Star Wars to obstruct arms control. There was however, some consolation for the Kohl government. The defense ministers were told that beginning in April, the US would begin accepting bids from European companies for "architectural studies" of a European Defense Initiative (EDI).⁹⁵ Near the end of the meeting, Wörner remarked that SDI was above all "a defense program, not a technological program". He is reported to have added, to a circle of close colleagues, that the agreement was now "just a problem for the FDP" and that in the contest between the Foreign and Defense Ministries, Genscher was the "loser".⁹⁶

Bangemann brought the agreement back to Bonn after several difficult hours with the Weinberger. [See the "FDP" section for a summation of a letter the Economics Minister wrote to his fellow Free Democrats defending his role in the negotiations and briefly describing the provisions of the agreement]. The Chancellor thanked Bangemann for his "success" and the cabinet voted to accept the agreement without distributing the text, a unique event in West German governmental practice. The text was available for Bundestag perusal, in a special "secrets room", but the opposition's 17 April motion to publish the text was voted down by the coalition majority.⁹⁷ The Economics, Defense, and Foreign Affairs committees thoroughly grilled Bangemann about the pact. The agreement consisted of: a four page document about technological cooperation; a fourteen page paper governing participation in SDI research; a two page letter from Bangemann to Weinberger on the creation of a "coordination office" in the Economics Ministry; two one page letters from Weinberger to Bangemann, one on the role of Berlin-based firms, the other on the role of the German Defense Ministry; a two page letter from Perle to Schomerus on export restrictions; and Schomerus' two page response to Perle.⁹⁸ The sideletters between Perle and Schomerus revealed a gap in the parties' understanding of spinoff export controls. Perle wrote that cooperation with German firms depended on the "effectiveness" of the agreement's security provisions. COCOM was no longer enough, the US wanted to directly prescribe what German companies could and could not export to the East; the first time the US had gone so far in an intergovernmental protocol.⁹⁹ Schomerus' response defended West German export control procedures and stated that the Federal Republic's trade restrictions would not go beyond COCOM. Bangemann backed his aide, adding that any further restrictions would make German firms "uncompetitive". The "general technology transfer provisions for the bestowal of classified research contracts on German enterprises would", according to the Economics Minister, "not suffice". This problem "was handled in a second agreement". The second document would "enable German firms to compete for contracts *under the same conditions* as US firms".¹⁰⁰ The agreement required participating German firms to contract directly with the Pentagon and then to check with the German embassy in Washington or the Economics Ministry in Bonn to verify that the terms of the contract jibe with the research agreement. Provision was made, according to Bangemann, for a standard grievance mechanism in case of "conflicts...and problems".¹⁰¹

In its Declaration of 17 April the government announced that:

- * there will be an exchange of information between defense ministries over the application of SDI research findings to conventional defense, especially air defense (Wörner created a special office in the Defense Ministry for this purpose);
- * the US government explicitly acknowledged that in its cooperation with German "partners" it would adhere to the ABM Treaty;
- * decisions about the development and emplacement of a BMD is not the object of the agreement and will not take place before the end of the decade.¹⁰²

The Declaration came in the form of a *Bundestag* speech by Bangemann. In a veiled reference to Perle's attempt to apply restrictions on German exports beyond those mandated by COCOM, the Economics Minister assured the members that German trade would be subject to no further limitations. Seeing to it that "past experience" (of German firms working for the US) would not be repeated, the agreement included a "consultation mechanism for the oversight of laws and administrative procedures".¹⁰³ The question of the nature -- civilian or military -- of the agreement was partially closed. "It is completely clear", said Bangemann, "...that the research has military applications, but this research is confined to theoretical possibilities...it does not extend to applications...as is made explicit by the mention of continued adherence to the ABM Treaty."

Yet, just when it seemed the FDP had admitted defeat, Bangemann added, "The civilian character of the research is also clear as research results may be applied to civilian projects." The government stood by its position, won American promises to allow spinoff from unclassified research and to prevent excessive secrecy. But what of the main economic stipulations put forward in the Chancellor's 18 April 1985 *Bundestag* speech? They were all met, said the Economics Minister, except that "influence over the whole architecture" would be limited because of Bonn's unofficial participation. It is surprising no one from the opposition pointed out that the government had decided against a state role before the negotiations, without dropping its "influence" condition. Bangemann's version of his success was completely contradicted by some reports.¹⁰⁴ Rather than being incorporated in the agreement, Kohl's conditions went unfulfilled. The objective of a "fair partnership and free exchange of results" was merely met by "friendly words and gracious intentions". The central "rights of use" problem was left to the discretion of the US. It was "impossible", explained CDU/CSU *Bundestagsfraktion* vice chairman Volker Rühe, for the US to give a blanket guarantee for access to spinoff. There was no mention of a "specific research area" in the agreement (nor in Bangemann's speech), thus limiting the possible accumulation of specialized expertise. "Influence over the whole project" was considered "out of the question...Bonn will be lucky to get a quick peek at the complete architecture". "The Americans" concluded one high German official, "are plainly no charity."¹⁰⁵

POLITICAL PARTY POSITIONS, THE PEACE MOVEMENT, AND PUBLIC OPINION

1. SPD

The Social Democratic opposition to SDI came as no surprise. Change in party policy since the downfall of the Schmidt government in October 1982 is most noticeable in the area of security policy. Codifying this shift from the solid Atlanticism of Helmut Schmidt to a proposed "security partnership" between East and West is the "von Bülow paper", an arguably radical departure in Social Democratic defense policy.¹⁰⁶ Addressing a myriad of security issues, the paper saved its disapproval of SDI for the last paragraph. Turning the tables on Reagan, the SPD adopted a moderate position:

We agree with the American President's concern for reinforcing freedom through change and improvement of NATO strategy. But we don't go as far as France under Charles de Gaulle nor as far as the American President with his proposal for Star Wars. We take a clearly different path. We maintain BMD research and development...will be unhelpful, as the goal of overcoming nuclear weapons through BMD appears not fully possible, will devour enormous sums, and increases tension between the blocs.¹⁰⁷

These criticisms have been repeated and expanded upon in other forums and by other leading Social Democrats. Former Chancellor Schmidt, in an open letter to Chancellor Kohl, argued that German participation in SDI would endanger the ABM Treaty without the offsetting benefits of any significant technology transfer. Europe could expect more rigid COCOM restrictions on the export of US-licensed products and therefore it was "in the interests of France, the Federal Republic, and other European states to develop advanced technologies independently of the United States".¹⁰⁸ In an address to a NATO meeting in Brussels, Hans-Jochen Vogel, SPD *Bundestagsfraktion* leader, feared that SDI might block progress in superpower arms negotiations.¹⁰⁹ Europe's top priority, according to Vogel, was a cut in INF, especially Pershing IIs and SS-20s. There is the related problem of the increased risk posed by the new short-range Soviet missiles (SS-21s and SS-23s) emplaced in the GDR and Czechoslovakia in response to the deployment of the Euromissiles. The weapons -- arguably more threatening to the Federal Republic than the SS-20's -- were not directly under discussion in the Geneva arm negotiations.

SPD opposition to BMD is not new; in addition to their disagreement with American plans for an ABM system in the late 60s, the Social Democrats have been on record against space-based weapons since their 1979 *Parteitag* in Berlin. In a May 1985 party publication, the SPD rejected SDI on the following familiar strategic grounds:

- * Nuclear war, once initiated, may be limited to Europe;
- * It may result in zones of unequal security;
- * It will weaken alliance cohesion;

- * The "conventionalization" of defense will suffer;
- * Arms control negotiations will be further aggravated;
- * The USSR will devise countermeasures and build even more ICBM's;
- * Eurostrategic systems will gain in importance;
- * Defense won't replace offense, but instead an unstable mix may result.¹¹⁰

Taking up the technological challenge of SDI by participating in it would only result in European industry "becoming an appendage of the US military-industrial complex".¹¹¹ SDI is an attempted technological solution to a political problem, according to the SPD; similar past attempts failed and will again in the future. The party urged Europe to take a common position against Star Wars and the murky US position on the ABM Treaty. The militarization of research was lamented and the improbability of much spinoff underscored; yet amongst the well-reasoned but standard political and economic arguments against SDI was a new consideration.

Citing explicit statements by Senate Foreign Relations Committee chairman Richard Lugar and former Undersecretary of State Lawrence Eagleburger that Europeans should not only inquire as to their participation in research but also about their political responsibility for development and deployment, the SPD concluded, "Whoever takes part in SDI research is also politically responsible for development and emplacement of this system".¹¹²

Trying to head off Bonn's decision to participate, Karsten Voigt, SPD *Bundestag* deputy and foreign affairs spokesman, urged Foreign Minister Genscher and the Free Democrats to join a political alliance against Star Wars.¹¹³ At the North Atlantic Assembly meeting in San Francisco, SPD *Bundestag* member Norbert Gansel roundly condemned SDI for accelerating the arms race and threatening the ABM Treaty and ongoing arms control negotiations.¹¹⁴ The Assembly voted 91 to 12 with 12 abstentions in favor of a US commitment to SDI consistent "with the provisions of the ABM Treaty and in consultation with...Alliance partners."

Social Democratic efforts against West German participation in Star Wars were, of course, to no avail. The SPD reacted sharply to Kohl's late March 1986 announcement of an agreement in principle. Von Bülow declared that the secret agreement between Bonn and Washington was "already leading to an even worse 'satellitehood'".¹¹⁵ The deputy chairman of the SPD *Bundestagsfraktion*, Wolfgang Roth, was "shocked" by the agreement. As to Bonn's conditions for participation, the Americans committed themselves "to nothing, to really nothing at all". In reference to Bangemann's role in the negotiations, Roth declared: "For the peanuts of some one hundred million marks in SDI contracts - spread out over several years - he has helped the US encroach upon the some thirty billion marks in annual trade with the Eastern bloc."¹¹⁶ Roth feared that "even firms that have nothing to do with SDI will have their exports hindered" due to disputed special clauses in the agreement designed to prevent the eastward flow of technology.¹¹⁷ Parts of the confidential agreement were released to the press. According to Vogel, "the publication of the text is a grotesque embarrassment to

the provincial negotiators".¹¹⁸ Without success, Vogel attempted to discover if, as was rumored, there existed a further secret letter from Weinberger. Later, the announcement of MBB's receipt of the first Star Wars contract under the agreement was greeted with derision. Von Bülow criticized the contract as a "*schlimmen Rosstäuschertrick*" and the contract amount of DM 8.8 million as a mere twelve percent of the value of a Tornado fighter-bomber; he described the CDU's support of participation in the "great opportunity" of SDI research as "absurd".¹¹⁹

Plans for a European Defense Initiative (EDI) did not escape Social Democratic attention. An April 1986 national committee meeting declared: "An SPD-led government would take part in neither SDI nor EDI".¹²⁰ Condemning European missile defense for many of the same reasons as Star Wars, the party leaders warned that the ABM Treaty should not be undermined by an EDI. Considering treaties a more sensible way to dismantle missiles than a BMD, the superpowers were called upon to renounce development and tests of ASAT and other space weapons. "To enforce peace with technical means is", for the SPD, "an illusion which actually endangers peace."¹²¹

2. FDP

Unlike the SPD, the co-governing Liberals had to swallow their qualms about commercial participation. Only after long quarrels did the party agree to the Star Wars negotiations and that support was qualified by the understanding that the agreement would only be a component of a larger framework for technological exchange with the US.¹²² Genscher's own misgivings and delaying tactics, and grassroots FDP opposition were bowled over by the *Realpolitik* of coalition government. Realizing the inevitability of some form of participation, Genscher assisted Chancellor Kohl by reining in Wörner after the latter's critical comments about SDI in April 1984.¹²³ Deploing the pressure to join in Star Wars research, Genscher's concerns centered around SDI's strategic conundrums, and possible charges of German complicity in undercutting the ABM Treaty. The problem of an EDI, Genscher thought, should be approached very carefully lest it revive the moribund peace movement. Considering Kohl's effusive praise for SDI at the Western powers' 1985 economic summit an intrusion on his turf, the Foreign Minister bemoaned Kohl's endorsement coming as it did while Mitterand was rejecting Star Wars. Genscher was more circumspect in his public reproof of SDI while maintaining tenacious antagonism toward it within the cabinet. Yet his determined stand buckled under the weight of events, the FDP could not prevent Federal German participation, but only influence its form through Economics Minister Bangemann.

Exactly two years after Reagan's original Star Wars speech, the FDP federal board of directors declared its position on the President's vision. The announcement of 23 March 1985 was careful not to explicitly reject SDI. However, the numerous economic, diplomatic and strategic objections and cautions raised left little doubt as to where the party stood. "The military use of space raises many questions with immense implications. All consequences require the most careful examination".¹²⁴ Noting the raging debate in Britain, France and the US, the Free Democrats urged the government to seek a common European position within the Alliance. Nodding toward special envoy Nitze's hurried assurance that the allies would be "consulted" before any American

decision to deploy a BMD, the FDP declared that the "uppermost goal of the alliance is and should remain the prevention of war...this high moral aim should not be endangered".¹²⁵ The Liberals urged the superpowers to reaffirm the ABM Treaty, called for "cooperative solutions between West and East" and for a resurrection of *détente*. Like the Social Democrats, the FDP suggested it would rather "prevent an arms race in space" and make BMD "superfluous [through] drastic reductions in nuclear weapons", than to embark upon a quest for an umbrella in the heavens.

Little changed in the party's approach to SDI when the Liberal central committee met in June. The previous position was underscored and developments noted, especially Kohl's qualified acceptance of Star Wars in his April *Bundestag* presentation. Genscher's influence was evident in the Chancellor's speech; Kohl's hesitations were voiced in virtually identical language as that found in FDP position papers. Political support was still a long way from active involvement, but the Free Democrats objected to what they considered Kohl's shortsightedness. The Chancellor restricted cabinet debate to questions of material benefit to German firms; in a symbolic protest the Liberals "rejected a narrowing of judgement criteria to the question of the expediency of technological and political participation".¹²⁶ They added the warning that the FRG should in no case be the only European country to take part, as this would loosen alliance cohesion, weaken the German position within the alliance, give the Soviets a new opportunity to accuse Bonn of "revanchism", and hinder *Ostpolitik* and hopes for *detente*. To these admonishments Genscher added, a month later at a Eureka conference in Paris, the ironic realization that Star Wars had made many Europeans "aware of something that has long been in existence, namely the technological challenge facing Europe - with or without SDI".¹²⁷

The influence of the FDP on the government's SDI policy was again apparent in December. The Cabinet decision, presumed to be the long awaited embrace of Star Wars was instead an announcement that Bonn would not negotiate a special agreement on SDI but rather approach the issue within a larger framework of technological cooperation¹²⁸ - precisely the stance adopted by the Liberals' federal board and *Bundestagsfraktion* in a joint meeting five days earlier.¹²⁹ The Cabinet decided it "does not aspire to any state participation in the SDI research program and therefore will make no public funds available for cooperative projects", and that a general framework "would improve the legal position of those German research institutes and enterprises that wish to participate as contractors in the SDI research program"¹³⁰ - verbatim from the proceedings of the FDP joint meeting. A day after the meeting Genscher presaged the Cabinet decision later in the week with the prediction that German industry would be "only minimally involved" in SDI research, because "it is primarily an American program".¹³¹ Genscher expressed concern that SDI might detract from Europe's defense and after the Cabinet announcement hinted that an agreement with the US would not be one requiring parliamentary ratification. Any agreement would be negotiated by FDP party chairman Bangemann, whose appointment as head of the negotiating team came in an "unexpected announcement" by Chancellor Kohl the day before the cabinet decision - seemingly more evidence of Free Democratic leverage.¹³²

Bangemann's long and painful bargaining with the Pentagon was brought to fruition by the personal intervention of Chancellor Kohl. [For details of the negotiating process and its result see the "Negotiations and the Agreement" section.] Kohl intervened because Bangemann was still trying to negotiate a general

framework for US-German economic cooperation, and not a specific agreement on participation in Star Wars research. Kohl reportedly preferred a pact particular to SDI from the outset but had bowed to his junior coalition partner's wishes.¹³³ Upon hearing the news of Kohl's intercession, Genscher "cursed" according to reports from his colleagues, and Bangemann "was temporarily speechless".¹³⁴ Other Free Democrats' responses ranged from party general-secretary Helmut Haussmann's, "It had been so close to being concluded, it is certainly not permissible to quickly draw it up on the troop training field"; to Liberal parliamentarian Helmut Schäfer's opinion that Kohl had contributed to the "Balkanization" of the Federal Republic.¹³⁵ Bangemann drew his party's attention to the fact that he had not been "wearing fatigues" in the Bavarian village with Weinberger - Kohl had - and that he was not to blame for the Chancellor's announcement. Responding to Free Democratic charges that Kohl's maneuver was "disastrous" (Young Liberal chairman, Guido Westerwelle) and that the announcement made no mention of firms in Berlin taking part (an FDP condition), Genscher declared that "results so far must be corrected" and that there was "still movement" on the question of Berlin. A clause allowing enterprises in Berlin to compete for contracts was for Genscher, "the litmus test of whether the agreement has a civil or military character".¹³⁶

Returning from Washington after putting the finishing touches on the agreement, Bangemann dashed off a letter, defending his role in the debacle, to the party hierarchy.¹³⁷ The general Liberal attitude was that Kohl had given away the store and that the FDP would pay for it at the polls; Westerwelle worried about "the people who will say the FDP had collapsed once again".¹³⁸ The Economics Minister took care to point out that the agreement that was signed provided for the full participation of companies based in Berlin and "the mutual exchange of science and technology"; it was only to cover SDI research and "was no decision over the production of space weapons". The US had promised to abide by the ABM Treaty (no time period mentioned) and the agreement would not cost Bonn a *Pfennig*. Bangemann stressed how he had "safeguarded the civilian character of the agreement", and prevented the state-backing and financing of Star Wars. He evidently did not define the creation of an "office of coordination" in the Economics Ministry and a similar office in the German embassy in Washington as "state backing". Yet, Olaf Feldmann, the FDP's *Bundestagsfraktion* defense expert was not satisfied. Expressing concern over "ambiguous" passages in the pact related to US control over the research results, Feldmann averred, "Should the relations in this area not develop advantageously, the agreement will have to be reexamined".¹³⁹

Foreign Minister Genscher, perhaps unconvinced by the US pledge to continue honoring the ABM Treaty, called upon the superpowers to sustain a "restrictive interpretation" of the treaty indefinitely (Gorbachev only asked that it be kept alive fifteen or twenty years). Finally, the FDP convention in May 1986 reconfirmed the party's long-held and unchanged position on SDI.¹⁴⁰ The course of events, however, required the party to address the developments of the previous year. The delegates thanked Bangemann for fulfilling a "difficult trade mission under unfavorable conditions". They still viewed the SDI agreement as but the "first step of a necessary improvement in reciprocal science and technology transfer". A new twist to the FDP's conception of Star Wars' evolution was the admonition against a "dynamic transition from research to development and then to production, giving political decisionmakers no chance of stopping the project". Regretting the inability of Europe to put forward a common SDI negotiating front, the delegates warned the party would "critically

evaluate concrete experiences, with the aim to, if necessary, redetermine its position".

3 *The Greens and the Peace Movement*

The Greens' opposition to Star Wars, like that of the SPD, was expected. But it has been the form of that opposition which has been remarkable. The "graying" of the party proceeds apace: Green analyses of SDI and EDI have rivaled those of the government in their strategic literacy. Although the Greens were certainly well-informed during the INF debacle, it was the cold professionalism of their opposition to Star Wars which distinguished it from the heady commitment of the anti-Euromissile movement in the early 80's. Indeed, the Greens' *Bundestag* research and technology specialist even went so far as to castigate the peace movement for concentrating on SDI without addressing the hazards of Eureka.¹⁴¹

This admonishment captured the essence of the present Green parliamentarians' relationship to the peace movement. Gone were the frenetic autumn days of 1983 when the Greens were in the forefront of the battle against Cruise and Pershing II. Green activism returned to the campaign against nuclear power, especially the reprocessing facility under construction in Wackersdorf and the newly completed power plant in Brokdorf. Meanwhile, peace movement organizations churned out papers examining the various possible strategic, political and economic consequences of SDI, began an anti-Star Wars newsletter and started to alert it's followers to the dangers of BMD.

Differences in tone and emphasis mark the varied peace movement approaches to SDI. Some envision the creation of a European Nuclear-Free-Zone (NFZ) rather than the construction of BMDs.¹⁴² Others see the solution in a German withdrawal from NATO and the replacement of the *Bundeswehr* by "weaponless social defense".¹⁴³ What is consistently found in these proposals is the unqualified rejection of any West German role in SDI or EDI. While anti-Star Wars protests have reportedly even occurred in Federal German military academies,¹⁴⁴ the main reason for the lack of substantial popular opposition is the missing imminent deployment of *hardware*. The tangible threat of a weapons system is the most effective agent of mobilization. It is not easy to get anyone but the most dedicated activist into the street to demonstrate against a research program, no matter what its long-term consequences. And if the US ever decides to deploy a ballistic missile defense in space, protesters might find it difficult to blockade a particle beam weapon in geostationary orbit.

An EDI is, however, another case. At this point it is unlikely that a missile defense of any sort will be deployed in the Federal Republic. If one is, whether it be the lasers proposed by MBB or an upgraded Patriot-type, it will be ground-based. An anti-tactical ballistic missile (ATBM)-capable Patriot may already be operational. One can imagine a new "double-track" decision sometime in the 1990s: the Alliance pledges to deploy an anti-tactical missile system if negotiations to correct disparities in tactical nuclear (and perhaps conventional) missiles fail. But the US and German defense establishments learned a lesson from the INF experience which is already being applied: publicity is counterproductive. The anti-Euromissile movement was awash in information about Cruise and Pershing II: dates and places of deployment and so on. Star

Wars, and especially the nascent EDI, are projects of a different order. It is a question of technology. Current US and Soviet BMD research aims to develop revolutionary weapons; the Pershing and ground-launched cruise missiles seem obsolescent in comparison.

Europe was slow to react to the challenge of SDI. 1983 was of course the "Year of the Missiles" and it wasn't until 1985 that most Europeans realized that the Reagan Administration was actually serious about Star Wars. German natural scientists were, however, quicker to respond and issued the "Göttingen Appell" after a conference in July 1984. It called upon the superpowers to renounce anti-satellite weapons and the further militarization of space. At the same time a group of concerned scientists, the "Naturwissenschaftler für Frieden", was formed. They pledged, like many of their American colleagues, not to accept SDI research contracts, and published a book critical of space weapons.¹⁴⁵ The Greens followed with their "Hagener Appell" to scientists and arms industry employees not to take part in any military space technology research or production.¹⁴⁶

After the delay in engaging the Star Wars issue, the Greens' presence in the debate grew. Their role, however, has not achieved the centrality nor urgency of their opposition to the Euromissiles. Sending penetrating inquiries to the government as to its role in SDI and EDI; making speeches on the floor of the *Bundestag*; releasing statements to the press; Green deputies have been unable to recapture the unorthodox style and crusading flair that characterized their earlier campaigns. The Greens have not, however, lost their capacity for uncovering possible connections between seemingly unrelated events. Referring to the 8 January 1985 Geneva summit declaration that Star Wars would be included in arms control talks (later taken back by President Reagan and Defense Secretary Weinberger), Green *Bundestag* member Roland Vogt commented:

A bizarre project that up to now was highly controversial even in the US has thereby, that is, by being linked to the positive value of disarmament, become respectable.¹⁴⁷

Some Greens posit ties between SDI and other programs. Schierholz includes Eureka and sees an invidious web of connections between it and the US military build-up, the new doctrines AirLand Battle and Follow-on-Forces-Attack, the speculation about EDI, and the upgrading of Patriot missiles. Just as the INF deployments were considered a part of the Reagan administration's striving for strategic superiority, research into (and for the Greens, the inevitable deployment of) ATBM systems are components in the Pentagon's quest for a first strike capability. Green parliamentarian, peace researcher and former *Luftwaffe* officer Alfred Mechttersheimer found similar connections between recent NATO and American initiatives.¹⁴⁸

The Greens' reaction to the US-German research agreement was blunt. At a special session called by the government, Economics Minister Bangemann and Research and Technology Minister Riesenhuber defended the pact before SPD and Green deputies. Bangemann, who "reacted nervously to the reproaches of the opposition", accused his detractors of "telling deliberate untruths" about the agreement. Schierholz responded by describing it as "a document of capitulation" which left but one alternative: cancellation.¹⁴⁹

4. CDU/CSU

Alfred Dregger, Christian Democratic party leader in the *Bundestag*, was one of Star Wars' earliest German supporters. According to one observer, Dregger and the CDU right wing's "assessment was that if both Moscow and the Social Democrats were adamant opponents of SDI, it must be a good project and one on which the party should take a clear pro-American line".¹⁵⁰ In a brief essay on SDI, Dregger raked the SPD over the still glowing Euromissile embers. Taunting the Social Democrats, as had the Chancellor, for "taking up Moscow-provided slogans" during the INF debate, Dregger went one step further. The SPD's denunciation of SDI and growing uneasiness with nuclear deterrence, Dregger thought, was evidence of a third option: "Who rejects both, chooses subjugation".¹⁵¹ This polemic carried over to his 18 April 1985 *Bundestag* speech following the Chancellor's qualified endorsement of SDI. Equating the firebombing of Dresden to the nuclear destruction of Hiroshima in order to take a slap at the Greens, Dregger quoted from Andre Glucksmann's argument with the German peace movement: "What does 'better red than dead' mean? Better Auschwitz than Hiroshima? Was Hiroshima worse than Auschwitz?" Rather than make a case for SDI, Dregger devoted the bulk of his address to harassing Horst Ehmke and the SPD *Fraktion*. Describing the Social Democrats as "completely isolated", condemning Ehmke for being "solely concerned with the desires of Moscow", Dregger lamented the party's departure from Helmut Schmidt's security policies.

Other CDU politicians taking part in the debate were *Fraktion* vice chairman Volker R  he and defense policy speaker Willy Wimmer. Wimmer focused on strategic issues, stressing SDI research as a response to Soviet BMD programs, alleged Soviet violations of SALT II and the tentacles of Soviet expansionism. R  he, more moderate in his criticism of the Social Democrats than Dregger, hewed to the party line on the importance of German participation in research, although he has been privately skeptical of US largesse in sharing high-technology.¹⁵² The discussion of the technological aspects of SDI intensified during the next several weeks when Bonn seemed to have to choose between SDI and Eureka although several prominent Christian Democrats denied the necessity of any such choice.¹⁵³ Over the ensuing months, the CDU pleased both the French and the Americans: they opted for both projects. Upon notification of MBB's SDI research contract, CDU/CSU *Bundestagsfraktion* foreign trade speaker Peter Kittelmann called upon German industry to "seize the chance opened for it by politics".¹⁵⁴

5. Public Opinion

During the controversy over participation in research, German public opinion on SDI remained unsettled. Star Wars never had the salience to interest large sectors of the public. Compared to the double-track decision, SDI is a non-issue. INFAS conducted two surveys of public opinion on SDI in 1985. The March poll inquired as to attitudes on participation in research. Over 60% of the respondents objected to German involvement, only 13% were in favor, and 23% made no response. The findings showed some correlation with party preference and the respective parties' positions on SDI. The parties were lumped together into two groups: governing and opposition. Some 47% of the governing party adherents rejected participation, while 28% were in favor, and 20% had no

response. Opposition party affiliates were overwhelmingly - 76% - against involvement, only 9% were for it, and 15% had no opinion. Two questions were asked in the October poll. To the question, "What, in your opinion will be the effects of SDI?", 45% replied that it would accelerate the arms race. Another 30% suggested it would have the opposite effect and result in reduced Soviet armaments, and 25% made no response. The second question was, "Should the Federal Republic participate in the technological development of SDI or not?" and "If so, should Bonn take an official role or should individual firms, if they choose to participate, do so on their own?" Interestingly, of the 28% in favor of involvement, 18% opted for a state role while 9% preferred commercial participation. Involvement of any sort was rejected by 49%, and 28% had no opinion. A connection is apparent between respondents' estimate of SDI's impact on the arms race and their position on a German role.¹⁵⁵

An Institut für Demoskopie survey of May 1985 found that 47% of respondents to a question on disarmament felt that unilateral measures could promote peace and lessen superpower tensions. Only 35% suggested that unilateral moves might lead to political blackmail or military aggression.¹⁵⁶

SUMMARY AND CONCLUSIONS

The Kohl coalition would prefer that SDI had never appeared on the political agenda. Once it had, Bonn hoped it would go away. When it did not, the Chancellor, out of loyalty to the US, gave President Reagan's vision his political support. But the Americans were not satisfied. NATO European research participation, preferably of an official sort, was deemed necessary to help procure the requested funding from Congress. Kohl assented, limiting German involvement to private firms.

Albeit too early to make a definitive assessment of Star Wars' strategic implications, predictions of radical changes in the credibility of the American nuclear guarantee and NATO strategy are unduly alarmist. Neither a full-blown SDI nor a terminal BMD would finally banish extended deterrence to the history books or prevent NATO from exercising its escalatory options. These Alliance verities will persist as long as Washington displays the necessary political will. They would not be replaced with "deterrence by denial" nor displaced by the "impotence and obsolescence" of nuclear weapons. The fear of SDI-generated instabilities in the superpower balance leading to a first strike is exaggerated. Leak-proof umbrella or not, neither superpower could rationally expect to so neutralize the others retaliatory capability that its own losses could be considered acceptable. German worries about an offense-defense arms race, however, are well-founded. It is inconceivable that either side would sit idly by while the other was proceeding with a BMD. The response would include both a reciprocal BMD effort and the hurried production of additional offensive forces. The Reagan Administration paved the way for abrogation of the ABM Treaty by its "reinterpretation" of several of its important articles and the trajectory of SDI research. American assurances of negotiating any move beyond the laboratory have not soothed Bonn's anxieties over the future of this landmark of détente. The danger of a Soviet Star Wars to the independent British and French nuclear forces is minimized by their ongoing modernizations. Penetration aids and other countermeasures should ensure the credibility of these more sophisticated arsenals as minimum deterrents - even with a robust Russian BMD - for the

foreseeable future. Effects on alliance cohesion are mixed. Restoring a measure of lost American hegemony in the Alliance in the short-term, a deployed SDI may in the long run, despite consultations and negotiations, wreak havoc because of its effects on arms control and the ABM Treaty. A decision to deploy SDI would almost certainly lead to a redirection of substantial US resources away from European conventional defense.

Federal German corporations can not expect to benefit significantly from participating in research. Estimates of little spinoff, relatively few research dollars for foreign firms, and even tighter US export restrictions combine to dash high hopes for a technological boost.

Bonn's decision to join in research resulted from a lengthy and painful process of bureaucratic and coalition politics. Pitting the Foreign and Defense Ministries against one another, the FDP against the other governing parties, and the opposition parties against everyone, the government took more than a year to move from politically endorsing Star Wars to initialing an agreement. The memorandum of understanding, described by the government as a realization of its conditions, was completed only after the personal intervention of the Chancellor. Future disputes over the commercial exploitation of research results are very possible.

The SPD, the Greens and the peace movement strongly opposed SDI and any German participation in the research. The Free Democrats, while objecting to Reagan's vision, were forced by coalition realities to consent to involvement. They had a level of influence on the decision to join, the Chancellor's stipulations, and the negotiations out of all proportion to their electoral support. The right-wing of the CDU/CSU was as excited about SDI as conservatives in the US. More moderate Christian Democrats were less enthusiastic than their party brethren, and more sensitive to the concerns raised by the opposition. The two INFAS surveys so far reveal only limited support for German participation and the thesis that SDI will reduce Soviet arms.

NOTES

- 1 See Gregory Treverton, "The Year(s) of SDI", German Studies Newsletter, Center for European Studies, Harvard University, No. 6, November 1985, p. 3. The English and German texts of Reagan's 23 March 1983 speech are in Star Wars Quotes compiled by the Arms Control Association (Washington, 1986) and Reiner Labusch, Eckart Maus and Wolfgang Send, eds. Weltraum Ohne Waffen (Munich: C. Bertelsmann Verlag, 1986). The terms "Star Wars" and "SDI" will be used interchangeably.
- 2 By "maximal version" I mean the several layer space-based ballistic missile defense system first proposed (and continually supported) by President Reagan. SDI advocates have since generated scaled-down versions for technical, economic and political reasons.
- 3 See "SDI: Fakten und Bewertungen, Fragen und Antworten, Dokumentation" (Bonn: Bundesministerium der Verteidigung, June 1986), p. 8.
- 4 See for example, Christoph Bertram, "Strategic Defense and the Western Alliance", Daedalus, Vol 114, No. 3 (Summer 1985). p. 294.
- 5 See the excerpts from Caspar Weinberger's speech in Bonn, 5 December 1985, in "SDI: Fakten...", pp. 47-48.
- 6 Alastair Buchan, "Western European Reactions to BMD", Hudson Institute Discussion Paper, 24 June 1966, p. 4; quoted in Bertram, "Strategic Defense...", p. 287.
- 7 Bertram, "Strategic Defense...", p. 288.
- 8 See Thomas Risse-Kappen and Hans-Joachim Schmidt, "SDI, Taktische Raketenabwehrsysteme und die Bundesrepublik", Friedensforschung Aktuell, Vol. 12, (Summer 1985), p. 2.
- 9 See Jan Lodal, "Deterrence and Nuclear Strategy", Daedalus, Vol. 109, No. 4 (Fall 1980), p. 171.
- 10 See especially, John J. Mearsheimer, "Why the Soviets Can't Win Quickly in Central Europe", International Security, Vol. 7, No. 1 (Summer 1982); and F.W. von Mellenthin and R.H.S. Stolfi with E. Sobik, NATO Under Attack: Why the Western Alliance Can Fight and Win in Central Europe Without Nuclear Weapons (Durham, N.C.: Duke University Press, 1984).
- 11 For an overview of Soviet BMD efforts, see John Pike, "Assessing the Soviet BMD Program", in E.P. Thompson, ed., Star Wars, (New York: Pantheon, 1985), pp. 50-67.
- 12 See his article in Zeitschrift Für Politik, No. 1 (1985); cited in Risse-Kappen and Schmidt, "SDI, Taktische...", p. 6.

- 13 Bertram, "Strategic Defense...", p. 284.
- 14 Quoted in Wolfram F. Hanrieder, "Arms Control and the Federal Republic of Germany", in Hanrieder, ed., Technology, Strategy & Arms Control (Boulder, CO: Westview, 1986), fn. 7, p. 63.
- 15 See Yost, "Ballistic Missile Defense...", p. 146.
- 16 Ballistic Missile Defense Technologies, U.S. Congress, Office of Technology Assessment, OTA-ISC-254 (Washington, D.C.: Government Printing Office, September 1985), p. 15.
- 17 US News and World Report, 21 September 1981, p. 54; quoted in Yost, "Ballistic Missile Defense...", p. 154.
- 18 Lodal, "Deterrence and Nuclear Strategy", p. 171; quoted in Yost, "Ballistic Missile Defense...", p. 154.
- 19 Quoted in Treverton, "The Year(s)...", p. 3.
- 20 See Charles Mohr, "US Anti-Missile Defense is Affordable Study Says", International Herald Tribune, 24 July 1986, p. 3; see also "1.6 Billionen Mark für SDI", Frankfurter Rundschau, 24 July 1986, p. 1.
- 21 See Elizabeth Pond, "SDI and NATO: word of caution from Rogers", Christian Science Monitor, 22 March 1985.
- 22 Treverton, "The Year(s)...", p. 6.
- 23 Wolfgang Schreiber, Die Strategische Verteidigungsinitiative Forschungsbericht No. 45, Konrad-Adenauer-Stiftung, (Melle: Ernst Knoth, 1985), p. 143.
- 24 See Judith Miller, "West Europeans, Some With Doubts, Support 'Star Wars'", New York Times, 30 December 1985, p. A1.
- 25 Ian Davidson, "The Selling of Star Wars", Financial Times, 17 February 1986.
- 26 See Klaus Broichhausen, "Disagreement on commercial potential of SDI research", Frankfurter Allgemeine Zeitung, 11 June 1985; reproduced in German Tribune, 23 June 1985, p. 8.
- 27 See Bernd W. Kubbig, "Zivilen Nutzen Schaffen Mit Raketenabwehrwaffen? Technologie - und industriepolitische Aspekte der SDI Diskussion", Forschungsbericht, (a publication of the Frankfurt Peace Research Institute), March 1986.
- 28 Quoted in David A. Brown, "European Industry Begins to Seek SDI Contracts", Aviation Week & Space Technology, 16 December 1985, p. 12.
- 29 My call to MBB headquarters in Munich met with the response, "No public comment".

- 30 See Michael Lucas, "SDI and Europe", World Policy, Vol. 3, No. 2, (Spring 1986), p. 224.
- 31 Quoted in E.P. Thompson, "Folly's comet", in Thompson, ed., Star Wars, p. 120.
- 32 See "Erster SDI-Auftrag für Messerschmitt-Bölkow", Frankfurter Allgemeine Zeitung, 14 July 1986, p. 11. The contract holds out the possibility for an additional \$35 million.
- 33 John Tagliabue, "European Companies Winning Quiet Battle for SDI contracts", International Herald Tribune, 7 August 1986, p. 1.
- 34 Quoted in Thompson, Star Wars, p. 120.
- 35 Tagliabue, "European Companies...", p. 12.
- 36 See "Das geht an die Schmerzgrenze", Der Spiegel, No. 13, 24 March 1986, p. 164.
- 37 John Pike, "Barriers to European Participation in the Strategic Defense Initiative", Statement to the Subcommittee on Economic Stabilization, Committee on Banking, Finance and Urban Affairs, House of Representatives, 10 December 1985; cited in Lucas, "SDI and Europe", p. 225; and Kubbig, "Zivilen Nutzen...", p. 79.
- 38 Tagliabue, "European Companies..."
- 39 "Congressional Critics Question British Involvement with SDI", Aviation Week and Space Technology, 16 December 1985.
- 40 Ibid.
- 41 Kubbig, "Zivilen Nutzen...", p. 1.
- 42 Quoted in Miller, "West Europeans, Some With Doubts...", p. B9.
- 43 Ibid.
- 44 "Report of the Ad Hoc Committee on the Potential Benefits to US Industry from SDI/IST Scientific Program", IDA Memorandum Report M-110 (Alexandria, VA: Institute for Defense Analysis, November 1985), p. 9; cited in Lucas, "SDI and Europe", p. 222-3. For a one-page summation of SDIO's estimation of civilian and military spinoff areas, see "Benefit to Industry and Tactical Forces From SDI Innovative Science and Technology Programs", Congressional Record, 12 June 1985, p. E2709f, in Kubbig, "Zivilen Nutzen...", p. 124.
- 45 Kubbig, "Zivilen Nutzen...", p. 46.
- 46 Quoted in "Congressional Critics Question..."; See also Alice Tepper Marlin and Paula Lippin, eds., The Strategic Defense Initiative: Costs, Contractors & Consequences (New York: Council on Economic Priorities, 1985).

- 47 Miller, "West Europeans, Some with Doubts...", p. 89.
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