"The JCS believe that we must ensure that hedges and safeguards related to the INF Treaty are preserved as we move forward with the START process."

Overall, programs of this type are strongly supportive of NATO's need to improve its force posture. The traditional and lingering question remains, however: whether NATO Europe is collectively prepared to move from common R&D to the more expensive business of acquiring and deploying weapon systems required by the common defense.

U.S. Contributions

As a leader of the alliance, the United States likewise must seriously address the crucial issues confronting NATO, and there is no better time than now as we implement the INF Treaty.

As I pointed out earlier, the JCS have been dissatisfied with the NATO force balance for several years. Admittedly, we have made considerable improvement in our posture since the late 1970s, and we know that these steps have reinforced uncertainties in the minds of Kremlin planners. But the Soviets continue to run fast and to attempt to match our efforts. While the Chiefs strongly endorse the INF Treaty, you should not conclude that they will be satisfied after that accord is implementedit speaks only to a slice of their overall concerns.

What the Chiefs prefer, of course, is to develop an integrated concept for the future that strengthens all of NATO, lays out a course for our representatives to pursue in alliance councils, guides U.S. investment strategy, and receives the strong support of the Congress. We are working hard to bring together such a concept in the Pentagon now.

That is the central thrust of recent work by OSD [Office of the Secretary of Defense] on "Long-Term Competitive Strategies," a concept designed to get the most out of our acquisition process.

Secretary Carlucci's report to Congress on Support for NATO Strategy in the 1990's clearly notes that competitive strategies is not a substitute for NATO Conventional Defense Improvements (CDI). The allies must move forward to correct critical deficiencies in infrastructure, munitions, C^3 , sustainability, and a number of other areas. We intend to continue to press our NATO friends to see the CDI through to completion. Still, the two efforts have one thing in common. Both call for the exploitation of new technologies to blunt the initial attack and counter follow-on forces of the Pact.

Conceptually, the "Competitive Strategies" effort first addresses Soviet plans for overrunning NATO-the initial air offensive, the rapid penetration of our forward defenses, and the central coordination of forces massed for the seizure of large chunks of allied territory. These concepts are the heart of current Soviet military strategy. They also point to endemic weaknesses on the Soviet side and to new technologies which can be used effectively to exploit these weaknesses and disrupt the Soviet timetable of attack.

Overall, the proposed solution relies heavily on conventional high-accuracy stand-off missiles and supporting battlefield and rear area surveillance capabilities (great similarity to Follow-On Forces Attack). Many of the proposed missile systems can be found in present cooperative research programs of NATO, and a number of the battlefield surveillance systems are well along in the U.S. development program.

Concurrently, the JCS believe it is essential to press forward with nuclear modernization efforts launched by the 1983 Montebello decisions and currently in progress. For the most part, the Chiefs have been focusing on dual-capable systems permitted by the treaty, for example:

•A tactical missile system (follow-on to Lance), with possible adaptation of the Multiple Launch Rocket System, and Artillery-Fired Atomic Projectiles; plus

•A tactical air-to-surface missile (TASM) to enhance the effectiveness of dual-capable aircraft and provide greater survivability.

Again, many of these systems build upon common R&D efforts, examples of which were cited earlier in my statement. Depending upon warhead selection, these weapons can be used as theater nuclear forces, or to strengthen conventional units, or both.

Likewise, the JCS are examining in conjunction with their NATO counterparts

the in-theater disposition of our Europeanbased forces, which are not covered by the INF Treaty, to see if these force dispositions make sense in the light of new circumstances.

Overall, we are trying to get as much deterrence and defense as possible for NATO out of technologies embedded in the coalition's ongoing programs-essentially mature technologies which can be fielded over the next few years.

Everyone must understand, however, that given the dynamic and fragile nature of deterrence, military risks are related more directly than ever to time in the acquisition process. We cannot afford business as usual.

Conclusions

To put all of this into perspective: •The JCS have unanimously concluded that, on balance, this treaty is

militarily sufficient and effectively verifiable. In turn, they believe that this accord is in the best interests of the United States and its allies and strongly recommend its ratification by the U.S. Senate.

•At the same time, it is important to underscore the consequences of not ratifying this treaty. As Secretary Carlucci observes in his statement, we could expect to see a continued buildup of Soviet intermediate- and shorter-range missiles in Europe and Asia, deployment of the already tested SS-20 follow-on missile and the SS-X-4 ground-launched cruise missile, and further momentum in fielding the recently introduced SS-23. Certainly, that would be a step backwards in the arms control process and in trying to reach asymmetrical reduction agreements which will enhance rather than degrade U.S. and allied security.

•While beneficial to the alliance, the INF Treaty will not correct other imbalances confronting NATO, particularly in the case of short-range missiles, conventional forces, and chemical warfare. The United States and its allies must move forward in a timely fashion to complete yesterday's work and prepare for the future. If precious time is allowed to slip away, NATO could end up with neither a credible deterrent nor à viable defense. Conversely, if this time is used wisely and productively, I am confident that the United States and its allies can achieve four objectives stressed in the President's Report on National Security Strategy: narrow the gap in conventional capabilities, enhance deterrence, raise the nuclear threshold, and reduce the risk of Soviet miscalculations.

Elimination of Chemical Weapons: Is Agreement in Sight?

Charles C. Flowerree

he effort to achieve agreement on a convention to rid the world of chemical weapons, which for nearly two decades has moved at a languid pace-when it has moved at all-seems at last to have gained noticeable momentum. During the past year, negotiators laboring under the auspices of the little publicized 40-nation Conference on Disarmament (CD) in Geneva have succeeded in resolving or narrowing differences on many of the military-technical issues which but a short time ago seemed to present insuperable obstacles to the conclusion of a worldwide convention. Significant strides have been made in elaborating a "rolling text," that is, the text of an agreement that from session to session is being expanded, refined, and improved upon.

The importance of this effort rests on several considerations. As a consequence of the development of supertoxic chemical agents and improved means of delivery, there is heightened concern about the chemical warfare (CW) threat in future conflicts. The existence of a major Soviet CW capability is of particular concern to the population of Western Europe, but the relative ease and modest cost of developing a chemical warfare capability has widened the scope of the threat to world-wide dimensions. Reportedly at least 15 countries now possess these weapons of mass destruction. The 1925 Geneva Protocol, which bans the use of chemical weapons, but not their manufacture or stockpiling, unfortunately has no teeth. During World War II the combatants found it in their mutual interest to observe the protocol. Since then, however, there have been several instances of reported use, the most recent being by Iraq in its war with

Charles C. Flowerree had extensive experience with multilateral and bilateral efforts to ban chemical weapons while serving as chief of the International Relations Division of the Arms Control and Disarmament Agency, 1977-1979, and as U.S. representative to the Committee (now Conference) on Disarmament in 1980 and 1981. He retired from the Foreign Service in 1982.

"A complete ban on an undertaking as exists in the entire made even more difficult by the fact that it is being negotiated in a 40-nation forum."

Iran. Many of the adherents to the protocol, including the United States and the Soviet Union, have reserved the right to respond in kind to a chemical weapons attack. These various considerations have led to the recognition that the only insurance against the use of chemical weapons in future conflicts is their complete elimination under strict international control.

Agreement on Basics

For some years now there has been general agreement on the basic outline of a multilateral CW convention. Briefly, it would prohibit the development, production, acquisition, possession, transfer, or use of chemical weapons as these are defined by the treaty; all such weapons would be destroyed and production facilities would be eliminated. States party to the convention would be required to declare their CW stocks and production facilities and present plans for getting rid of them. Verification of compliance with the provisions of the treaty would be entrusted

chemical weapons is about as complicated field of arms control,

to an international authority that would be responsible for the proper functioning of the treaty regime and provide the mechanisms to ensure compliance with it.

How to put flesh on this skeletal outline has absorbed the energies of generations of negotiators. A complete ban on chemical weapons is about as complicated an undertaking as exists in the entire field of arms control, made even more difficult by the fact that it is being negotiated in a 40nation forum. Even if agreement could be reached on all the elements of a convention, the task of eliminating existing weapons and production facilities would take some 10 years. A world-wide convention would also require continuous monitoring of one of the world's basic industries. Mankind has become enormously dependent on an infinite variety of chemicals, some of which are intrinsically highly toxic, or even lethal (tragically demonstrated at Bhopal). Even the most deadly nerve gases have beneficial uses in small quantities for research purposes. Keeping production, distribution, and use of these dangerous chemicals under control while preventing military applications is a daunting proposition.

As of the beginning of 1988, the Geneva negotiators had succeeded in elaborating general provisions covering many of the major elements of the basic outline of the convention. Appropriate language has been incorporated in the "rolling text," but bracketed words and phrases signifying lack of consensus still abound in some areas and many details remain to be worked out. A summary of agreed elements follows:

• The convention shall apply to virtually all toxic chemicals. Whether herbicides or riot control agents ("tear gas") are to be included has not yet been decided. Also covered are precursors (chemical reagents that take part in the production of a toxic chemical in the manufacturing process or serve as a key component of binary chemical weapons) and munitions and equipment designed to deliver chemical weapons.



Western observers examine a chemical weapons display at the Soviet military base at Shikhany in October 1987. The exchange of visits to U.S. and Soviet CW sites indicates a climate of increased openness which helps negotiations.

• Each party will be required to make a declaration within 30 days of the convention's entry into force stating whether it has chemical weapons, giving specific data on the quantity and location of its stocks and a detailed inventory of its declared weapons. In addition, parties are required to report any weapons of another state that may be on their territory and any transfers or receipts of chemicals covered by the convention.

• Any state possessing chemical weapons must submit a plan for their destruction to the international authority. Destruction would begin within one year of entry into force and be complete within 10 years. The process would be subject to immediate verification by on-site inspection and would be subject to continuous monitoring by the international authority.

• Declarations would also be required for production facilities within 30 days of entry into force. Such facilities would have to cease production immediately and parties would be required to report actions they have taken to render plants inoperable, to be completed within three months, and submit plans for their eventual elimination. Some plants might have to be utilized for the destruction of weapons, but after 10 years all would have to be eliminated. The process of eliminating production facilities would be subject to onsite verification by the international authority. • Within 30 days and then annually, parties would have to declare certain chemicals specified in the convention that they have on hand or may be producing for purposes not prohibited, such as toxic chemicals used in medical research or treatment. Stocks of such chemicals are not to exceed 1,000 kilograms, and annual production is limited to a single small-scale facility subject to continuous monitoring.

• For key precursor chemicals, largevolume production of commercial chemicals with CW potential and certain other toxic commercial chemicals, parties must furnish specific data such as initial and annual production. Verification would be accomplished by data analysis except for key precursors which will be subject to immediate systematic inspection.

• The international authority responsible for the proper functioning of the convention will be composed of: (a) a consultative committee, the principal organ, on which each state party to the treaty would be represented and which would meet annually or in special session as required; (b) an executive council of limited membership (perhaps 15) chosen from among the parties which would oversee on a continuous basis the implementation of and compliance with the provisions of the convention; it would maintain records, make reports to the consultative committee and propose the establishment of subsidiary bodies as necessary; and (c) a

technical secretariat which will carry out the day-to-day activities necessary to ensure compliance, including conducting inspections and serving as the point of receipt for reports or complaints lodged by one party against another.

In some respects the permanent elements of the international authority might be thought of as a kind of International Atomic Energy Agency (IAEA) for chemical weapons, but there are marked differences in their functions. The IAEA, which has broad responsibilities in the entire field of nuclear energy, took on the application of mandatory safeguards to nuclear fuel cycle activities under the Nonproliferation Treaty as an added function. The relationship of the international authority under the CW convention to the chemical industry as a whole would be more circumscribed, but it would have major monitoring and inspection functions in certain sectors and, unlike the IAEA, it would be involved in the application of treaty provisions to existing weapons.

Progress on Verification

While there is general agreement on the shape of the international authority, many issues relating to the distribution of power among its components and their specific factions, as well as how decisions will be made and how the body will be financed remain to be resolved.

Attached to the "rolling text" are annexes which, inter alia, spell out in detail (a) what kinds of data will be needed concerning CW stocks, production facilities, and transfers or receipts of specified chemicals; (b) measures for destroying stockpiles of munitions and rendering production facilities inoperable; and (c) measures for conducting systematic monitoring of chemical weapons production facilities and the single small-scale facility allowed by the convention for producing chemicals identified as CW agents for peaceful purposes. Also included in the annexes are three provisional lists of chemicals to be subject to special monitoring regimes.

Given the sweeping nature of the proposed CW regime, there are a number of unanswered questions on how the agreement will be enforced. One important topic on which there is as yet no agreed language is the conduct of on-site inspections on challenge. This question has been a worrisome one for some time and was highlighted when the United States introduced its text of a draft convention in 1984. The U.S. concept, known as "mandatory on-site inspection," is that whenever a state party or group of parties detects an activity that might be construed to be a violation of the convention, the state on whose territory the activity is taking place would be obliged to permit a prompt, internationally conducted on-site inspection to determine whether a violation has indeed occurred. Initially this proposal was considered a sure-fire recipe for blocking progress in the negotiations-a close spiritual cousin of the "zero option" for intermediate-range nuclear missiles which was viewed in the same light when it was first proposed. Now, however, the principle has been accepted by the Soviet Union and the majority of the countries involved in the negotiations. China and India are the two most prominent delegations that so far have not agreed in principle.

While the "rolling text" does not treat mandatory on-site inspection, the working group charged with developing agreed language has discussed it in considerable detail. A possible approach was outlined by the group's chairman in a report to the Conference on Disarmament (CD) in August 1987:

• A request for an on-site inspection should be submitted to the head of the technical secretariat with supporting details;

• The state party being challenged would be notified immediately and a team of inspectors dispatched as soon as possible. (Some have proposed 24 hours from receipt of a request to arrival on site.);

• The challenged state—delicately referred to as the "requested state" in the draft—would be obliged to cooperate with the inspectors on means of conducting the inspection in a manner that would protect sensitive installations or objects not related to chemical weapons.

Several alternatives have been proposed for handling situations in which the inspectors and the state being inspected cannot reach agreement on these arrangements, but this remains a problem on which there is no consensus. There is general agreement, however, that the investigation should be completed within a fixed deadline and that the report (which would be made available to the executive council, the requesting state, and the requested state) should be strictly factual and contain only directly relevant information.

Given the many complexities of verification, the parties will have to work out detailed provisions on points agreed in principle, particularly with regard to inspection procedures. The possibility that violations might take place in locations that have not been declared presents some thorny problems. In some circumstances the ability to monitor such activities would not be great. A high degree of openness by all participants is of obvious importance in this regard.

It is evident that the remaining problems concerning verification, that bugaboo of all arms control negotiations, are not inconsequential. Nevertheless, the progress that has been made during the past year is impressive.

Improved U.S.-Soviet Relations

A less tangible but nonetheless significant development has been the improvement in the atmosphere surrounding the negotiations. In addition to the general easing of East-West tensions in the past months, there have been the visits of Western and other negotiators to view Soviet standard chemical munitions at the facility at Shikhany, Russia, followed by a Soviet visit to Tooele, Utah, where they saw standard U.S. chemical munitions and a CW destruction facility. The Soviets have now promised that experts will be invited to see the specialized facility for destroying chemical weapons under construction at Chapayevsk. These visits seem to provide little information that was previously unknown to either side, and in the case of the Shikhany visit, have raised some questions. They have, however, contributed to a climate of greater openness.



U.S. Army soldiers in full chemical/biological protection gear advance through a smokescreen simulating a chemical attack during exercises in West Germany.

Recently the Soviets, as another gesture of openness, announced that their stockpile of chemical weapons "does not exceed 50,000 tons in terms of toxic substances." This announcement, however, has been met with skepticism in the West. It gives no indication of whether this is a figure for filled munitions or is supposed to apply to the entire quantity of chemical agent in the Soviet inventory. In order to verify the figure, more information would be needed, including stockpile location.

An important development in Geneva has been the resumption of consultations between the U.S. and Soviet delegations. In the late 1970s, the United States and the Soviet Union engaged in bilateral negotiations with the objective of completing an agreed draft treaty that would then be submitted to the CD for review and the adoption of such proposed modifications as might achieve consensus. These bilateral negotiations were suspended after the 1980 session. In recent years, however, with the CD undertaking full-scale negotiations, the two delegations have been meeting regularly to attempt to iron out disagreements and to work on problems of mutual concern. Among the subjects that have been discussed is the exchange of data between the United States and the Soviet Union even before the convention is signed, as a means of building confidence. The two delegations are also working on a regime to govern the destruction of CW production facilities.

"Naturally, sovereign nations, especially those with significant chemical industries, are concerned about how the proposed international authority with its broad mandate would operate."

National Security and the CW Regime

While the military-technical problems standing in the way of an agreement now seem to be less intractable, a panoply of difficult issues of a political and commercial nature hover over the entire exercise. Some of them have only recently begun to be reflected in the positions taken by countries involved in the negotiations. As has been said about the hangman's noose or a 500 point drop in the Dow, a shift in the prospects for an arms control agreement from a theoretical possibility to a real one tends marvelously to focus the mind-in the case of the CW negotiations, collective governmental and commercial minds. Both get skittish over the specifics of proposed arrangements for international supervision of segments of the chemical industry.

Naturally, sovereign nations, especially those with significant chemical industries, are concerned about how the proposed international authority with its broad mandate would operate and what voice they would have within its structure. And how is a new international organization of such substantial proportions to be financed?

Another type of political concern is the broad question of how to bring all CWcapable nations under the convention. Other issues have to do with the special concerns of individual countries or groups of countries. Some, France for example, worry publicly about how their security would be assured during the long period when weapons are in the process of being destroyed but when certain countries would still have substantial stocks on hand. Perhaps, they say, states with smaller arsenals should not be required to begin destruction until the larger powers have reduced their stocks to a lower level. Pakistan has raised the issue of assistance to countries threatened with the use of chemical weapons and has proposed the inclusion of appropriate language, perhaps along the line of Article VII of the Biological Weapons Convention. This article reguires that parties to the convention provide assistance to any party which so requests when the United Nations Security Council decides that a party has been exposed to danger as a result of violation of the convention. Peru and Brazil have put forward ideas aimed at incorporating a provision for economic assistance for the development of the chemical industry in nonaligned or neutral states. Such a provision would be analogous to that found in Article IV of the Nonproliferation Treaty which contains a pledge by the signatory states in a position to do so to assist the developing areas of the world in the application of nuclear energy for peaceful purposes. These kinds of questions are not principally of an East-West nature but involve many interested nations, all of whom are sensitive to matters touching on their jealously guarded sovereignty.

Chemical Industry Concerns

The chemical industry world-wide is equally concerned about the constraints that a CW convention of sweeping scope will place on its mode of operation. This concern is mitigated, however, by the fact that the industry in recent years has become accustomed to a degree of control imposed by national and international environmental regulations. Moreover, in the United States the government has been consulting with industry about the negotiations for over 10 years.

A heartening development is the active role that chemical industry representatives in other countries have begun to take in helping to develop measures that will ensure effective verification without unduly burdening the industry. An informal meeting of industry experts and negotiators was held in Geneva last July. In late January of this year, experts from the chemical industry and manufacturing associations of Western Europe, Japan, and the United States met in Zurich to review the status of the Geneva negotiations and to identify areas in which industry could offer advice. The participants agreed to draft papers suggesting approaches on such issues as:

• The protection of confidential business information;

• Protocols for inspection;

• Data-reporting methodologies for commercial chemicals covered by the convention;

• Technical requirements for an international inspectorate; and

 Monitoring devices and techniques. Only a small proportion of the nations

which might become parties to a chemical weapons convention would be directly affected by its military aspects, but all would be affected in some way by monitoring provisions for the chemical industry. Thus whether an effective world-wide convention emerges from the Geneva deliberations will depend in large measure on the willingness of nations to accept and support not only strict verification measures on the military side but also a significant measure of international oversight of the global chemical industry.

A Low U.S. Priority?

A word about the United States and the effort to achieve a ban on chemical weapons. In Geneva U.S. delegations have played a prominent role in providing the framework for the convention as well as specific treaty language and have made vital contributions on technical matters. In Washington, however, chemical weapons arms control has been given a low priority and, not surprisingly, there is a good deal of foot-dragging in military quarters. These factors have contributed to a widespread impression in Geneva that for all its involvement there, the U.S. government does not really have its heart in the exercise. If this is not the case, the administration ought to be demonstrating it by devoting more attention to the negotiations both in its public posture and behind the scenes and perhaps by providing more resources to the search for solutions to some of the verification problems.

Most informed observers believe that completion of a convention along the lines of the one now being negotiated would probably take on the order of two years, and its achievement would be widely regarded as something of a minor miracle. Still, what has been accomplished during the past year has made a world-wide ban on chemical weapons look a good deal less like an impossible dream. ACT

Matthew Bunn

The Reagan administration's Star Wars end run on the Antiballistic Missile (ABM) Treaty has been temporarily beaten back. In the defense authorization act, Congress has limited testing of the Strategic Defense Initiative (SDI) to those tests described by the Defense Department as within the bounds of the traditional interpretation of the treaty through fiscal year 1988. For the moment, the administration cannot move to implement its "broad" interpretation of the ABM Treaty, which would allow unlimited testing of exotic-technology Star Wars systems.

Unfortunately, this victory over the broad interpretation is threatened by the administration's twisting of the traditional view. By stretching ambiguities in the treaty's language, the Defense Department is attempting to justify tests that press far into grey areas. A strong case can be made that some of the tests currently planned are likely to violate a reasonable reading of the traditional interpretation of the treaty. Other planned tests, while complying with the letter of the treaty, are clear efforts to circumvent the agreement's intent, undermining the effectiveness of the treaty regime. If the United States justifies such tests by making unverifiable distinctions and exploiting loopholes, we will have no grounds for complaint when the Soviet Union does the same, and we will ultimately lose the security benefits provided by the ABM Treaty. To clarify the compliance issues raised by SDI's current plans, this analysis will describe the major past and planned SDI tests that may affect the ABM Treaty regime.

Matthew Bunn is a senior research analyst at the Arms Control Association. This paper is based on information available as of early March 1988, and precedes a more extensive analysis that will include additional information from the 1988 SDIO Report to Congress.

The author would like to thank Sidney Graybeal, Spurgeon Keeny, Herbert Lin, John Pike, Wolfgang Panofsky, John Rhinelander, Sandy Thomas, and Peter Zimmerman for their comments.

"Some currently tests are likely to Treaty."

The Treaty's Terms

The ABM Treaty allows full-scale development and testing, and even limited deployment, of fixed land-based ABMs, but it bans all development, testing, and deployment of "sea-based, air-based, space-based, or mobile land-based" ABM systems and components. It also bans testing of any non-ABM system or component (such as an air defense missile or an antisatellite weapon) "in an ABM mode," or giving such systems an ABM capability. To clarify what is permitted, the

Defense Department has divided legal ABM R&D activities into three categories: Category One. Research of all types is permitted, including laboratory testing. During the ABM Treaty negotiations, neither side believed that research should be cut off, or that limits on research could be adequately verified. The U.S. definition of the line between permitted "research" and prohibited "development," based on the negotiating record, was provided by chief negotiator Gerard Smith during the ABM Treaty ratification hearings in 1972. In essence, development begins at the point when a "prototype or breadboard model" of an ABM component leaves the laboratory and is ready for "field testing." A "breadboard" is an experimental version of a component that performs the essential functions to be tested, but may have a dif-

Star Wars Testing and the ABM Treaty

planned Star Wars violate a reasonable reading of the ABM

ferent physical configuration than the final, fully developed component.

For some years after President Reagan's Star Wars speech in 1983, the Soviet Union claimed that the ban on development of space-based ABM systems applied even to research, despite then-Minister of Defense Andrei Grechko's statement in 1972 that the ABM Treaty "places no limitations" on research. More recently they have returned to a position similar to the traditional U.S. approach.

Category Two. Testing and development of equipment other than ABM "systems" and "components" is also permitted. Article II of the ABM Treaty defines ABM systems as systems "to counter strategic ballistic missiles or their elements in flight trajectory," and lists then-current "components" of such systems as including ABM interceptor missiles, ABM launchers, and ABM radars. Thus, there are no limits on other ABM-related equipment such as computers and power supplies.

An interceptor missile, launcher, or radar is counted as an ABM componentrather than, for example, an air defense missile-if it is "constructed and deployed for an ABM role, or of a type tested in an ABM mode." The term "tested in an ABM mode" was defined in a 1978 Agreed Statement: in essence, an interceptor missile is "tested in an ABM mode" if it attempts to intercept a strategic ballistic missile or a test target with a similar trajectory; a radar is "tested in an ABM mode" if it tracks and guides an ABM interceptor, or tracks strategic ballistic missiles while another radar is guiding an ABM interceptor.

New technologies "based on other physical principles" are considered ABM components if they are "capable of substituting for" ABM interceptors, launchers, or radars. Thus, a laser that could destroy a missile at long range (and thus "substitute for" an interceptor) would be covered by the treaty, while less powerful lasers would not. Unfortunately, this "capable of substituting for" concept is inherently im-

What Next For Arms Control?

Building on the Achievement. With the signing of the INF Treaty, the Reagan administration has taken a positive step for arms control and has the opportunity to achieve an historic agreement on strategic arms reductions. A broad agenda of other important issues faces this-and the next-administration, including conventional forces in Europe, chemical weapons, a nuclear test ban, and nonproliferation.

Protecting the Antiballistic Missile Treaty. Amid these hopeful developments, the Reagan administration is still pursuing its campaign to revise the ABM Treaty to facilitate early deployment of a strategic defense system. The "broad" interpretation would lead to the immediate erosion and eventual collapse of the ABM Treaty, the cornerstone of arms control, and would prevent further progress on strategic arms reductions.

Keeping the Arms Control Vigil. During the crucial coming months, it will be important for arms control supporters to keep a careful watch over developments. The Arms Control Association carefully analyzes unfolding events in all areas of arms control, and disseminates this information through its press and public education programs.

YOU CAN HELP. As a member of ACA, you will receive Arms Control Today, the monthly journal that gives comprehensive coverage of developments in this vital field. And best of all, you can support ACA's work and play a more effective role in the current debate.

oin the Arms Control Association

Use the convenient mailer inside to renew your membership or to become a new member.

Volume 18, Number 3

April 1988 Arms Control Today

ABM Treaty Compliance: Star Wars Tests on Shaky Ground Matthew Bunn

Testimony by JCS Chairman William Crowe

Proliferation Politics Reviews by Myron Kratzer and Warren Donnelly

CW Arms Control: Is the Chemistry Finally Right? Charles C. Flowerree

A Publication of the Arms Control Association

ACA

\$3.00

******* Four Stars for the INF Treaty