

THE CHEMICAL WEAPONS CONVENTION: THE RUSSIAN DESTRUCTION PROBLEM

Issue (early 1993):

Should the United States, in concert with other Western countries, adopt a more aggressive policy toward the destruction of former Soviet chemical weapons to ensure that Russia can implement its obligations under the CWC?

Options:

- (A) Continue the current policy of providing a modest amount of funds to help develop plans for the destruction of Soviet chemical weapons but assume that Russia will design, construct, and fund the destruction program largely on its own.
- (B) Seek to put the Russian destruction program on a faster track by securing immediate and substantial Western technical and financial assistance, coordinated through the G-7 industrialized countries.

Background/Discussion:

Under the CWC, Russia will be required to destroy 40,000 metric tons of former Soviet chemical agents beginning 2 years and ending 10 years after the convention enters into force, which is expected in early 1995.¹ The convention provides for a possible five-year extension of the final destruction deadline if a party encounters difficulty meeting its obligations. Such an extension must, however, be approved by a two-thirds majority of the other parties to the Convention.

Various plans for the destruction of the Soviet chemical weapons have been developed, but neither the Soviet nor the Russian parliament has been willing to decide where or how to destroy the stocks or to provide the necessary funding. Progress on the issue has been blocked by a variety of political, technical, and economic problems. Six years after the Chernobyl nuclear accident, public confidence in the ability of the government safely to destroy large quantities of highly toxic substances remains low. In 1989, public opposition to the chemical weapons destruction program prevented the Soviet Union from beginning to operate a destruction facility constructed at

¹ The June 1990 agreement by the United States and the USSR on the reduction of chemical weapons contains an equivalent destruction schedule.

Chapayevsk on the Volga River. Today, the "not in my back yard" syndrome threatens Russian plans to construct destruction facilities at other locations.

Russia also lacks reliable equipment for preventing the release of toxic emissions into the environment, systems for detecting such emissions, and automated equipment for the destruction operations. Most serious of all, however, are the program's financial implications. Although credible estimates have yet to be provided by Russian officials, U.S. experts believe the destruction program probably will cost at least several billion dollars. Russia's parliament is unlikely to consider the destruction of chemical weapons a priority given the country's dire economic situation.

To help address these problems, the United States agreed in July 1992 to provide \$25 million of Nunn-Lugar funds to develop an overall plan for the Russian program and to consider providing some, but not all, of the necessary technology. The plan, however, probably will not be completed before early 1995, just two years before Russia will be required to begin destruction operations.

Option (A) -- limiting assistance to the design of the destruction program -- will relieve the United States and other Western countries of a considerable financial burden at a time when their own economies are in difficulty. The Soviet Union produced the weapons, and Russia, as its successor, should assume the primary responsibility for their elimination. Moreover, forcing Russia to finance the destruction operation might further reduce the funds available for Russian military programs. Failure to destroy the Soviet stocks would pose little risk to the United States or allied security in a Europe no longer facing a Soviet or Warsaw Pact threat.

Option (B) -- organizing substantial Western technical and financial assistance -- enhances the likelihood that Russia will be able to comply with the CWC destruction schedule. Doubts about its ability to fund the program, and therefore to meet its legal obligations, could delay or block Russian ratification of the convention. This, in turn, could influence the ratification decisions of many other countries, resulting in an unraveling of support for the convention.

Providing substantial Western assistance has other benefits as well. The rapid destruction of Soviet chemical weapons reduces the risk of their use in the event of civil unrest within the Russia. A Western commitment to provide, for example, matching funds for the program would also be a boon to U.S. companies, which could expect the lion's share of the contracts for designing, equipping, and helping oversee the destruction operations. Getting the destruction program up and running would also complement Western efforts to aid the Russian economy by creating a demand for Russian construction materials, workers, and trained personnel to operate the destruction facilities.

Recommendation:

Option (B). An immediate and substantial Western commitment to assist Russia in the destruction of the chemical weapons stocks of the former USSR is critical to successful implementation of the CWC.

Special Budgetary/Congressional/Diplomatic Implications:

A Western offer to match Russian funding could mean an obligation of as little as \$1 billion, spread out over 5-10 years. A high-level lobbying effort would be required to convince the Congress and U.S. allies to pay for their share of the program.

THE FUTURE OF THE AUSTRALIA GROUP

Issue (1993):

What should happen to the Australia Group when the CWC enters into force?

Options:

- (A) Dissolve the Australia Group when the CWC enters into force.
- (B) Continue the Australia Group controls until its members are confident of the viability of the CWC and the Biological Weapons Convention (BWC), including non-production of chemical and biological weapons (CBW) by non-parties. Assure developing countries that export controls will be lifted for parties in full compliance.
- (C) Formalize the Australia Group by giving it a legal mandate similar to that of the Missile Technology Control Regime (MTCR) and by requiring approval from the original source for re-exports. Five years after the CWC enters into force, ban exports to non-parties of all items controlled by the Australia Group.

Background/Discussion:

The Australia Group is an informal cartel of suppliers of dual-use CBW materials. It was founded in 1984 when Western countries realized the extent to which they had contributed to Iraq's chemical weapons program. Its members (currently 22 of the 24 members of the Organization for Economic Co-operation and Development) have harmonized their national export controls over CBW precursors and equipment with the objective of making CBW production more difficult and costly.

The newly completed CWC also controls trade in dual-use chemicals. However, it does not restrict the sale of dual-use equipment to non-parties, nor does it cover biological weapons materials. Three years after the CWC enters into force, trade in Schedule 2 chemicals (the immediate precursors of chemical agents) will be permitted only among parties to the convention. Export of Schedule 3 chemicals will require end-use certificates. (Schedule 3 chemicals are precursors to chemical weapons or chemicals previously used as warfare agents that are also widely used by industry.)

The principal advantage of **Option (A)**, which calls for the dissolution of the Australia Group, is that the lifting of export controls could attract more

Third World adherents to the CWC. Some developing countries have threatened not to ratify the CWC without a guarantee that the Australia Group controls will be lifted. They object to the continuation of those controls on three grounds: (1) export controls are a discriminatory measure that impedes their economic growth; (2) the successful completion of the CWC renders the controls superfluous in that parties are explicitly prohibited from producing or assisting others in producing chemical weapons; and (3) continued controls are inconsistent with Article XI of the CWC, which requires parties not to maintain any restrictions among themselves that impede trade or the spread of technology and scientific know-how.

One argument against dissolving the group is that it will be some time before its members are confident that the CWC regime is fully implemented. Moreover, the CWC does not control biological weapons-related exports or equipment used to produce chemical weapons. To cease all controls on these items before there is full confidence in the CBW regimes would be inconsistent with the stated U.S. objective of thwarting the proliferation of CBW.

The principal advantage of **Option (B)** is that it allows members of the Australia Group to respond to the actual behavior of potential proliferators. Parties in compliance will be rewarded with freer trade in dual-use CBW materials. Violators and non-signatories will be punished with continued controls.

As an informal supplier cartel, the Australia Group is more flexible than the CWC regime. In particular, its list of controlled chemicals can be modified more easily in response to suspicions. Another advantage to the group is that the continued exchange of intelligence about foreign CBW programs would help its members fulfill their legal obligations not to assist in the development or production of CBW. Finally, because the CWC only covers chemicals and munitions, continued controls on dual-use equipment and biological weapons-related materials would enhance the confidence of parties to the CWC and the BWC that they are not inadvertently contributing to proliferation.

A potential disadvantage of **Option (B)** is that continuing controls could adversely affect the willingness of developing countries to ratify the CWC, especially if they are not persuaded that the controls will eventually be eased.

As to **Option (C)**, proliferation of CBW is a long-term problem that cannot be solved completely by disarmament treaties. Giving the Australia Group a legal mandate would signal its members' commitment to curtailing the spread of these weapons. Requiring the approval of the original source for re-exports would reduce the probability that countries with less stringent oversight over exports would (possibly inadvertently) ship precursors to non-parties. Banning (as opposed to requiring licenses for) exports of listed

chemicals to non-parties five years after the treaty enters into force could further enhance the treaty's counter-proliferation potential.

The main disadvantage of **Option (C)** is that some developing countries would object even more strongly to a formalized Australia Group than to continued flexible controls and would be even less inclined to ratify the CWC than under **Option (B)**.

Recommendation:

Option (B). The Australia Group should maintain flexible controls until there is full confidence in the CWC and BWC. **Option (B)** provides the group with leverage over non-parties and cheaters: parties in compliance will be rewarded with freer trade, while non-parties and violators will be punished by continued controls. Further restrictions on trade may be intrinsically desirable but would increase North-South tensions and jeopardize Third World adherence to the CWC.

STRENGTHENING THE BIOLOGICAL WEAPONS CONVENTION

Issue (decision before May 1993):

Should the United States support a legally binding verification protocol to the 1972 Biological Weapons Convention (BWC)?

Options:

- (A) Continue the long-standing policy of encouraging declarations of biological activities and facilities permitted under the BWC but oppose efforts to negotiate a legally binding verification protocol.
- (B) Join other nations in supporting the negotiation and adoption of a legally binding verification protocol, including mandatory exchange of detailed information on biological activities and facilities, routine on-site visits, and challenge inspections.

Background/Discussion:

The BWC was the first international agreement to prohibit an entire class of weapons -- those involving biological and toxin agents. Its negotiators, however, failed to provide viable mechanisms for resolving doubts about compliance.

The lack of adequate means to verify compliance became more apparent in the 1980s as concern increased about Soviet biological weapons activities and the spread of biological weapons more generally. In response to these developments, funding for the U.S. program for vaccines and other defenses against biological weapons was increased four-fold. The United States and other Western industrialized countries also imposed export controls on organisms and equipment that could be used in the development and production of biological weapons.

Finally, in an effort to build confidence in compliance with the convention, parties to the BWC agreed to an annual exchange of information on certain activities and facilities relevant to the convention. Fewer than half the parties, however, have participated in these politically but not legally binding exchanges of data. Those not participating include most of the states the United States suspects of developing biological weapons.

In the aftermath of the Gulf War, international interest in a new approach to the biological weapons problem has grown. During the 1991

BWC review conference, many parties supported moves to begin immediate negotiations on a legally binding verification protocol. Others favored the establishment of an expert group to study and draft technical proposals first. The Bush Administration, which maintained that the BWC cannot be verified, succeeded in narrowing the group's mandate to examining possible verification methods rather than determining the viability of verification as such.

After two meetings, the expert group postponed further work until May 1993 to allow time for the new U.S. Administration to develop its policy. The group's report will provide the basis for a decision in the fall of 1993 on whether to proceed with negotiations on a verification protocol.

Option (A) -- a continuation of current policy -- is based on the belief that the BWC is not effectively verifiable. Those who oppose a verification protocol argue that the production of biological agents can take place in small-scale facilities that may be easily hidden. In addition, offensive, and thus prohibited, biological activities may be difficult to distinguish from permitted activities.

A legally binding verification protocol could also have costs for U.S. national security. An ineffective verification regime could create a false sense of security that provisions are being complied with. The necessarily intrusive nature of inspections could also jeopardize industrial secrets and sensitive national security information. A continuation of present policy, which relies on confidence-building measures (CBMs) and multilateral export controls on organisms and equipment, would encourage openness without incurring these costs.

Option (B) would change current policy by actively supporting the negotiation of a legally binding verification protocol to the BWC that would include a mandatory exchange of information on biological activities and facilities, routine on-site visits, and challenge inspections. Such a verification regime would create greater transparency of biological activities and facilities in member states so that it would be more difficult to conceal illicit activities. By increasing the likelihood of detecting such activities, parties to the convention are more likely to be deterred from actions that contravene it.

No verification regime can guarantee that all illegal activities will be detected or all non-compliance concerns resolved. Nevertheless, the greater degree of openness provided by mandatory data exchanges and routine visits to facilities, backed by the ability to conduct challenge inspections, can increase the cost and risk of non-compliance and enhance confidence in the integrity of the convention. The potential utility of such a regime is demonstrated by the recent agreement between Russia, the United Kingdom, and the United States to allow U.S. and British inspectors to visit Russian biological facilities to determine that previous illegal activities have in fact ceased.

U.S. support for a BWC verification regime would strengthen the cooperative, multilateral approach to international security that President-elect Clinton championed during the election campaign. It would also bring the United States back into agreement with close allies such as the United Kingdom, Canada, and France, all of whom support BWC verification measures. Finally, negotiation of an effective verification regime could eventually allow the United States to move away from trade restrictions that developing countries oppose and that penalize U.S. industry.

Recommendation:

Option (B). The threat of biological weapon use in the Gulf War has opened a window of opportunity for negotiating verification provisions for the BWC. Such a protocol would more effectively deter and detect violations than the current policy of relying on voluntary CBMs and export controls.

Special Budgetary/Congressional/Diplomatic Considerations:

A BWC verification protocol is likely to take several years to negotiate. Once agreed to, the protocol would require Senate ratification and implementing legislation. The U.S. share of the annual international cost would probably be several million dollars.



IV. NON-PROLIFERATION: MISSILE AND SPACE CAPABILITIES

Coordinators

Lora Lumpe and Peter D. Zimmerman

Principal Contributors

Export Controls	John Harvey John Barker Michael Elleman
The Missile Technology Control Regime and Advancing Technology	Peter D. Zimmerman
Cruise Missiles and the Unenvisioned Consequences of New Technology	Peter D. Zimmerman
Problem Countries: The Former Soviet Union	Eric Stambler John Pike
Problem Countries: China	Lora Lumpe
Problem Countries: North Korea	Michael J. Mazarr
Problem Countries: India	Lora Lumpe
New Control Options	Alton Frye Lora Lumpe Jeremy J. Stone
Satellite Proliferation/Anti-Satellite Weapons	Eric Stambler John Pike
Changes to the Anti-Ballistic Missile Treaty	Eric Stambler John Pike

Additional Reviewers

Fred Bergerson	Matthew Bunn	Jon B. Wolfsthal
Christopher Bolkcom	Richard Garwin	David C. Wright
	Lisbeth Gronlund	



EXPORT CONTROLS

Issue (January-June 1993):

How should the United States respond to impending transfers by U.S. and foreign firms to developing countries of dual-use items relevant to ballistic missiles, including space launch vehicles and components?

Options:

- (A) Continue current U.S. implementation of the Missile Technology Control Regime (MTCR). Severely restrict transfers by domestic firms to developing countries of nearly all missile-specific and many commercial, dual-use items useful for developing or producing ballistic missiles. Apply mandatory punitive sanctions against foreign firms that supply certain missile-relevant technologies or products, unless waived by the president.
- (B) Examine the possibility of permitting more dual-use exports within the MTCR. On a case-by-case basis, ease restrictions on transfers of certain dual-use items identified in Category II of the MTCR Annex (a list of system components helpful for missile production but that also have other commercial functions). In certain cases, permit transfers of space launch vehicles and components (but not production technologies) to developing countries. Seek assurances that these items will not be applied to the development of ballistic missile or related production programs or will not be diverted or re-exported. Impose sanctions against firms found violating end-use agreements.

Background/Discussion:

The current approach for controlling the proliferation of ballistic missiles centers on the export restrictions by supplier countries embodied in the MTCR. Many of the world's major supplier countries belong to this regime. Others such as Russia, although not full-fledged members, have pledged to adhere to the regime's guidelines. The controls strive to prevent the transfer of systems capable of delivering weapons of mass destruction and the components and technologies needed to build them. In theory, the regime does not purport to restrict legitimate commercial trade; in practice, however, transfers of commercial, dual-use items and technologies are severely limited by statute. Indeed, the

State Department must impose punitive sanctions against foreign or domestic firms that export to non-MTCR states components and technologies that could be used in the development or production of missiles unless the president grants a waiver on national security grounds.

Restricting transfers of missile-relevant items has effectively reduced their availability and slowed the rate of proliferation of missiles. Restrictions on dual-use transfers contributed to the demise of indigenous missile programs in several countries, including Brazil and Argentina. They have also hampered India's efforts to develop missiles.

On the other hand, despite the MTCR controls, several developing states could, over the next decade, achieve an indigenous capability to produce ballistic missiles -- including, in some cases, relatively sophisticated ones. In addition, advanced strike aircraft systems, which are very effective for delivering advanced weaponry, are sold almost without control in the international arms market; this situation defeats the overall goal of the MTCR of restraining the acquisition of a weapons delivery capability by developing countries.

The issue of foreign sales of missile-related dual-use items highlights the tension among U.S. policies to promote economic prosperity, achieve non-proliferation goals, and carry out other foreign policy objectives. First, U.S. export control policy may be counterproductive to U.S. economic interests if it impedes high-technology companies from exporting commercial products, especially if other suppliers do not accept the same restrictions. Moreover, aerospace dual-use exports represent a mechanism for sustaining an important element of the U.S. defense research and development (R&D) and industrial base in a period of declining defense expenditures.

Second, the United States seeks to encourage economic development in the Third World, yet Third World states view restrictions on technology transfers as barriers to this development.

Third, the policy of mandatory U.S. sanctions on dual-use transfers may impede U.S. efforts to encourage conversion of the defense industry in the former Soviet Union (FSU). Specifically, some experts have questioned the wisdom of imposing sanctions on the Russian space consortium Glavkosmos for contracting to sell cryogenic rocket engines to the civilian Indian Space Research Organization, especially since the rockets in question are less militarily relevant than others India already possesses and given that India is not likely to be a strategic threat to the United States. Other experts support the sanctions because India has historically retained a close link between its military and civilian space programs, and any improvements in either could further exacerbate tensions with its neighbors, including Pakistan and China.

Option (A) calls for continuing a strict application of the MTCR. The MTCR is an effective means of impeding technical progress by those developing states determined to acquire ballistic missiles. It enjoys legitimacy among supplier countries and has succeeded in controlling ballistic missile programs in developing countries. At the same time, largely inflexible global controls on dual-use items that have legitimate commercial applications may harm overall U.S. interests if, for example, developing nations perceive them as a threat to economic development or if they hamper legitimate civilian programs in countries that seek to convert their military facilities to civilian production.

Option (B) entails an easing of the restrictions on transfers of certain missile-related dual-use items. States that have verifiably renounced chemical, biological, and nuclear weapons programs and that otherwise have behaved responsibly in the international community would be given the benefit of the doubt in their attempts to purchase missile-related dual-use items, assuming appropriate and monitorable end-use assurances are received. Other states would be dealt with case-by-case, with foreign availability of the desired technology being an important criterion in deciding on export licenses. Problem states would continue to be denied access to missile-related items, as under current policy.

Such a policy would promote trade, enhance economic and industrial progress in developing states, and benefit U.S. high-technology companies by allowing them to profit from the sale of commercial products that pose little risk of contributing to military programs. Easing the restrictions could, however, be counterproductive if the world community interpreted it as a step back by the United States from its strict non-proliferation policies. It could lead to inconsistent interpretation and enforcement of MTCR guidelines, in addition to providing a mechanism for countries bent on pursuing ballistic missile programs to obtain sensitive items or technologies.

Recommendation:

Option (B). The United States should re-examine its export control policies on missile-related dual-use items to determine if **Option (B)** could be implemented without unduly weakening prudent non-proliferation policies.

THE MISSILE TECHNOLOGY CONTROL REGIME AND ADVANCING TECHNOLOGY

Issue (spring 1993):

Since some weapons at the lower end of MTCR coverage -- whether ballistic missiles or cruise missiles -- can be built with technologies not much more advanced than Western technology was in 1945, should the United States shift its efforts at technology control to missiles of longer range while placing greater emphasis on diplomatic leverage to limit shorter range missiles?

Options:

- (A) Attempt to embargo all sales of missile/space-related rockets and subsystems to countries not belonging to the MTCR suppliers group.
- (B) Recognize that the pace of technology dictates shifted emphases, with diplomatic persuasion apt to be more effective against proliferation of short-range missiles and technology barriers more effective against longer range ones. Do not drop efforts to restrict sales of short-range missiles, but understand that such hardware can be built indigenously, and attempt to strike reasonable compromises.

Background/Discussion:

Long-range missiles entered routine combat service during World War II in the form of the V-1 "buzz bomb" cruise missile and the V-2 ballistic rocket. By today's First World standards, both weapons are crude, but both meet the standards of the MTCR. The Scud-B is little more than a modernized V-2. Iraq found it possible to stretch the range of the Scud-B and, after development work, to produce airframe components indigenously, according to United Nations inspectors. North Korea (Democratic People's Republic of Korea) manufactures Scud variants for export; China sells far more advanced missiles. Other nations such as Argentina and Brazil have demonstrated an ability to produce rockets for scientific research that have then been adapted for military purposes, while both India and Pakistan have built their own ballistic missiles, which exceed the capabilities of an MTCR missile (previously defined as being able to carry 500 kilograms to a range of 300 km, but now including all missiles capable of delivering weapons of mass destruction).

The ability to construct ballistic missiles is widespread, and the arsenals of nearly every country contain missiles or heavy artillery rockets with shorter ranges than those specified by the MTCR limits. Furthermore, the technology to reverse-engineer or construct a 300 km range ballistic missile is well-understood and incorporated in the general technological base of many developing nations or can be bought readily on the uncontrolled open or black markets. However, the difficulty of building missiles increases exponentially with range, and it is here that export and technology transfer controls could have some effect. The re-entry vehicle for an intermediate-range ballistic missile (IRBM) must be significantly more sophisticated than that of a short-range rocket. The rocket itself becomes more complex as its range is stretched.

The technical difficulties in the way of a successful inter-continental ballistic missile (ICBM) escalate rapidly even beyond those of an intermediate-range missile. The guidance system ought to be of a quality that to date has been produced only in the United States and the FSU (Chinese ICBMs are much less accurate). The missile must be made using far more intricate techniques. An inter-continental cruise missile would be at least as complex as a Lear jet with inter-continental range.

With respect to **Option (A)**, as a Pentagon missile proliferation specialist once remarked, there are 250,000 parts in a Pershing II, all of which must work perfectly. The same specialist also argues that only Western nations (or the FSU) could supply such technology, so that an embargo would be highly effective. If the United States can delay the proliferation of missile systems by imposing technical controls on technical exports, this could be counted as successful. In the arena of guided missile construction, some believe that it is important to be at the top of the technological food chain -- IRBMs and ICBMs. Thus, it is sensible to embargo all technology. A full embargo simplifies the task of making decisions, since case-specific exceptions need not be made. In the case of simple technology, however, supply-side controls are apt to fail, as they do in the drug war, because of the enormous profits available in both markets.

As to **Option (B)**, the West has little to gain from seeking purely technical controls on primitive weapons that are already so widespread and are of little military utility. Diplomatic suasion will be more productive in combatting the spread of missile systems at the lower end of the range restricted by the MTCR. Diplomatic efforts, such as affirmative security guarantees and assistance in the negotiation of regional missile free zones, are likely to have more effect in persuading nations not to construct missiles than would technical controls that many see as discriminatory.

Because of the difficulty and expense associated with the acquisition of intermediate- or long-range (significantly more than 500 km) ballistic and cruise missiles, and because the technical base to build such weapons is

available only in the First World, the United States should focus its efforts on controlling the transfer of technology in these areas. Diplomatic efforts could also be somewhat more useful in this regime than they would be in managing the proliferation of shorter range systems because of the extra cost of long-range systems. Normally, countries do not expend the human and financial resources needed to acquire sophisticated missiles unless they believe they face specific security threats that can be ameliorated by the possession of advanced weaponry. As a first step, at least, U.S. diplomacy should focus on the search for regional security solutions, followed up by the eventual establishment of missile free zones.

Finally, access to space has become a symbol of technological development and a necessity for many nations' communications, commerce, and remote sensing needs. Industrializing nations already see the failure on the part of First World nations to seek ways to distinguish between indigenous space launch programs and missile programs as intolerably discriminatory.

Recommendation:

Option (B). First, since all the technology needed to build cruise or ballistic missiles with ranges in excess of 300 km but less than about 2,000 km is available within the constellation of developing states, the United States should emphasize technology controls to limit the spread of missiles at the longer range end of this interval. These missiles are more difficult to build and test; hence the industrialized countries possess important technological leverage. Because of the simpler nature of 300 km range ballistic and cruise missiles, demand-side controls will become the principal tool for discouraging the construction of missiles of lesser range.

Second, the United States should augment its supply-side efforts to prevent the proliferation of missiles with demand-side programs to reduce the tensions between regional powers and to provide appropriate security assurances through regional alliances reinforced by guarantees by the major powers against attacks by missiles with ranges in excess of the MTCR threshold.

Third, attention should be focused on the problem of differentiating between the development of rockets for scientific purposes and the development of potentially similar rockets for use as missiles.

Special Considerations:

These recommendations require rethinking the way in which the MTCR is administered, including relaxation of the automatic sanctions for such acts as the Russian sale of a liquid hydrogen rocket to India, as well as a restructuring of the mechanisms of diplomacy related to the non-proliferation of missiles and the collection and analysis of intelligence. Additional and aggressive non-proliferation diplomacy may permit some relaxation of export controls by providing closer monitoring of end-uses. Some of the diplomatic steps may affect friends (such as Israel) that are already missile powers but not suppliers, as well as regional powers such as India that want to extend their sphere of military influence.

CRUISE MISSILES AND THE UNENVISIONED CONSEQUENCES OF NEW TECHNOLOGY

Issue (constant):

New technology emerging from the laboratory is usually presented as beneficial by its promoters. While that claim is often the case, unenvisioned results may ensue, and apparently benign technology may turn out to be the cornerstone of new kinds of weaponry. Should the United States embargo the export of technology in computing, navigation, and propulsion (for example) to forestall its misuse, even when the foreseeable utility may be great? If so, what level of likelihood of misuse should trigger technology controls?

Options:

- (A) Access to new technologies such as the Global Positioning System (GPS) satellite navigation system should not be restricted unless they will clearly contribute to the proliferation of weapons such as guided missiles.
- (B) The possibilities for misuse of new technology should be studied not only by the developers and funders of the technology, but also by an external group or panel, before the new developments are released without restriction and appropriate steps for control incorporated in the procedures for export licensing (essentially current policy). When the potential for misuse is great, even if the potential for beneficial use is also enormous, steps might be taken to enable the United States to "disarm" or disable the equipment even after export (an addition to current policy).
- (C) The export of new technologies should be restricted until they are proven to have no significant consequences for the proliferation of weapons of mass destruction or their delivery vehicles.

Background/Discussion:

The following subsection uses an analysis of the GPS system's virtually unforeseen utility as a cruise missile guidance system to illuminate the policy issues.

Initially modern cruise missiles did not seem to pose very much of a proliferation problem. Either their accuracy was not significantly better than

that of the V-1 "buzzbomb" used by the Germans in World War II -- in which case they could be built by states with modest technological bases but were of little military use, or if they were highly accurate, their production required technology comparable to that available only in the United States (such as the terrain comparison radars and computers needed to compensate for the inevitable drift in flight). The American Tomahawk is an example of the most advanced technology.

Within the last two years, however, new technology for guidance systems has reached the market. The GPS and the burgeoning commercial market have made location-finding equipment, precise to about 30 meters (using differential techniques), available at prices of less than \$1,000. The designers of the GPS recognized that higher accuracy could be militarily useful, and they included an encrypted channel, precise and accurate to about 10 meters, denied to commercial customers. A good GPS receiver provides updated information roughly once every two seconds. A GPS receiver will also provide absolute altitude above sea level good to better than 20 meters; determining altitude above the ground beneath requires an additional digital terrain map.

GPS receivers are sold widely and are conveniently packaged in standard modules to fit private planes. At least one company is marketing a combined differential GPS receiver and autopilot for less than \$5,000. *This unified instrument is the guidance system for a cruise missile sold under a different label.* Export controls on U.S. producers alone would be useless since similar equipment is made world-wide.

Civilian remote sensing imagery available from sellers who market American, French, and Russian pictures can provide targeting information accurate to better than 20 meters in absolute distance (certain Russian data are good to better than 5 meters). Digital terrain models accurate to about 100 meters are available from the U.S. Defense Mapping Agency but can be readily created from the SPOT satellite pictures sold by the French. The combination of a SPOT or high-quality U.S. or Russian image and a GPS/autopilot can transform a light aircraft or an unmanned aerial vehicle (UAV) into a cruise missile with a range of hundreds or thousands of kilometers and a miss distance that is totally independent of the distance the missile flies. A cheap UAV so equipped would be similar in capability to the more complex and expensive Tomahawk missile.

Despite its utility as part of a cruise missile guidance system, nobody would turn off GPS. The ability to navigate with high precision has become too important. Similarly, remote sensing imagery provides a critically important picture of the world that cannot be denied in peacetime on the grounds that it can be misused.

With respect to **Option (A)**, it is difficult or impossible to foresee the applications of new technology, even those involving space flight, navigation, and propulsion. Furthermore, once the fundamental science has been done, free market forces will commercialize virtually any promising technology. Since technological capabilities are widespread, it is preferable that U.S. companies reap the profits from American science. Thus, it is unreasonable to restrict the application of technology not *known* to be dangerous. The fundamental principle is that a technology should be considered innocent until proven guilty.

As to **Option (B)**, the French Government carefully considered the capabilities of SPOT before the satellite was launched and deliberately established them at a level thought not to be militarily significant (events have proven this assumption false). Nevertheless, the French Government, while commercializing SPOT, retained effective control over the dissemination of its data to others and did not hesitate to use that control during the Gulf War. The United States has made no such arrangements regarding the GPS and may pay a heavy price in a future crisis. The United States understood the capabilities of the GPS but took no steps to establish a capability to deny the system to a potential adversary.

In the case of **Option (C)**, some technologies such as nuclear engineering, GPS, and remote sensing have obvious military applications, and their export could be -- and in two of the three cases is -- controlled. However, assessing other technologies with potential for abuse is difficult. It is also not possible to limit the areas of the world in which *discoveries* are made, so that overly cautious export controls are as apt to work against U.S. interests as for them.

Recommendation:

Option (B), with the inclusion of a capability to deny the fruits of the technology at appropriate times, provides the greatest flexibility both to exploit U.S. technological superiority in the future and to retain substantial control over technology that may become useful to potential proliferators or competitors. **Option (A)** poses too many risks, and **Option (C)** requires perfect knowledge for its success.

Special Considerations:

The Defense Technology Security Administration (DTSA) may be the appropriate agency to examine both civilian and military advances in technology for their unintended military applications.

PROBLEM COUNTRIES: THE FORMER SOVIET UNION

Issue (first six months):

In addition to helping FSU republics devise and implement adequate export licensing and control procedures, how can the United States best move to prevent the proliferation of ballistic missile technology from the FSU to the developing world?

Options:

- (A) Continue the current policy of limited dealings with the FSU aerospace industries so as to hasten their collapse.
- (B) Encourage the conversion of the FSU aerospace industries.
- (C) **Option (B)**, but also target the missile production industries for special cooperation in civil space projects.

Background/Discussion:

Four former Soviet republics, including Russia, now have nuclear-tipped long-range ballistic missiles. While the non-Russian republics have pledged to liquidate their newly acquired nuclear forces eventually, how these pledges will be implemented remains unresolved. Meanwhile, the question of missile production facilities in these republics -- especially Ukraine -- remains largely unaddressed. Individuals and production facilities formerly engaged in the development and production of missiles now find themselves without a clear future. The fate of these hundreds of ballistic missiles and thousands of missile-industry workers in the FSU is of tremendous concern: the incentive to export missiles or missile-related technology in exchange for hard currency may be great. Similarly, engineers and technicians may be tempted to accept offers of employment in countries attempting to develop indigenous missile programs.

Enterprises formerly subordinated to the Ministry of General Machine Building, previously responsible for the production of ballistic missiles, reportedly have large quantities of spare parts and materials left over from canceled production. Care must be taken to ensure that production is not resumed for sales abroad or that the surplus materials themselves are not sold off. Although Russia has agreed to adhere to the MTCR guidelines, the other republics have not.

As industries are privatized, the danger exists that production could be converted to dual-use technologies, which could be sold abroad to raise hard currency for ailing economies. Greater production of dual-use technologies -- those relevant for ballistic or cruise missiles as well as for manned aircraft or space launch vehicles -- would make potential government regulation more difficult to enforce.

The United States has undertaken a number of initiatives to discourage the transfer of nuclear weapons and expertise in the design of nuclear weapons to third countries. Analogous policies to discourage the transfer of missiles and rocket design expertise have not, however, been forthcoming. The United States has made limited purchases of select FSU aerospace technologies, but until now has prohibited any dealings with the aerospace industry that might in any way sustain a continued military production capability. In May, the United States initiated sanctions against Glavkosmos, the Russian space agency, and prohibited U.S. aerospace and electronic companies from exporting or importing equipment to or from Glavkosmos. The sanctions, to run for two years, came in response to Russia's sale to the Indian Space Research Organization of a liquid hydrogen cryogenic engine for use in India's space launch program. The United States considered the sale to be in violation of the MTCR.

Option (A) calls for a continuation of the current policy of limited dealings with missile-related industries in the FSU. Punishing Russia for sales of technology with a clearly limited military utility, such as that of the cryogenic rocket sold to India, further hastens the demise of Russia's aerospace industry. Under this policy, assets are more likely to be sold off to any bidder willing to pay, a result that effectively precludes the possibility of converting to civilian production. As jobs vanish, trained scientists in the industry and production managers could seek employment in other countries simply to keep food on the table.

Option (B) involves encouraging the conversion of the aerospace industries. Defense industry conversion is a long and arduous process, even in a developed market economy; the current economic chaos in the FSU compounds the difficulty.

The former Soviet aerospace industries would most likely convert to the production of dual-use technologies, whose export might release technologies that the United States does not want other countries to possess. The United States is currently working with the FSU governments to design and implement export controls, but the effectiveness of these governments in controlling such exports is not yet established.

Current proposals that the United States purchase Russian equipment do not address the problems of production overcapacity or worker retraining.

Option (C) -- encourage conversion and promote greater cooperation in civil space activities -- would provide jobs for industry workers while eliminating the dangers of commercial sales of dual-use products. Targeted cooperative efforts would create an expanded science and technical base for international environmental monitoring and scientific discovery, as well as extend civil space exploration. Enacting this proposal would necessitate lifting the sanctions banning business with the Russian space agency imposed in May.

Recommendation:

Option (C). Cooperative ventures, such as joint space exploration and environmental monitoring projects, should be identified that would make use of FSU aerospace assets and expertise, while turning FSU industry away from military production.

PROBLEM COUNTRIES: CHINA

Issue (January-February 1993):

China agreed in November 1991 to abide by the MTCR export restrictions; however, concern that China is violating or will violate this pledge is often voiced. How can the United States best discourage China from selling ballistic missiles and missile technology to developing countries?

Options:

- (A) Either through legislation or by executive act, condition renewal of China's most favored nation (MFN) trade status on its adherence to the MTCR guidelines, among other things.
- (B) Bring China into the MTCR as a full member.
- (C) Link Chinese restraint in missile sales to restraint in sales of advanced combat aircraft by other countries, including the United States.

Background/Discussion:

In 1988, China transferred 50 2,500 km range CSS-2 (DF-3) missiles to Saudi Arabia. In the late 1980s, China helped Iran produce artillery rockets with a range of 130 km. In the early 1980s, China initiated the development and production of a family of tactical missiles (the "M" series) for export. At the same time, the United States and its six leading economic allies were conducting secret negotiations on missile technology control. The MTCR was finalized in 1987, a year after China had openly displayed a mock-up of its M-9 missile at an international arms bazaar. Pending sales of the M-9 missile to Syria have often been reported in the press since 1989; according to the State Department, they have not taken place. Sales of missiles to Libya are also occasionally rumored but have not been carried out.

In mid-1991, China transferred some missile technology controlled under the MTCR to Pakistan, a move that resulted in the imposition of sanctions by the United States against the Chinese and Pakistani companies and government agencies involved. U.S. companies were prohibited for two years from conducting business with these entities. These sanctions hit both the Chinese and U.S. aerospace industries hard.

During a visit by Secretary of State James Baker to China in November 1991, the Chinese Foreign Ministry spokesman said that China would "abide by the standards and interpretations of the MTCR when making technological transfers, on the condition that the United States lift the three sanctions it placed on China." In February 1992, after the Chinese Government put this pledge in writing, the Bush Administration lifted the sanctions.

Based either on press accounts or classified intelligence running counter to State Department statements, several members of Congress claimed often during 1992 that China was continuing to transfer missile-relevant technology, if not actual missiles. Congress attempted three times in 1991 and 1992 to condition China's MFN status on, among other things, its not selling ballistic missiles and technology to Syria and Iran. President Bush vetoed the bill each time, and in September 1992 a State Department spokesman reported that "Chinese behavior is consistent with its obligations." In November 1992, however, the long-rumored sale of 24 of China's M-11 missiles to Pakistan reportedly occurred. As of mid-December 1992, the State Department refused to validate the allegations, saying no determination had yet been made of whether a transfer in violation of the MTCR, U.S. law, or Chinese obligations had taken place.

Option (A) would condition Chinese MFN status in part on missile non-proliferation. During each of the Congressional debates over conditioning MFN status, the Chinese Government made clear that it would view passage and enactment of such a measure as an overtly hostile act. This reaction demonstrates the value China attaches to MFN status; clearly China pays attention to the use of this "stick."

At the same time, economic reform -- driven largely by exports -- is a primary goal of the Chinese Government. The West has fostered China's economic liberalization, benefitting from the increased trade and hoping that it will eventually lead to political liberalization. Penalizing capitalist behavior and isolating China would not advance these goals. Conditioning MFN would also adversely affect American exporters -- from the aerospace industry to wheat farmers.

Option (B) would bring China fully into the MTCR. China was not invited to become a full member of the MTCR, but rather an "adherent," reportedly because of concern over China's lack of adequate export controls and over the sensitivity of sharing intelligence with China. Having some countries become "members" and others only "adherents" to the regime leaves room for some ambiguity in press accounts and public opinion as to the intentions of the adherents. It also fuels Chinese claims of discrimination. In 1991 China acceded to the regime under pressure but complains bitterly about not having been involved in drafting the agreement. A country of China's political import and missile proliferation potential should be brought to the

table as an equal partner. By remaining a half-member, China has less incentive to abide by it.

The nature of Chinese arms production and the sales bureaucracy do make export controls problematic. The United States is currently working with the FSU and East European countries through COCOM and through bilateral arrangements to strengthen their export controls. Similar assistance could be offered to China to facilitate full membership in the regime.

Option (C) would link missile proliferation to aircraft proliferation. In the talks among the big five arms suppliers initiated after the 1991 Gulf War, China sought to equate ballistic missile proliferation in the Middle East with the spread of advanced combat aircraft, which can deliver larger payloads over longer ranges and with greater accuracy than can most Third World ballistic missiles. Several independent and Congressional studies in the United States in the past two years have also noted the greater military capability of aircraft over the missiles that have been proliferating. Rather than limit only missile exports -- China's only marketable weapon -- a better approach might be to broaden the export restrictions to include all forms of long-range delivery for weapons of mass destruction. However, such a policy, while very sensible, currently faces serious political challenges, given the widespread dependence of the major military aircraft-producing countries on foreign sales.

Recommendation:

Option (B). China should receive some political benefit for having agreed to take the economically costly step of ending its missile sales, if in fact it is abiding by its obligations. Conditioning MFN status may be justified on other grounds, but given the State Department's past public statements it is not clearly justified on the grounds of missile proliferation alone. If, however, the State Department finds that the M-11 sale did occur and that the sale violates China's MTCR pledge, it should publicly report that fact, and this option could be reconsidered.

PROBLEM COUNTRIES: NORTH KOREA

Issue:

North Korea is one of the world's leading sources of missile proliferation, having produced and exported its own version of the Soviet Scud missile since the mid-1980s to customers such as Syria and Iran. What should the United States do to halt this burgeoning trade in missiles?

Options:

- (A) Continue the current policy of diplomatically and economically isolating North Korea until it ends its missile proliferation and its nuclear weapons program.
- (B) Take military action, such as seizing the ships that carry North Korea's missiles abroad or attacking the production facilities within North Korea.
- (C) Offer economic incentives to North Korea to end its sales of missiles.

Background/Discussion:

North Korea earns a large percentage of its hard currency through arms exports and has been in the missile business for a number of years, selling original-model Soviet Scud missiles to customers in the Middle East since the mid-1980s. It does not adhere to the MTCR, and its sales violate no international law or North Korean public commitment.

North Korea has also served as a conduit for shipments of Chinese arms to the Middle East, most notably sending CSS-N-2 Silkworm anti-ship missiles to Iran in 1987 and 1988 in a move for which the Chinese denied responsibility.

More recently, North Korea has expanded its missile business, producing its own variant of the Scud. First discovered by U.S. spy satellites in May 1990 and first test-fired in July 1991, these "Scud C" missiles (called the SS-1D by North Korea) have a range of nearly 500 km and, like Iraq's weapons, can be fired from mobile launchers. Also like the Iraqi Scuds, the North Korean version is not thought to be very accurate. North Korea has been selling these missiles to Iran and Syria.

North Korea is now working on a new generation of ballistic missile, the Nodong, named for the location of the missile test facility north of Pyongyang. The missile has apparently not yet been test-fired, but its range is believed to exceed 1,000 km, sufficient to hit targets in South Korea (the Republic of Korea), Japan, China, and Siberia. Paired with the products of North Korea's alleged nuclear and chemical weapons programs, such a missile would be highly destabilizing and could spur greater Japanese armament.

In March 1992, the Bush Administration made a number of public threats to board and search two North Korean vessels reportedly carrying Scud C missiles to Iran. However, the United States apparently decided against boarding the vessels, and in any case the first ship eluded U.S. search vessels and aircraft and slipped into port at the Iranian city of Bandar Abbas. North Korean officials denied the ships were carrying missiles.

With respect to **Option (A)**, because exports of missiles provide one of the North's few sources of hard currency earnings, North Korea predictably ignores U.S. demands to cease missile proliferation. As to **Option (B)**, military action would be domestically and internationally unacceptable. It would also risk war on the Korean Peninsula and involve scarce U.S. defense resources in a tiring new global responsibility. If limited to interdicting ships at sea, it might also fail; China, for example, could agree to carry North Korean missiles by land. As to **Option (C)**, in return for an agreement to end its exports of missiles, the West could structure an initiative that provides money to compensate for profits lost because of the abrogated missile sales. North Korea would likely be interested in such a trade, which would preserve its foreign currency earnings and boost its world image. Japan, given its proximity to the potential threat, might provide most of the funds. One problem is that such a policy might set a costly precedent, with other countries seeking to be bribed out of their proliferation activities.

Meanwhile, North Korean hopes for expanded trade and diplomatic recognition should remain tied to resolution of the nuclear issue, with the missile proliferation agreement spurring progress there by holding out the potential for a beneficial deal once agreement is reached on international demands for additional inspections of North Korea's nuclear facilities.

Recommendation:

The United States ought to begin developing **Option (C)**, attempting to find some package of economic aid, loan guarantees, and other resources in exchange for which North Korea might agree to cease its missile exports. Such efforts, however, must not impair efforts to achieve South Korean inspections of North Korea's nuclear facilities. Further, any aid deal on exports of missiles must await resolution of the nuclear issue.

PROBLEM COUNTRIES: INDIA

Issue (first 100 days):

Should the United States waive the sanctions imposed in May 1992 against the Indian and Russian space agencies for the sale by Russia to India of a cryogenic rocket engine?

Options:

- (A) Maintain the current policy of sanctions against companies or state enterprises that sell any technology listed in the MTCR annex to India, and against any Indian entities that purchase any MTCR-restricted technologies.
- (B) Waive the sanctions imposed for the sale of the Russian cryogenic rocket engine to India, citing the presidential waiver included in the U.S. MTCR sanctions legislation.
- (C) Seek to refine the U.S. MTCR sanctions legislation to permit safeguarded transfers of equipment for use in space launch programs.

Background/Discussion:

The Indian Space Research Organization (ISRO) initiated work on a civilian space launch capability in the mid-1970s. Launcher technology from ISRO was diverted to a military missile program, later initiated by a separate organization. The two-stage, 2,400 km range Agni uses, as its first stage, the solid-fuel booster motor of the SLV-3 (satellite launch vehicle). With the Agni launch in May 1989, India joined the ranks of the United States, Commonwealth of Independent States (CIS), United Kingdom, France, China, and Israel as the only countries to have built IRBMs. Indian officials have described the missile as a "technology demonstrator" and whether it will be deployed is unclear.

In May 1992 the United States imposed sanctions -- as mandated by the U.S. MTCR sanctions legislation -- against India and Russia in response to the sale of a cryogenic rocket engine by Glavkosmos to ISRO. Cryogenic rockets are listed in Category I of the MTCR annex of controlled technologies. Adherents to the MTCR are to apply a "strong presumption to deny" such exports; however, if a binding government-to-government assurance is obtained that the technology will not be used in a military ballistic missile,

transfers of these items are permitted. Russia has assumed the Soviet Union's 1990 pledge to adhere to the regime.

While the MTCR clearly envisioned that transfers of such equipment might occur for use in SLVs, the U.S. sanctions legislation makes no distinction between SLVs and ballistic missiles: sales of any listed equipment to a non-MTCR state results in the invocation of sanctions. Even though India had provided the required assurances to Russia that the booster was for use in its space launch program, the State Department termed this transaction a violation of the MTCR and imposed the legislated sanctions. Under the sanctions, ISRO and Glavkosmos are both ineligible to buy space-related technology from U.S. industry for two years. No other MTCR member or adherent has denounced this transaction as a violation or applied sanctions.

India did not gain any new, militarily significant capability with the sale. The booster employs liquid hydrogen fuel, which is non-storable and must be loaded at super-cool temperatures, so that it is extremely difficult and expensive to maintain such a rocket ready for launch. Because of this difficulty, no nation has ever used a hydrogen-fueled rocket engine in a ballistic missile. Moreover, the engine is a small, third stage, useful for space flight but of little utility for military application. Acquiring the rights to build this engine under license, as India did in this sale, will not significantly improve India's missile capability.

Option (A) calls for upholding the sanctions against both Russia and India. Even though the liquid hydrogen engine is not directly militarily useful, with its transfer India gains further technical competence relevant to military missiles. India is believed to have, or could on very short notice have, nuclear weapons. It is not a party to the NPT. Thus, a potential ICBM capability is especially dangerous. Further, the United States protested heatedly against French plans to export cryogenic rockets to Brazil for use in that country's SLV. Imposition of the sanctions against India for similar exports are, it could be argued, necessary for consistency and even-handedness in pursuit of non-proliferation ideals.

Option (B) suggests waiving the sanctions against both countries. The sanctions against Russia angered Russian military hard-liners, who already complain bitterly that Russia is deferring too much to American policy on arms control. If cash-starved Russia cannot sell legitimate civilian space technology, it may be compelled to make less discriminate and more covert sales of surplus weaponry.

The sanctions are also costly to the U.S. commercial aerospace and electronics industries. American industry will lose at least \$50 million in sales annually. While this amount is only a small portion of the \$5 billion in space-related commerce expected for American industry in 1992, the chilling effect on the market for U.S. industry could prove a much greater loss. Such wide

application of sanctions may also undercut vitally needed industry support for the goal of containing ballistic missile proliferation.

Option (C) would amend the legislation to allow for responsible, end-use verified transfers of commercial space technology, including equipment in Categories I and II of the MTCR annex.

A major study of export controls released by the National Academy of Sciences in 1991 recommended that the United States avoid unilateral application of export controls, which in effect is what the U.S. implementation of the MTCR constitutes. The report further suggests that controls should focus on the destinations of greatest proliferation concern -- countries that violate some accepted norms of conduct -- and on narrowly proscribed military activities or items that are required *directly* for weapons systems. "Lacking such specificity, efforts to control exports of proliferation-related technologies create a risk...[of] imposing significant economic costs that may be disproportionate to their effectiveness." Such considerations should guide amendment of the U.S. legislation.

The legislation does, however, contain a "national security interests" waiver that can be used to mitigate the effects of the sweeping language. The waiver has been employed twice before, in the cases of China and Israel.

Recommendation:

Option (B) immediately, and then consider **Option (C)**. Given the low military utility of the technology, the non-proliferation benefits of imposing sanctions for this transfer do not outweigh the many negative consequences. Revision of the legislation should be considered, but the flexibility afforded by the presidential waiver may alleviate the need for radical amendment.

NEW CONTROL OPTIONS

Issue (long-term):

The current approach to limiting the spread of ballistic missiles -- the MTCR -- has both technical and political weaknesses. With rising concern about missile proliferation and the new opportunities afforded by the end of the Cold War, what other measures should the United States consider?

Options:

- (A) Encourage ballistic missile free zones in the Third World regions of greatest concern.
- (B) Open up the Intermediate-Range Nuclear Forces (INF) Treaty for signature by all countries, thus banning missiles with ranges of 500-5,000 km, perhaps lowering the range to include both short- and intermediate-range ballistic missiles (110-5,000 km).
- (C) Initiate negotiations for a global ban on all ballistic missiles down to a minimal range.

Background/Discussion:

The proliferation of ballistic missiles -- in conjunction with weapons of mass destruction -- is now a central U.S. security concern. According to recent testimony by the Central Intelligence Agency, several new ICBM countries can be expected to emerge in the coming decade. The Third World countries closest to developing long-range missiles (Israel and India) also have nuclear weapons capabilities. While these countries may not be immediately worrisome to the United States, their deployment of long-range nuclear missiles would increase global tension and foster arms races. The current strategy seeks to impede ballistic missile and space launch programs through the MTCR, while at the same time pursuing strategic anti-missile systems as a hedge against the failure of these export controls. This approach, however, has not stopped the development of missiles by Israel and India, nor has it ended sales of missiles by others.

Iraqi Scud attacks against Israel and Saudi Arabia during the 1991 Gulf War reinforced concerns about even short-range and conventionally armed ballistic missiles in the developing world as a threat to U.S. allies, interests,

and troops overseas. The MTCR in no way addresses those missiles already deployed.

Given the failure of the supplier-oriented export control approach to deal with this threat fully, a fundamentally new approach to the problem may be necessary. With the global political changes of the past two years, a cooperative arms control approach -- involving the developed and developing world -- would likely provide better results and might now be possible.

Option (A) -- encourage regional missile bans -- may soon be feasible in many regions, with the major actors negotiating ballistic missile free zones. In the Middle East, where it is the most difficult to envision a ban, Israeli cooperation in the Gulf War and in the ongoing Middle East peace process make such a possibility at least conceivable. In May 1991 President Bush called for a missile ban in the Mideast, beginning with a halt to further acquisition, production, and testing of ballistic missiles of any range by states in the region, to lead eventually to "the ultimate elimination of such missiles from their arsenals."

Many other regions of the world -- including South and Central America, Sub-Saharan Africa (with the possible exception of South Africa), Australasia, and Antarctica -- are currently free of deployed ballistic missiles and apparently free of intentions to deploy them. Missile free zones could easily be established in these regions.

Option (B) is to globalize the INF Treaty. In 1987 the United States and USSR signed the treaty, eliminating the two sides' IRBMs. The United States and Russia could introduce a draft multilateral treaty at the Conference on Disarmament to ban INF-range missiles globally. Such a treaty would be non-discriminatory in the narrow sense that everyone would give up missiles of this class. Nearly all of the systems currently deployed by developing countries would, however, fall below the 500-5,000 km range covered by INF. The ubiquitous Scud-B, for example, would not be included. In the Third World, only the Israeli Jericho, the Saudi CSS-2, the Indian Agni (under development), Iraqi missiles (now being destroyed), and North Korea's extended-range Scud missiles (under development) would be covered. A regime that left their adversaries' missiles in place would be unacceptable to the Israelis and Saudis. Without Israeli participation, acceptance of such a regime by the Arab countries is unlikely.

If the United States, FSU, and countries of the former Warsaw Pact and of NATO agreed to eliminate their short-range (110-500 km) missiles (it is difficult to imagine why they would not), the United States and Russia could present a draft treaty banning short- and intermediate-range missiles to the multilateral Conference on Disarmament. This enlarged regime would be more meaningful from the developing world's point of view. However, such a regime would still leave open the possibility of additional countries developing

and deploying missiles above the 5,000 km INF ceiling. Further, a few developing country ballistic missile programs are related in part to arms races or tension with countries possessing ICBMs, for example, India's concern over China.

Option (C) calls for zero ballistic missiles (ZBM). Only a global ban on ballistic missiles would provide a comprehensive and non-discriminatory approach to elimination of the threat posed by ballistic missiles and ballistic missile proliferation. In addition, with the Cold War at an end, such a sweeping proposal might be the appropriate goal for the not too distant future. For such a ban to capture all the guided missiles that, although short-range, are "strategic" in their regional context, it would have to extend down to missiles with a 100 km range. Given the world's reliance on space, a ZBM plan obviously should permit unimpeded development of indigenous space launch capabilities, subject to thorough international verification of their non-weapons character. Differentiation of space-launch vehicles and prohibited ballistic missiles would clearly pose some challenges that are, however, involved in the other options as well.

In addition to preventing the proliferation of long-range missiles and eliminating short-range missiles already deployed, such a ban would: eliminate the Russian missile threat to the United States; decrease the possibility of accidental nuclear war; and reduce fears of preemption and pressures for escalation. For the United States and Russia, elimination of ICBMs and submarine-launched ballistic missiles (SLBMs) would mean an end to their strategic triads. Submarine-launched cruise missiles could still be used as necessary to guarantee against a surprise strike on a potentially vulnerable bomber force. If, in the timeframe involved, it was still considered necessary, the United Kingdom and France could deploy a limited number of cruise missiles on submarines, and all nuclear states, including China, could rely on aircraft for nuclear missions. (A global ban on land-based missiles only would be unacceptable to Russia and less compelling to the Third World.)

Recommendation:

Option (C). An initiative for ZBM would essentially pose for every government the central question of whether its security is best served by its acquiring ballistic missiles -- or by denying them to its neighbors. The combined strategic and anti-proliferation logic of a global missile ban, its dramatic quality, and its non-partisan appeal (the idea was first proposed by President Ronald Reagan at the 1986 Reykjavik summit) make this idea worth exploring. Many questions need to be considered, but implementing and verifying ZBM would be more feasible than many current controls on nuclear, chemical, and biological weapons. Existing technologies can detect any violation of a missile flight test ban, and procedures devised for the INF and START Treaties could be used to monitor rocket production facilities. Any of

the above options would necessitate an IAEA-like inspectorate, but the greater benefits of a ZBM regime would justify this cost. Involvement by Third World countries in such organizations is essential to their success.

Special Budgetary/Congressional/Diplomatic Considerations:

To the extent that ballistic missiles are eliminated, or scheduled to be eliminated, funding for strategic defenses could be reduced. Serious reductions in nuclear weapons, such as would result from a ZBM regime, will likely be necessary to persuade non-nuclear states to forego nuclear ambitions.

SATELLITE PROLIFERATION/ANTI-SATELLITE WEAPONS

Issue (first 100 days):

Should the United States proceed with the development and deployment of anti-satellite weapons, given the current security environment and the performance of space systems in the Gulf War?

Options:

- (A) Pursue a limited anti-ballistic missile (ABM) deployment at Grand Forks, North Dakota, which would provide a de facto limited anti-satellite (ASAT) capability.
- (B) Continue to develop a dedicated ASAT weapon under the current Army program, reorienting it toward the potential threat from developing country satellites.
- (C) Unilaterally halt development of a dedicated ASAT and refrain from selling sophisticated imaging satellites. Encourage other nations to follow a similar policy.
- (D) Pursue a world-wide ban on ASAT tests and use.

Background/Discussion:

Potential Third World surveillance capabilities provide new justification for the development of anti-satellite weapons. Advocates of the continued need for ASATs point to the possible use or purchase of satellite intelligence services by Third World countries. France is currently developing the Helios reconnaissance satellite, with a resolution of approximately 1 meter, slated for launch in 1994. Israel is reportedly working on intelligence satellites as well. By the early 21st century a number of other countries, including Brazil, India, and Japan, could also possess military reconnaissance satellites. Spain, the United Arab Emirates, and South Korea have all reportedly asked to purchase U.S. surveillance satellites.

The Army's Kinetic Energy ASAT is the Pentagon's current principal weapon under research to attack hostile satellites. This ground-based interceptor would destroy satellites by homing in on and colliding with them in low earth orbit. The technology is similar to the ABM hit-to-kill interceptor, which was first tested successfully in the 1984 Homing Overlay Experiment

and more recently in the Exoatmospheric Reentry Vehicle Interception System tests.

In the FY93 Defense Authorization Conference Report, Congress directed the U.S. Space Command to prepare new operational requirements for the Army Kinetic Energy ASAT program. It required that the program be reconfigured to address potential access to space by developing countries, rather than countering Russian satellites. The conferees noted that the performance of U.S. satellites in Operation Desert Storm demonstrated the value of data provided by space systems.

Option (A) would use an ABM system to provide a limited ASAT capability. The deployment of a single ABM site would provide the United States with an inherent anti-satellite weapon capability sufficient to meet any likely need. However, this course of action would make the existence of any ASAT capability contingent on the decision to go forward with the Grand Forks deployment, a condition that ties the ASAT program to a controversial program.

Option (B) entails the development of a dedicated anti-satellite weapon. The perceived threat from Third World space systems and the relatively lower cost of an ASAT program have been suggested as justifying the continued development of such a system even if a ground-based ABM system were not pursued. Some argue that ASATs are no longer destabilizing, since Third World countries are not likely to acquire them and could therefore not threaten U.S. satellites. However, ASATs intended to counter Third World satellites would certainly have capabilities against Russian space platforms. Russian fears of satellite vulnerability would not benefit stability, as Russia already has concerns over the loss of some of its early warning radar capabilities. An American ASAT program would provide new ammunition to Russian hardliners who are warning that the United States is taking advantage of Russian weakness. If the United States goes forward with ASAT deployment, it is possible Russia would respond by reinvigorating its own long-dormant ASAT program. The resulting vulnerability of U.S. space systems would clearly outweigh the benefits provided by a U.S. ASAT weapon.

Option (C) calls for unilaterally halting development and refraining from selling sophisticated space systems. While the threat to the United States from indigenously produced surveillance satellites is minimal, permitting the sale of a sophisticated reconnaissance satellite to the United Arab Emirates, as is currently being considered, would set a dangerous precedent that could justify future sales by other nations to states potentially hostile to the United States. The possession of such a satellite by the Emirates could enable other nations to acquire intelligence information the United States may not wish them to have.

Option (D) is to ban ASATs world-wide. While no ASAT capabilities currently exist outside of the moribund U.S. and Russian programs, a multilateral ban would create a norm against ASAT development by potential proliferators. The United States would get the most benefit from such a ban, given its heavy dependence on satellites. However, as ASAT proliferation is not currently a pressing issue, an international negotiation may not have merit now. If in the future the threat increases, a negotiated ban on ASATs could be undertaken.

Recommendation:

Option (C). Preventing the proliferation of this technology reduces the need for methods to counter its use. The potential sale of surveillance satellites to the United Arab Emirates should be reevaluated at the earliest opportunity, and any plans to move such satellites from the Munitions List to allow commercial sales should be carefully scrutinized. The sale of surveillance satellites should be evaluated in terms of national security concerns, not economic considerations.

Special Budgetary/Congressional/Diplomatic Considerations:

Congress has traditionally been reluctant to fund ASATs, and Army ASAT funding has declined in the last few years.

CHANGES TO THE ANTI-BALLISTIC MISSILE TREATY

Issue (1993):

What should be U.S. policy toward changes in the ABM Treaty?

Options:

- (A) Continue the efforts of the Reagan and Bush Administrations to modify the ABM Treaty to permit the deployment of multi-site land-based and/or space-based missile defenses (GPALS).
- (B) Reaffirm U.S. commitment to the treaty as signed and ratified but seek minor treaty clarifications on the unresolved issues of sensors and interceptor capabilities.
- (C) Attempt to reach agreement on joint missile defenses and early warning systems through a Global Positioning System (GPS).

Background/Discussion:

At the Bush-Yeltsin summit in June 1992, it was agreed that working groups would meet to explore opportunities for cooperative efforts on ballistic missile defense and early warning systems. During discussions of the High Level Group on missile defenses on September 21 and 22, the United States put forward a proposed protocol to the ABM Treaty that would: (1) permit a nation-wide defense of six ABM sites with 150 interceptors each; (2) loosen the restrictions on R&D of missile defenses; (3) remove a treaty ban on space-based sensors; and (4) define "strategic ballistic missiles" in such a way as to permit much more capable anti-tactical missile defenses. Another proposal would cause the treaty to expire after 10 years, so that the United States could circumvent the restrictions on space-based ABM interceptors.

The Bush Administration has portrayed Russian willingness to talk about cooperation in this area as tacit approval for proceeding with GPALS. Russia is clearly eager to give the appearance that it is willing to consider the U.S. proposals, since it is interested in improving its early warning network and in selling anti-tactical ballistic missile (ATBM) technology. However, Russia views its participation in more extensive cooperative missile defenses as a long-term idea, entirely contingent on joint development and sharing of technology. Bush Administration officials have been hesitant to endorse any collaborative efforts toward missile defenses that would involve sharing U.S.

technology; their desire for cooperative efforts has been limited to spending small amounts of the SDI budget to acquire Russian technology.

The Bush Administration has indicated that its cooperation in sharing early warning data and setting up a joint early warning center is contingent on revising the ABM Treaty. The leader of the Russian delegation to the talks, Deputy Foreign Minister Georgii Mamedov, has indicated that the Russian negotiators see the ABM Treaty as a "traditional pillar of strategic stability." Russian Defense Minister Pavel Grachev and other top officials have gone on record opposing any changes to the treaty and linking strategic arms reductions to continued U.S. compliance with the ABM Treaty.

Option (A) seeks modifications that would allow GPALS. The current policy is to seek changes in the treaty that would allow the deployment of the full GPALS architecture, making any agreements on joint early warning arrangements contingent on these broad revisions to the treaty. The U.S. proposal in recent discussions, although a departure from the Bush Administration's refusal to agree to any limitations on ABM deployments, would essentially enable the United States to go forward with the full range of ground- and space-based elements of GPALS. While Russia has an interest in reaching an agreement on a joint early warning arrangement to make up for the radar capabilities it could lose in the former republics, it is unlikely that it would agree to such a broadening of the ABM Treaty to achieve this goal, and it has consistently rejected this approach to date. Since Russia is unable to deploy a system similar to GPALS, there is no reason to expect it would agree to a unilateral U.S. deployment.

Option (B) would reaffirm the ABM Treaty and negotiate minor clarifications to the accord. The treaty is the cornerstone of the U.S.-Russian strategic relationship and should be kept intact. It would, however, be useful to clarify the provisions relevant to the distinction between ATBMs and ABMs, as well as between strategic and tactical ballistic missiles, and to clarify questions concerning some of the technologies that could be utilized in a single-site deployment. Foremost among these issues are the questions of permitted sensors and interceptors. These ambiguities also apply to tactical missile defense, an area in which it seems agreement can be reached. Russia is interested in exporting its ATBM technology, and compliance questions exist regarding the U.S. Theater High Altitude Area Defense (THAAD) program. It would be mutually beneficial to set these matters straight.

In addition, several large Phased Array Radars, once on the periphery of the USSR, are now on the territories of several republics of the FSU. Resolution of this technical infringement of the ABM Treaty should be sought.

Option (C) calls for agreement on a GPS. This system could include shared early warning information and multinational control over missile defenses. If the United States goes forward with plans to deploy space-based

interceptors and sensors, Russia would logically seek to devise some type of arrangement whereby control of these systems was under multinational supervision, so that the United States would not be able to dominate space. GPS is predicated on a range of space-based systems that are not likely to fit with future plans for SDI. Even if the Clinton Administration decided to continue to develop space-based SDI systems, it is difficult to foresee the United States sacrificing unilateral control of these assets.

Recommendation:

Option (B). Minor clarification of the ABM Treaty in the areas of mutual concern would be helpful in reasserting the relevance of the treaty. The United States should also continue efforts toward early warning cooperation, not linked to any other demands.

Special Budgetary/Congressional/Diplomatic Considerations:

Continued reductions of the Russian nuclear arsenal are closely tied to the preservation of the ABM Treaty. Budgetary projections do not support going ahead with the systems required for GPS or GPALS.



V. REGULATION OF CONVENTIONAL ARMS TRANSFERS

Coordinator

Andrew J. Pierre

Principal Contributors

Arms Sales: U.S. Policy and Practices	Lee Feinstein
International Restraints: The P-5 Talks	Andrew J. Pierre
United Nations Register of Conventional Armaments	Edward J. Laurance
Overcapacity and Downsizing in the Defense Industry: Conversion, Diversification, and the Role of Exports	Jacques S. Gansler
Foreign Assistance and Arms Transfer Restraint	Nicole Ball
The Former Soviet Union	Christopher Smart
The Middle East and the Persian Gulf	James P. Rubin
China	Richard Bitzinger
Asia-Pacific and South Asia	Catharin Dalpino

Additional Reviewers

Natalie Goldring
Michael Klare
Lora Lumpe
James Schear



ARMS SALES: U.S. POLICY AND PRACTICES

Issue (first quarter 1993):

What steps, if any, should the Clinton Administration take to provide an early indication of its intent to pursue restraints on U.S. arms sales and the international arms trade?

Options:

- (A) Continue the present policy of seeking to expand the volume and market share of U.S. arms exports to U.S. friends and allies, while seeking to implement transparency measures in the "Big 5" (China, France, Russia, United Kingdom, and United States) arms transfer talks and at the United Nations.
- (B) Signal Administration interest in arms transfer restraint by issuing general policy guidelines and goals for U.S. arms exports and initiating a review of domestic arms export oversight procedures.

Background/Discussion:

The Bush Administration, like previous U.S. administrations and other governments, has viewed arms sales as a legitimate instrument of foreign policy. Like other administrations, the Bush Administration has pursued arms sales to maintain regional balances and to support U.S. allies such as Israel, Saudi Arabia, and South Korea. In service of this policy, and to expand both the market share and volume of U.S. arms exports, the Administration has enacted subsidies, eased regulations, and softened export controls. As a result of these policies and the increased demand for high-technology conventional weapons in the aftermath of Operation Desert Storm, U.S. arms transfers to the developing world -- especially to the Middle East -- grew sharply.

The Bush Administration's efforts in conventional arms transfer controls were limited to establishing general rules of the road for arms transfers and to calling for "transparency" or openness in arms sales among the world's major weapons sellers. In addition, it has sought to limit transfers to certain countries identified as problem states to prevent an Iraq-style build-up. Even these modest efforts, however, have bogged down.

While recognizing the geopolitical, economic, and industrial trade-offs, it will be important to offer early signals to the Congress, industry, and the executive branch, as well as the other major suppliers, of the Administration's

intentions with respect to arms sales, especially where they can have destabilizing consequences.

Option (A) calls for continuing the Bush Administration policy. Under this approach, the Clinton Administration would continue to promote U.S. exports with an eye toward expanding the U.S. arms export market and displacing, to the degree possible, the main U.S. competitors. It could issue a restatement of the Eagleburger cable calling on U.S. embassies to provide support for defense marketing efforts overseas. The newly instituted Bush Administration waiver of "recoupment costs" for research and development (R&D) expenses could be extended to include sales of major defense equipment. Export-Import Bank or other government subsidies for arms sales overseas might be supported. Finally, the Clinton Administration could push the transparency talks among the Big 5 and the United Nations Conventional Armaments Register as the appropriate arms control steps.

This policy will support elements of the defense industry and protect a significant number of defense jobs in the short term. The policy will draw criticism from certain members of Congress and from the other major suppliers, who are already skeptical about Washington's commitment to arms sales restraint. It will contradict Clinton statements on arms transfer controls made during the campaign and the transition. In addition, it may have the adverse effect of encouraging industry to further delay industrial conversion efforts.

Option (B) calls for the Clinton Administration to announce a new arms sales policy early on. An appropriate time might be shortly before the next round of talks on arms transfer controls, which was planned to take place early in 1993 in Moscow. The policy statement could signal the importance the Administration attaches to the talks by proposing that they take place at the undersecretary level (lately they have been convened among assistant secretaries) or, preferably, by assigning a special representative to the talks, as is the case for other arms control negotiations. The policy statement should also build on Clinton's campaign and transition statements, declaring that the United States will make those arms sales it deems appropriate, but that such decisions will be based on concerns about technology transfer, arms control, regional security, impact on the recipient's economy, and the recipient state's human rights record, as well as on domestic economic factors. The statement should declare that the United States supports controls on arms sales to regions of tension through appropriate multilateral efforts and that Washington is prepared to take the lead in gaining agreement to implement the arms sales guidelines agreed by the major suppliers in London in 1991.

In support of this policy, the Clinton Administration should also announce a review of the U.S. arms transfer bureaucracy as it developed under the Bush Administration, specifically considering reorganizing the export control bureaucracy to emphasize export control rather than export promotion.

Arms control should be separated from arms promotion functions by reorganizing the Bush Administration's Center for Defense Trade, which now has authority for both. Embassy staff should be removed from arms marketing efforts by revoking the Eagleburger cable. Government subsidies for military contractors at air shows overseas would be ended. The present ban on Export-Import Bank financing of arms sales should be continued. The 3 percent fee the Defense Security Assistance Agency (DSAA) adds to the arms transfers it administers would be cut off and the DSAA required to be financed solely through a Department of Defense line item or through levies on defense contractors. (Alternatively, the 3 percent fee could be raised but used to finance United Nations peace-keeping or non-proliferation efforts.)

This approach would be welcomed by certain members of Congress and would send a strong signal to the other major weapons exporters, giving a strong boost to the sputtering arms transfer talks. It would enact changes in the U.S. bureaucracy that need to be undertaken whatever the prospects for success in the multilateral arms control talks. It will also raise concerns with the defense industry. This may not be all bad, as industry must be encouraged to pursue alternatives to arms exports and to take the Administration's conversion goals seriously. To soften industry opposition, it should be extensively consulted in any policy review.

Recommendation:

Option (B). Send an early signal of a shift in U.S. policy to improve the prospects for success at the stalled talks among the major suppliers and to encourage military contractors to pursue alternatives to exports.

INTERNATIONAL RESTRAINTS: THE P-5 TALKS

Issues (February/March 1993):

Should the United States seek an early meeting of the P-5, the Big Five suppliers of conventional arms, so as to restart the negotiations that were halted after the Chinese boycott following the announcement of the sale of F-16s to Taiwan? Should the United States support continuation of the talks even if China refuses to participate?

Options:

- (A) Press for an early meeting of the P-5, including China, to continue the discussions on outstanding issues such as the prior notification of sales, weapons to be included, and the geographic region to be covered. Reappraise the recent spate of sales. Examine ways to strengthen the P-5 process.
- (B) Proceed with a P-4 process if China maintains its boycott. Provide incentives for China to rejoin the talks and to participate more fully in multilateral arms control in general. Consider inclusion of other significant suppliers and eventual discussions with major recipients.
- (C) Allow the P-5 process to die. Make the United Nations International Armaments Register the focal point of conventional arms restraint.

Background/Discussion:

After the Persian Gulf War, the United States proposed a series of meetings among the five largest arms suppliers to the Third World (who account for 90 percent of the transfers) for the purpose of developing some multilateral restraints on "destabilizing" transfers. This followed Congressional proposals for such talks, demands for a moratorium on all transfers to the Middle East, and various suggestions for arms restraint from France, the United Kingdom, Canada, and other nations. The G-7 meeting in London in July 1991 also called for multilateral talks.

Three plenary meetings of the P-5 have been held to date. At the first (Paris, July 1991), the P-5 agreed to work toward modalities for consultation and information exchange on arms transfers, with priority to the Middle East, and agreed to review their respective national systems of controls so as to

encourage restraint. At the second round (London, September 1991), the P-5 agreed to inform each other about the transfer of seven categories of arms to the Middle East (tanks, armored combat vehicles, artillery, military aircraft and helicopters, naval vessels, and certain military systems); they also agreed to global guidelines designed to avoid transfers that would contribute to regional instability. At the third round (Washington, D.C., May 1992), little progress was made. There were substantial disagreements on which weapons systems were to be covered under the above categories, on the geographical definition of the Middle East as a zone for restraints, and, most importantly, over the question of prior notification, or the point at which a country would be obliged to notify the others of a sale or transfer. The fourth round, scheduled for Moscow in the fall of 1992, was postponed.

Option (A) entails pressing for an early meeting of the P-5 to avoid a further loss of momentum. An effort would be made to expand the geographical base of information exchange to all regions so as clearly to include the troubling Russian/Ukrainian and Chinese sales to Iran and East Asia. Understandings on the weapons data to be exchanged would be finalized. The recent spate of sales by P-5 countries could be reappraised: the Russian sales to Iran of Mig 29s, T-72 tanks, and diesel submarines, and potential sales to China of Mig 31s; Chinese sales of missile technology to Iran and Pakistan; U.S. sales of 150 F-16s to Taiwan and 72 F-15s to Saudi Arabia; and the French sale of 60 Mirages 2000-5 to Taiwan. Agreement on prior notification of all sales would be sought so as to provide an opportunity for members of the P-5 to raise objections or ask for justification of questionable sales. This would have the added benefit of putting pressure on the Russian and Ukrainian Governments to strengthen their weak -- in the latter's case really non-existent -- export controls. Some linkage with the parallel, newly started process of creating the United Nations International Armaments Register would be established so as to enhance credibility in the developing world.

Option (B) says that in the event China maintains its boycott, the other four nations should move ahead with a meeting while holding the door open for Beijing to return. Most of the issues in **Option (A)** should be addressed. In addition, a review might be undertaken of the recent sales of 150 F-16 and 60 Mirage 2000-5 aircraft to Taiwan with the possibility of reducing their size in exchange for greater cooperation from China on arms control efforts in general, including an end to Chinese missile technology deals with Iran. The P-5 or P-4 meeting might lay the groundwork for changes in its current format, such as including an additional number of arms supplier countries and initiating discussions with some of the major recipient nations. Possible links between the P-5 negotiations and the Middle East multilateral arms control talks might be considered.

Option (C) allows the P-5 process to become moribund or to be dropped altogether. The United Nations International Armaments Register

would be pushed as the major arms restraint endeavor, recognizing that it only calls for transparency and makes no effort to provide any real controls. This would result in Congressional and public criticism that the Clinton Administration is doing nothing significant about the proliferation of conventional arms. In addition, egregious weapons transfers, such as Russian and Chinese sales to Iran, would escape adequate scrutiny.

Recommendation:

Option (A). If not feasible, move quickly to **Option (B)**, which would keep the door open for China to rejoin. A sense of urgency is needed to prevent destabilizing transfers. To leave conventional arms out of the Clinton Administration's broader non-proliferation effort would be a serious mistake.

UNITED NATIONS REGISTER OF CONVENTIONAL ARMAMENTS

Issue (March/April 1993):

Should the United States fully support and comply with the United Nations Register of Conventional Armaments by April 30, 1993, as requested by the United Nations Transparency in Armaments resolution? Should the United States encourage maximum participation by others, especially Iran and other countries of proliferation concern, as a complement to multilateral export control efforts?

Options:

- (A) *Minimum compliance.* Given the poor compliance of other states with previous United Nations efforts to have states report military information (such as military expenditures), the United States should submit the requested arms export and import data at the minimum level of transparency congruent with the relevant General Assembly resolutions.
- (B) *Full compliance.* To complement and enhance current efforts to stem the flow of dual-use equipment and advanced conventional armaments to states of proliferation concern, the United States should report arms exports and imports for 1992 at the maximum level of transparency, with the information to include the model and type of equipment delivered.
- (C) *Full compliance plus promotion.* The United States should comply fully with the register and take the lead in promoting its use for confidence- building and early warning of destabilizing build-ups of armaments in states of proliferation concern.

Background/Discussion:

After the Iraqi invasion of Kuwait revealed that trade in advanced conventional armaments can lead to negative consequences for the United States, the United States and other countries put forward proposals for controlling the trade in arms. The permanent members of the United Nations Security Council began meeting in July 1991 to develop some multilateral restraints on destabilizing transfers of arms. At the same time, the European Community and Japan put forward formal proposals for an arms trade register as a first step in dealing with this aspect of the proliferation problem. In December 1991 the United Nations General Assembly, by a vote of 150-0

(Iraq and Cuba abstained, Syria and China did not vote), approved the Transparency in Armaments Resolution that established a process by which member states would gradually make transparent the levels and types of conventional armaments exported, imported, and produced, with the information eventually to include weapons of mass destruction. The first step in the process was a Register of Conventional Armaments to which member states are requested to submit data in April of each year on the number of items exported or imported (deliveries) the previous year, by country, for seven major types of armaments: battle tanks; armored combat vehicles; large caliber artillery; combat aircraft; attack helicopters; warships; and missiles and their launchers with a range of at least 25 kilometers. States are also to submit for the register background information on their military holdings, procurement through national production, and relevant policies. Data submitted will be available to member states and made public. The first submission of data is due April 30, 1993, a deadline that will require preparations by the United States in February and March 1993.

As of December 1992, the United Nations had adopted by consensus the report of the panel, which outlines the procedures for reporting data on exports and imports. The register was enthusiastically endorsed in the final declaration of the heads of state at the Security Council summit meeting of January 31, 1992. The United Nations Secretary General will promote compliance with the register by setting up five regional workshops in February and March 1993. Meanwhile, arms trade *control* efforts have stalled. The U.S. sale of F-16s to Taiwan led China to boycott further P-5 talks, and the next meeting was postponed. Increasing criticism of U.S. sincerity in dealing with this proliferation problem was heard. Concerns about Iran and other problem states acquiring advanced conventional armaments and dual-use equipment that might contribute to the development of weapons of mass destruction have led the United States to mobilize a consensus among the G-7 states to adopt multilateral controls on exports to these states. This effort has been resisted by several states with major trading relationships with Iran, as they do not yet see concrete and overt signs of destabilizing levels of armaments in Iran.

Option (A) allows flexibility in the reporting procedures for states regarding how much information is submitted on arms transfers. The United States should meet its obligations, as agreed to in the various stages of developing the register, by reporting exports and imports at a minimum level of transparency. This approach would ensure that the United States not be blamed for the failure of the process should key supplier and recipient states fail to report. It would confirm that the United States does not view its exports as destabilizing. Most of the information submitted is already public, since the United States releases more information on its arms exports than almost any other state. Obstacles to reporting include the assertion that full

disclosure may create some national security concerns as well release proprietary information on commercial transactions.

Under **Option (B)**, the United States should maximize the amount of information submitted, especially with respect to the model, type, and capabilities of the equipment exported. This approach would set the standard for other states and could be used as leverage in succeeding years with those states of proliferation concern and their suppliers, which may not have fully disclosed their transfers. The United States can afford to adopt this policy, since no major military threats to its interests appear to be imminent during the first two years of reporting. A panel will convene in 1994 to assess the register and its expansion.

Option (C) calls on the United States to comply fully with all aspects of the register, including the provision of as much background information on arms production and transfers as possible. It also actively promotes the register's use as a confidence-building and early warning mechanism. The United States should set the standard for a new approach to international security to *complement* the multilateral and international export control regimes. President Clinton could significantly increase the likelihood of states' submitting data by announcing such a U.S. policy in his first speech to the United Nations. Such an announcement would have the advantage of expressing U.S. concern about destabilizing accumulations of armaments while respecting the sovereignty of states. In addition, it would optimize the chances for transparency to expand to include weapons of mass destruction, as called for in the various resolutions that established the register.

Recommendation:

Given the current lack of credibility of U.S. efforts to control the proliferation of advanced conventional armaments, **Option (B)** and particularly **Option (C)** would send an immediate message that the United States is serious about an international effort to prevent those armed conflicts that result from destabilizing accumulations of armaments. This policy should be pursued *in conjunction* with and not in lieu of other efforts at multilateral arms export control, so that the register not be seen as an end in itself. A U.S. policy that increases international transparency in armaments will provide the basis for keeping the possibility of arms export controls alive.

OVERCAPACITY AND DOWNSIZING IN THE DEFENSE INDUSTRY: CONVERSION, DIVERSIFICATION, AND THE ROLE OF EXPORTS

Issue (1993 and beyond):

Can defense industry conversion play a significant role in reducing the exports of arms? If so, what government actions should be taken to speed up conversion of the defense industry?

Options:

- (A) Aggressively assist U.S. defense firms in their foreign military sales efforts to help U.S. employment and maintain the defense industrial base. Continue the present policy of allowing the free market to achieve the necessary defense industry downsizing and conversion.
- (B) Supplement free market operations by creating broad incentives for defense industry conversion (for example, through taxes and training) so that, over time, firms are less dependent on foreign military sales.
- (C) Further accelerate defense industry restructuring through broad-based incentives as well as Department of Defense (and Congressional) initiatives to remove regulatory and legislative barriers to defense industry conversion and through specific programmatic actions such as encouraging dual-use R&D.

Background/Discussion:

During the 1980s, defense-oriented plants invested heavily, spurred by the large arms build-up. With the current downturn in the defense budget, they have enormous excess capacity (a world-wide problem). In addition, the increasing regulation of the industry during the 1980s forced a separation of these defense plants from the rest of the U.S. economy, which is now making it much more difficult for them to convert to civilian business. Finally, the current and projected high number of lay-offs have created significant pressure -- with considerable recent success -- for increased foreign military sales of advanced weapon systems.

Option (A) would continue the present policy: let the free market "adjust to achieve the required industrial structure," as the Bush Administration advocated. Supporters of this policy contend that the market provides maximum efficiency, effectiveness, innovation, and responsiveness. Critics of this view contend that there is no free market in the defense sector,

where there is usually one buyer, 100 percent regulation of the market, and only a few (often just one) suppliers in each area. As a result, a laissez-faire approach in which the market determines restructuring is neither rapid nor efficient -- and in the absence of a free market, domestic politics becomes the dominant market driver.

Option (B) would create broad incentives for conversion of the defense industry. It would establish a long-term vision toward which the nation and the defense industry could jointly move. Broad government incentives, such as conversion and tax incentives, would be used to speed up and direct positive market adjustments. The societal impact on the labor force would be reduced through effective training programs backed by government incentives. These steps, however, may not be sufficient -- especially as long as the government continues to maintain the current legislative and regulatory barriers to industrial conversion (examples are specialized accounting, unique procurement practices, and military specifications).

Option (C) speeds conversion of the defense industry up by having the government take a proactive role, assisting firms through the transition and removing the barriers to the transformation. A shift toward civil/military integration would be encouraged wherever possible. This option must encompass the following measures (in priority order): (1) dual-use R&D; (2) dual-use operations (engineering, manufacturing, and support); and (3) dual-use equipment (particularly at the component, materials, software, and manufacturing technology levels). To work, such a broad initiative will require an extremely proactive role by the Department of Defense. If it can be achieved, however, this policy will result in a very dramatic transformation of the U.S. defense industry over the next four years that will significantly reduce the need for the industry to focus on foreign military sales for its long-term survival. The transformation will be extremely difficult to implement, as it will have to overcome enormous institutional resistance, and it will require strong support from Congress.

Recommendation:

Option (C) is essential if the United States is to have a strong security posture at a significantly lower cost and if world-wide arms proliferation is to be reduced. A change in the way defense business is accomplished and a restructuring of the U.S. defense industry -- so that civil/military integration becomes a reality and foreign military sales are not the salvation of the industry -- must be elevated to the number two priority in the Department of Defense, second only to the need to restructure the armed forces and strategy for the post-Cold War era.

FOREIGN ASSISTANCE AND ARMS TRANSFER RESTRAINT

Issue (January-March 1993):

The fiscal year 1994 (FY94) budget will propose economic and security assistance programs for countries spending heavily on their military establishments, including conventional arms. Should the Clinton Administration cooperate with Germany and Japan to design aid policies that will help these aid recipients reduce their conventional arms procurements?

Options: In proposing its aid package for FY94, the Administration could:

- (A) Maintain existing policy as expressed in section 620(s) of the Foreign Assistance Act of 1961 (FAA), which requires military spending, foreign exchange outlays on arms, and the procurement of advanced weapons be taken into account when allocating aid.
- (B) Include detailed assessments of the economic and security impact of arms transfers in aid decisions. Where appropriate, link aid to changes in arms trade and procurement policies. Use bilateral aid and votes in international financial institutions to support: transparency; threat- and resource-based procurement; conflict resolution; and collective security arrangements. Incorporate the guidelines into legislation at the earliest possible date.
- (C) Same as **Option (B)** plus: demonstrate U.S. commitment to arms trade restraint by reviewing and significantly reducing the Foreign Military Financing program, instructing U.S. embassies not to promote arms sales beyond the security needs of importing countries, and prohibiting arms transfers to countries grossly violating internationally recognized standards for human rights.

Background/Discussion:

Until recently, U.S. foreign aid was often allocated to enable certain allies to spend more on the military than domestic resources alone permitted. *Security assistance* grants and loans subsidized U.S. weapons (Foreign Military Financing program), supported personnel training under the International Military Education and Training program, and provided budget and balance-of-payments support under the Economic Support Fund. The main recipients of *economic aid* were major developing country allies with close ties to the United States. These economic and security assistance

programs were considered an integral part of advancing U.S. security interests abroad.

East-West rivalry also affected lending by many members of the Organization for Economic Co-operation and Development (OECD), the World Bank, and the International Monetary Fund. In general, it prevented funders from seriously considering the economic and political burden imposed by high military budgets, arms procurement, proliferation, war as a means of resolving disputes, and politically active armed forces.

With the end of the Cold War, the strategic rationale for these policies no longer applies. Containment is no longer a factor in U.S. foreign policy and should not determine the structure and goals of U.S. aid and policies. Again following the Cold War as well as the Gulf War, and spurred by the growing global shortage of capital, the international lending community has increasingly recognized that promoting participatory democracy, supporting good governance, and de-emphasizing military solutions to conflicts within and between states must be closely linked. The World Bank, the International Monetary Fund, and several bilateral donors are accordingly supporting reforms of the military sector, such as demobilization, conversion, and transparency. Germany and Japan now take criteria such as trends in military spending, arms imports, and arms exports into account when allocating aid and are encouraging other members of the OECD Development Assistance Committee to adopt similar criteria.

Option (A) -- the current policy -- maintains a clear separation between U.S. aid and arms transfer policies. It does not impede the ability to use arms transfers to support strategic objectives, and it holds open the possibility that excessive use of domestic financing for arms procurement could result in lower U.S. aid flows, although section 620(s) has yet to be seriously applied.

Option (B) -- incorporate arms trade criteria into aid decisions -- provides a clear signal that U.S. foreign aid objectives will reflect the new international political environment. It reorients U.S. foreign assistance programs to support enhanced regional and domestic stability, representative government, and less diversion of scarce financial resources to economically unproductive uses. It also aligns U.S. foreign assistance policy with that of the major G-7 partners, especially Germany and Japan, and it thereby fulfills a necessary condition for establishing guidelines within the OECD Development Assistance Committee on using aid to support lower military spending and controls on conventional arms transfers and for influencing the policy of the World Bank and the International Monetary Fund.

Option (C) -- combine a new orientation for aid policy with a review/downsizing of the Foreign Military Financing program and stronger linkage between human rights and arms transfer policies -- provides a clear signal regarding new U.S. aid objectives and tangible evidence of U.S.

seriousness about controlling the conventional arms trade. It incorporates the same points as **Option (B)**, plus it places pressure on France and the United Kingdom to coordinate aid and arms trade policies. Opposition by recipients of aid to a linkage between aid and arms trade is undermined by the willingness of the United States to incur costs associated with lower arms exports.

Recommendation:

Option (C). U.S. aid policy must be revised to reflect the changes in international political relations. The credibility of U.S. efforts to limit arms procurement by aid recipients will be greatly enhanced if the United States demonstrates a willingness to incur costs itself.

THE FORMER SOVIET UNION

Issue (spring 1993):

How should the United States try to restrict exports of conventional arms by the states of the former Soviet Union (FSU)?

Options:

- (A) Formally tie Western aid to strict adherence to carefully defined guidelines for arms exports based on the principles established by the P-5. Punish any breach by withholding aid.
- (B) Begin discussions on developing common approaches to regional conflicts and complementary strategies for arms exports. Link Western aid informally to efforts by governments of the FSU to withhold destabilizing arms from volatile regions.
- (C) Continue aid to develop democratic institutions and encourage market reforms. Rely on international public opinion to influence increasingly open societies to restrain arms exports by their governments.

Background/Discussion:

The military/industrial complex remains one of the most valuable economic assets in the states of the FSU. Faced with a deepening economic crisis, ballooning budget deficits, and spiralling inflation, these fledgling governments have slashed defense procurement, a policy that has left the managers of weapons production enterprises scrambling to find new civilian products and new military customers. The main potential exporters are Russia and Ukraine, which have accounted for 80 percent and 13 percent respectively of Soviet weapons production. Russia's defense procurement alone shrank in 1992 to about one-quarter of its 1991 level without accounting for the rapid inflation in industry, and President Boris Yeltsin has said his government will actively pursue international weapons sales to ease the blow to Russian manufacturers. In spite of grandiose claims about the potential for new income, Russia's performance has been well below expectations so far, with only \$3 billion in sales reported in 1992, compared with \$7.8 billion in 1991. In part, this decrease reflects reduced international demand and the fact that the Soviet Union's traditional "buyers" never actually "paid" for the weapons delivered. It is also a consequence of a disintegrating industrial base, which complicates even profitable production. Ukraine faces the additional handicap of producing mostly intermediate components; it depends heavily on Russian

cooperation to make exportable systems. Still, even a few relatively small sales can destabilize the balance among regional rivals. The \$2.2 billion in sales this year to China, Iran, and India are worrisome. Beyond these officially approved sales, regional governments and military organizations throughout the FSU have entered the world arms market on their own, selling stocks from the extensive arsenal of the former Soviet armed forces. Russian Federation officials vow strict export controls, but Moscow's fraying administrative controls make enforcement difficult.

Option (A) -- strict punitive measures for destabilizing exports of arms -- would probably prove counterproductive. While Western aid will probably only have a marginal impact on the success of reforms in the FSU, what little help there is will only hurt efforts to build democracy and markets. Moreover, such linkage by Western countries will fuel the arguments of Russian nationalists, who already denounce President Yeltsin as a puppet of Western governments. Many also see the United States as being afraid of real competition from Russian arms manufacturers. Washington's attempts to block Russia's sale of rocket engines to India earlier this year were widely denounced as hypocritical.

As to **Option (B)**, Russia and its neighboring states are engaged in a wrenching debate about their national identities and international interests. The United States should enter discussions to identify common approaches to regional conflicts. Russian cooperation could be highly valuable, for example, in managing the emerging rivalries in Northeast Asia, Southwest Asia, and the Balkans. Common strategies designed to limit arms exports to these regions could then follow in discussions among the P-5, which is next due to convene in Moscow. In the interim, informal warnings that tie aid to such cooperation can help focus the attention of government leaders on an issue that may otherwise seem peripheral amid their economic and political crises.

With respect to **Option (C)**, the history of the international trade in arms shows that it is remarkably immune to the pressures of public opinion. This problem is even more acute in the FSU. First, public opinion is not well-articulated and influences government behavior in unpredictable ways. Second, it is not clear the public is nearly as concerned by the international implications of arms sales as it is by the need to find gainful employment for industrial enterprises.

Recommendation:

Option (B) offers the best hope to prod the former Soviet republics into cooperating without engendering their resentment.

THE MIDDLE EAST AND THE PERSIAN GULF

Issue (1993):

Should the United States, in conjunction with the other major arms suppliers, place a high priority on limiting the sale of conventional arms to the Middle East and the Persian Gulf?

Options:

- (A) No, but remain vigilant about the nature of Iran's build-up.
- (B) Yes, and push hard immediately for supplier-imposed binding limits. Strongly urge the Middle East countries to develop a plan for regional demand-side arms control.
- (C) Yes, but by using the mechanisms of the P-5 talks and the Middle East arms control talks. Propose specific Middle East security arrangements, providing benchmarks against which the Iranian, and eventually any Iraqi or Syrian, build-ups can be evaluated, with limits imposed later if necessary. In addition, show unilateral restraint in U.S. arms sales policy where possible.

Background/Discussion:

The Iraqi military build-up and subsequent invasion of Kuwait, both made possible by the international arms trade, provide clear proof of arms sales policy gone awry. Although the specific case of Iraq implicated the Soviet Union first and foremost, it also involved French exports and U.S. financial assistance. Western leaders defended their role in arming Iraq by arguing that they faced a Hobson's choice -- strengthening Iraq or risking Iranian domination of the Persian Gulf region. A logical framework based on the notion that the "enemy of my enemy is my friend" may, however, make less sense in the post-Gulf War/post-Cold War period, when the major powers have the potential to work in concert, and to benefit from, a favorable Mideast power structure in which Israel is strong and both Iran and Iraq are fairly weak.

In the immediate aftermath of the Gulf War, then-Secretary of State James Baker and others recognized these realities and suggested various types of limitations on arms sales to the Middle East. On the other hand, Defense Secretary Richard B. Cheney emphasized the importance of continued U.S. arms sales to friends in the region as a means of enhancing stability. The

resulting U.S. policy of increased sales to the region looked hypocritical to many of the other major weapons suppliers. These suppliers also felt very strong economic imperatives to sell arms and found their sales to Iran and Syria to be as legitimate as U.S. sales to Saudi Arabia.

An undercurrent of concern with large arms sales prompted several new proposals for arms sales restraint. In Congress, a number of plans were put forward for a temporary moratorium on arms transfers to the Middle East. Other proposals called for an effective freeze on the inventories of major weapons in each Mideast country. Future sales would be allowed only if older equipment was eliminated on a one-for-one basis. This approach is practical but may not be sufficiently ambitious for a region where arsenals are already far too big. In September 1992, a Congressional Budget Office study examined several other types of supplier-imposed limits. Most notably, the study envisioned a regime under which combined imports of major weapons to each principal Mideast country from all sources could not exceed \$700 million in effective value per year. Suppliers would otherwise be free to compete for the markets, sharing information with each other to facilitate detection of non-compliance. Such a supply-side approach places strict limits on imports. However, it would be challenging to negotiate and could be politically offensive to some Mideast countries.

Option (A) does not call for pursuing new arms control measures but for remaining vigilant about Iran. This policy is essentially what the Bush Administration has been pursuing. By following it, and simultaneously making large arms sales, the United States would be squandering a unique opportunity to develop serious arms transfer restraint. The ironies of U.S. policy have not been lost on other suppliers, who tend to view Washington's definitions of "stabilizing" and "destabilizing" transfers as arbitrary and self-serving.

Option (B) attempts to limit arms sales through a binding cartel arrangement. This approach, despite certain drawbacks, may be an effective way to limit Mideast arms build-ups at a time when the security situation in the region has improved dramatically. Proposed limits might cover at least part of the sale of F-15s to Saudi Arabia retroactively, a situation that would regain some moral high ground for the United States and enhance the prospects for successful negotiations. This option may be considered too ambitious, however. In addition, prevailing political circumstances in the region may make such a plan premature.

Option (C) calls for beginning serious discussion of arms limits in the P-5 talks and the multilateral Middle East arms control talks and for showing unilateral restraint where possible, and encouraging other suppliers to do the same. This approach would move in the direction of **Option (B)** without appearing politically unrealistic. With it, the United States could use the P-5 talks and Mideast arms control negotiations to raise some of the ideas mentioned above. This approach would help forestall a build-up in Iran or in

Iraq such as occurred in the 1980s. Meanwhile, the United States could show restraint by trying to get Saudi Arabia and other U.S. arms recipients in the region to buy less threatening and less expensive equipment. A particular concern is the transfer of advanced-technology strike aircraft.

Recommendation:

Start with **Option (C)** in 1993 but be willing to move on to **Option (B)** should circumstances among suppliers and among recipients in the region permit.

CHINA

Issue (first quarter 1993):

What, if anything, should the United States do to stem destabilizing transfers of conventional arms by China to the developing world?

Options:

- (A) Do nothing, since Chinese arms sales are relatively small and declining, China has recently strengthened its adherence to arms control regimes, and the low-level technology of most Chinese weapons limits the prospects for arms sales.
- (B) Encourage China to adopt multilateral arms control aims through its return and full participation in the P-5 talks. At the same time, explore with other supplier nations, and with China, options for limiting the transfer of military technology that could result in subsequent exports of destabilizing weapons to other countries.
- (C) Link most favored nation (MFN) status to future Chinese restraint on conventional, as well as nuclear and ballistic missile, arms transfers.

Background/Discussion:

Beginning in the 1980s, China emerged as a major exporter of arms to the developing world. China is not only one of a handful of "full-service" suppliers of military material, offering land, sea, and air systems for export, but it has also been willing to sell potentially destabilizing weapons at very reasonable prices to just about any country. Iran, for example, recently received Chinese missile-building technology. For these reasons, Chinese arms transfers have been viewed with particular strategic concern.

At the same time, Chinese conventional arms transfers should not be viewed with too much alarm. China, although ranked fifth by some indices in overall arms sales to the developing world, accounts for less than 5 percent of this market. Moreover, Chinese arms sales have declined dramatically in recent years as a result of increased competition and cost-cutting by other nations and the removal of Iraq from the arms sales market. China has also signed the Nuclear Non-Proliferation Treaty (NPT), participated until recently in the P-5 talks aimed at limiting arms transfers to the Middle East, and pledged to adhere to the guidelines of the Missile Technology Control Regime (MTCR).

More important, the technological backwardness of most Chinese weapons has both limited their battlefield effectiveness (and therefore their threat potential) and begun to affect sales as well. Furthermore, China's military R&D infrastructure seems incapable of making progress by itself in many areas of weapons modernization. This built-in "structural disarmament" may be the most effective barrier to expanded Chinese arms transfers.

Recognizing this possibility, China has aggressively sought foreign technology to modernize its arms industry, which would naturally aid China's arms exports. Although not as successful as China would have liked, it has received considerable past technological assistance from the United States, the United Kingdom, France, and Italy. Israel has also served as a critical conduit of technology, both Israeli and Western, especially since the Tiananmen Square incident. Russia and, possibly, Ukraine have sold advanced weaponry to China and, more important, may become suppliers of ex-Soviet defense production expertise and technology, which would enable China to leapfrog ahead several generations in military hardware. Potential suppliers to China include Slovakia and South Africa, possessors of considerable weapons technology.

Option (A) -- do nothing -- essentially relies on market forces and the strength of international regimes to govern Chinese arms transfers. However, it ignores potential progress in Chinese arms modernization that could make Chinese weapons more appealing and the probability that China will continue to test the limits of the control regimes.

Option (B) seeks to draw China back into the P-5 talks by underlining the importance of limitations on arms transfers to achieving and maintaining peace and stability in regions such as the Middle East, South Asia, and East Asia. The wider question of how to facilitate transfers of benign technologies without their resulting in undesirable weapons proliferation can be explored with potential exporters of advanced military technology and, in a non-discriminatory manner, with China.

Option (C) denies MFN status to China if it pursues irresponsible or destabilizing arms transfer policies. However, psychologically satisfying as this move might be for many, it probably amounts to an overreaction and could even backfire on the United States by causing China to withdraw from all non-proliferation efforts.

Recommendation:

Option (B). This approach restricts potentially destabilizing arms modernization programs that rely on technology transfers. As a short-term

run-up to such an initiative, the Clinton Administration should commission the non-proliferation offices of the Departments of State and Defense and of the National Security Council to draft a report on the full range of current and likely technology transfers, both U.S. and foreign, that might have a direct or indirect effect on Chinese arms modernization.

ASIA-PACIFIC AND SOUTH ASIA

Issue (second quarter 1993):

Since Asia is the second largest and the fastest growing market for conventional arms, should the United States actively promote arms restraint in the area? If so, should it work through existing regional organizations -- for example, the Association of Southeast Asian Nations (ASEAN) and the South Asian Association for Regional Cooperation (SAARC) -- or should it establish a new process for this purpose?

Options:

- (A) Work through existing regional organizations. Introduce arms control to the agenda of the ASEAN Post-Ministerial Conference in July. Urge that particular attention be paid in the Post-Ministerial Conference to Russian and Chinese arms sales in the region. Recommend that China and Russia's entry into the Post-Ministerial Conference as dialogue partners be linked to a reduction in arms sales to the region. Encourage SAARC to develop a security dialogue similar to that under ASEAN, eventually adding an arms control element.
- (B) With the aim of establishing a Conference on Security and Cooperation in Europe (CSCE)-type process for Asia, press Japan to initiate a comprehensive regional dialogue on arms control.
- (C) Do nothing, since the Asian arms races stem from a combination of factors that would be difficult for an external power to address. Argue that restraining the arms trade will depend upon resolving major political conflicts in the region and upon Asian domestic economic and political conditions.

Background/Discussion:

Second only to the Middle East in the volume of sales, the conventional arms trade is growing more rapidly in Asia than in any other area. Of greatest concern is the arms race among the ASEAN countries in Southeast Asia, where a number of factors have raised arms purchases to unprecedented levels: a perception that the U.S. security presence is diminishing; the emergence of local and regional conflicts with the end of the Cold War; rapid economic growth; modernization of the defense sectors; and military corruption. In Northeast Asia, uncertain relations between China and Taipei, along with the

aggressive sales policies of the major suppliers, maintain a competitive environment for arms sales in the region. Indeed, China's emergence as a significant producer of arms and its reluctance to restrain potentially destabilizing transfers create insecurity in much of Asia. The level of arms trade in South Asia is lower by comparison, but the potential for conflict -- particularly between India and Pakistan -- is a constant motivation to keep purchases as high as national budgets will allow. However, since Russia now requires that India purchase arms with hard currency, and the Pressler Amendment restricts U.S. arms sales to Pakistan, the pace of arms acquisitions in that region has slowed for the moment.

Formal arms control agreements in Asia are a distant goal at best, and progress toward them will be incremental and halting. For the immediate future, "soft" efforts, such as dialogues and confidence-building measures, are the most realistic objectives. Until recently, however, even these were beyond reach because Asia lacked regional mechanisms for common security problems. The only comprehensive East Asian organization -- the Asia Pacific Economic Cooperation Committee -- has been mired in trade and economic disputes, and ASEAN has seemed content to remain a loosely configured political alliance.

In 1992, however, ASEAN adopted a security dialogue, paired with an economic agenda to promote an ASEAN Free Trade Association (AFTA). Equally significant, ASEAN invited representatives from China, Russia, and Vietnam to its foreign ministers' meeting. This invitation has opened the door to adding these countries to the Post-Ministerial Conference group of official ASEAN dialogue partners, which are the United States, Japan, Canada, Australia, New Zealand, South Korea, and the EC. Myanmar (Burma) has also indicated an interest in joining the Post-Ministerial Conference group process. In South Asia, establishment of SAARC in 1986 marked the first such regional organization, although no security issues have been placed on the agenda as yet.

Option (A) -- work through existing regional organizations -- would build upon the only active security dialogue in the region. The ASEAN Post-Ministerial Conference group contains both supplier and recipient countries. ASEAN's attention to common economic goals through AFTA would underscore the economic benefits of arms control. Moreover, ASEAN's attempts to resolve some regional conflicts -- such as the Spratley Islands -- would support arms control, and vice-versa. In the short run, however, this option is more likely to advance arms control in Southeast Asia than in Northeast Asia. Although it is unlikely that SAARC would entertain a similar proposal at this time, successful treatment by ASEAN would be a positive model.

Option (B) -- promote a comprehensive regional arms control dialogue led by Japan, with the CSCE as a model -- calls for an all-regional effort to

ensure that the key actors are included from the start. Urging Japan to lead this effort would take advantage of its economic influence in Asia and support the long-term U.S. goal of encouraging it to assume greater responsibility for security in the region without remilitarizing. However, China, already rankled by Japan's pressure on Russia to halt arms sales to China, is likely to oppose any region-wide effort initiated by Japan. This option could also exacerbate underlying tensions between Japan and the Korean peninsula.

Option (C) -- do nothing -- recognizes that the Asian arms races spring from a multiplicity of factors -- strategic, economic, and political -- on both the regional and domestic levels. However, arms races themselves contribute to instability in the region. As the United States gradually reduces its forces in Asia, it is both natural and necessary to promote arms control to avoid the perception of a power vacuum.

Recommendation:

Option (A). Working through existing regional frameworks would ensure that arms control was perceived as an Asian solution to an Asian problem, a perception that would place it in the most favorable political context. Security relations between the ASEAN countries are essentially cooperative rather than competitive, despite some specific bilateral disputes, and slowing the arms race in this sub-region would have an immediate stabilizing effect. Although arms control in Northeast Asia will require political resolution of more intense conflicts, a Post-Ministerial Conference group process would be indirectly beneficial.



**VI. ORGANIZATION OF U.S. GOVERNMENT
NON-PROLIFERATION AND ARMS CONTROL ACTIVITIES**

Coordinator

Leonard S. Spector

Principal Contributors

Department of State/Arms Control and Disarmament Agency/Department of Energy/ National Security Council	Thomas W. Graham Mitchell Reiss Leonard S. Spector
Department of Defense	Paul Leventhal
Arms Control and Disarmament Agency	Peter D. Zimmerman
Department of Energy	Thomas B. Cochran
Department of Commerce	Gary Milhollin
Intelligence Support for Non-Proliferation	Edward Levine and Beth Russell

Additional Reviewers

The coordinators of this volume reviewed the papers listed above.



**DEPARTMENT OF STATE/ARMS CONTROL AND
DISARMAMENT AGENCY/DEPARTMENT OF ENERGY/
NATIONAL SECURITY COUNCIL**

Issue (January/February 1993):

How should the executive branch be organized to facilitate an effective anti-proliferation policy?

Options:

- (A) Modified version of option proposed by Richard Holbrooke: abolish the Arms Control and Disarmament Agency (ACDA), place its functions under a new under secretary of state for international security, and give this new office the lead role in the development of proliferation policy.
- (B) Strengthen the inter-agency process and designate a single decision-maker for non-proliferation outside the National Security Council (NSC); strengthen ACDA; re-organize the State Department's proliferation staff into a single bureau; create an assistant secretary for nuclear non-proliferation and arms control at the Department of Energy (DOE); appoint a mid-level NSC staffer to coordinate non-proliferation policy; and have the president designate a single senior official outside the White House as the chief non-proliferation decision-maker.
- (C) Assign the NSC the principal policy-making and inter-agency coordinating functions, with increased responsibilities and staffing, under a deputy national security advisor for non-proliferation.

Background/Discussion:

All experts within the government and in non-governmental organizations agree that the executive branch's organization for non-proliferation is not optimal. Poor organization accentuated the policy and intelligence failures associated with Iraq. By statute and substance, non-proliferation is an inter-agency issue that involves a dozen organizations involved in intelligence analysis and policy development/implementation: ACDA, the Central Intelligence Agency (CIA), Department of Commerce, Department of Defense (DOD), Defense Intelligence Agency (DIA), DOE, National Laboratories (Livermore, Los Alamos, Oak Ridge, Pacific Northwest, and Sandia), National Security Agency, NSC, and Department of State. Whereas total staffing for non-proliferation affairs has grown since

1974 and appears to be adequate, past organizational changes have been ad hoc, with a resultant complex system that has become dysfunctional.

If the activities of additional agencies, such as the Department of Treasury and the Office of the U.S. Trade Representative, are to be integrated into U.S. non-proliferation efforts, centralized coordination of policy in this sphere is all the more essential.

An effective national policy also requires that timely intelligence analysis reach decision-makers at all levels and that key personnel with intelligence, technical, and regional expertise be retained, without regard to whether they occupy Schedule C positions.¹

Option (A) addresses the disorganization at the Department of State, which has too many players, including the multiple non-proliferation staffs and several regional bureaus, as well as at ACDA. It underlines the role of the State Department as the U.S. agency responsible for the formulation and articulation of U.S. foreign policy. It would also help ensure that the United States speaks with one voice on non-proliferation matters and that the full range of U.S. foreign policy concerns are integrated into non-proliferation decision-making.

Option (A), however, does not deal with the government-wide organizational problem and would produce a narrower range of options for the president. Ultimately it would diminish non-proliferation considerations within the State Department. The most difficult proliferation issues will always have to take into account competing regional interests and other long-term security

¹ To facilitate proper attention to each of the major areas of non-proliferation, consideration should also be given to intra-agency staffing patterns. One possibility is to mandate that in each of the relevant agencies an official at the deputy assistant secretary rank be responsible for nuclear, chemical/biological, missile proliferation, and export controls, respectively. At a minimum, lead officials should be designated for each subject area.

Inter-agency non-proliferation working groups or committees that bring together lead officials from the key agencies responsible for each of the proliferations, respectively, also need to be rationalized and mechanisms established to ensure that disputes are promptly forwarded to higher levels of authority for resolution. One option would be to create a three-tiered system, with the inter-agency committees composed of officials of deputy assistant secretary rank handling more routine matters, inter-agency committees composed of assistant secretary rank officials resolving disputes within the more junior committees and considering broader policy matters, and inter-agency committees of deputy or under secretary rank doing the same for still more far-reaching issues.

interests. This option would place the most powerful under secretary of state (that for political affairs) and the regional bureaus in competition with a weaker under secretary of state for international security. This under secretary would have many responsibilities, not just proliferation. As a result, the final recommendations from State would likely be compromised, as they have been in most administrations over the past 40 years.

An additional disadvantage of **Option (A)** is that the abolition of ACDA would require legislation that many Democrats in Congress would likely oppose, necessitating the expenditure of political capital that many believe would be better applied to other issues.

Option (B) would preserve and revitalize ACDA and upgrade the non-proliferation functions at DOE, initiatives that are discussed in greater depth in subsequent issue papers. **Option (B)** would assign non-proliferation responsibilities to a mid-level, rather than a senior, staff member at the NSC to ensure that it remains a coordinator, rather than an independent power center with a policy-making mandate. This would be consistent with anticipated Clinton Administration efforts to reduce the overall size of the NSC staff.

To provide effective government-wide decision-making, under this option the president would appoint a chief non-proliferation official, who would chair the NSC committee that decides issues at the sub-cabinet level. This official might sit at State (at the ambassador-at-large, under secretary, or assistant secretary level), ACDA, or DOE. This approach would minimize the need for presidential involvement in deciding complex inter-agency disputes, would create a highly visible symbol of the Clinton Administration's commitment to non-proliferation, has proven effective in the past (see, for example, the role of Joseph Nye during the Carter Administration), and can be implemented without legislation. In addition, it would permit the official to be supported by a professional staff, which would probably be unavailable if he or she were housed in the NSC.

One disadvantage of **Option (B)** is that agencies would be able to appeal over the head of the chief non-proliferation official to the NSC or president in the event of inter-agency disputes, a factor that would vitiate many of the hoped-for benefits of designating a non-proliferation czar. In addition, the chief non-proliferation official might be seen as having less stature than if he or she were situated in the White House.

Option (C), like **Option (B)**, is easily implemented and creates a visible symbol of the new Administration's commitment to non-proliferation. It also heightens the prestige of the top non-proliferation official by placing that person close to the president, facilitates presidential involvement in key decisions and in non-proliferation matters generally, and builds upon, rather than undercuts, the natural coordinating role of the NSC.

However, this option runs against the trend of reducing the size of the NSC staff and removes a key element of foreign policy-making from its usual seat in the State Department. It may also leave the top non-proliferation official with insufficient staff resources to fulfill his or her responsibilities effectively, a situation that opens the door to renewed inter-agency strains and disarray in policy-making.

Recommendation:

Both **Options (B)** and **(C)** merit careful consideration and have important advantages over **Option (A)**. In addition to establishing a non-proliferation czar responsible for all facets of this subject, consideration should be given to assigning to separate ambassadors-at-large or officials of similar rank each of the three most demanding non-proliferation sub-portfolios: weapons of mass destruction of the former Soviet Union (FSU); nuclear non-proliferation (including representation of the United States at the International Atomic Energy Agency [IAEA] and planning for the 1995 Nuclear Non-Proliferation Treaty [NPT] Extension Conference); and chemical and biological weapons non-proliferation (including ratification of the Chemical Weapons Convention [CWC] and establishment of the Organization for the Prohibition of Chemical Weapons). Each of these sub-portfolios will require the full-time attention of a senior official.

DEPARTMENT OF DEFENSE

Issue (first quarter 1993):

Should the Department of Defense (DOD) be reorganized to elevate within the department, as well as in inter-agency decision-making, the Pentagon's role in dealing with proliferation of nuclear and other weapons of mass destruction?

Options:

- (A) Establish a new assistant secretary for non-proliferation to upgrade and coordinate better the Pentagon's functions in this policy area.
- (B) Transfer the existing, limited non-proliferation policy functions to an office with related responsibilities and greater resources, such as the Defense Technology Security Administration (DTSA).
- (C) Retain the present organization.

Background/Discussion:

Despite the growing threat to U.S. security interests from the proliferation of nuclear and other weapons in the post-Cold War world, the principal DOD responsibility in this area is assigned to a small office run by the deputy for non-proliferation policy to the deputy assistant secretary for global affairs in the Office of the Assistant Secretary for International Security Affairs.

The relatively low profile of non-proliferation in the department reflects both the Pentagon's preoccupation with strategic matters -- that is, with a monolithic rather than a fragmented nuclear threat -- and its lack of statutory authority to play a lead role in inter-agency decision-making on exports and other non-proliferation policy issues.

Under the Nuclear Non-Proliferation Act, the Defense Department has a consultative rather than a concurrence role on nuclear and dual-use transfers and on negotiation of nuclear cooperation agreements with other nations. As a result, the Pentagon does not get to see much of the significant information, including export applications and cable traffic handled by the lead agencies -- the Departments of State, Energy, and Commerce. Such information is often screened out, and the Pentagon is brought in for inter-agency consultations only when the lead agency determines an export item is significant enough for

inter-agency review or after most of the negotiation of an agreement has been completed.

A further problem is that, within the Pentagon, proliferation concerns are often given little or no consideration in relation to competing interests that must be addressed by the regional desks and acquisitions offices when dealing with friendly nations or nations with which the United States seeks improved relations. The Office of the Deputy for Non-Proliferation Policy often learns of proliferation-sensitive, technical cooperation with such countries on an episodic basis -- sometimes too late to intervene effectively -- or not at all. There is also a need for better coordination and cooperation on non-proliferation matters with other important elements of the Pentagon, including the Joint Chiefs of Staff, the assistant to the secretary of defense for atomic energy, and the DIA.

These problems reflect the absence of a central definition/policy/strategy function for non-proliferation within DOD. Unless one is developed soon, "proliferation," the latest buzzword, will be defined haphazardly by those in the Pentagon with programs, billets, or issues to protect, while long-lead indicators of proliferation threats may be missed and result in the need for future Desert Storms or even more severe tests of U.S. military capabilities.

Option (A), establishing a new assistant secretary for non-proliferation, would elevate this area within the department and give the Pentagon greater clout in inter-agency deliberations, especially if previously proposed legislation is enacted to elevate DOD's inter-agency role from consultation to concurrence on non-proliferation matters. The office of the assistant secretary of defense for non-proliferation could function on a "matrix management" basis, assigning a number of its billets for the creation of non-proliferation officers elsewhere in the department, such as the regional desks, acquisitions offices, and other major elements of the Pentagon. These officers could help carry out a coordinated non-proliferation policy and ensure that proliferation concerns are identified and addressed early in decision-making. An assistant secretary of defense for non-proliferation can be established by redesignating an existing assistant secretary of defense at the secretary's discretion or by seeking Congressional authorization of a new assistant secretary. (At present, 11 assistant secretary of defense positions are authorized by law [Title 10, sec. 136], of which 4 are specified in the law and 7 have been designated by the secretary.)

Option (B), absorbing the Office of the Deputy for Non-Proliferation Policy into a larger office such as the DTSA, reflects a re-organization plan currently under consideration in the Pentagon. DTSA, run by the deputy under secretary for trade security policy, who is also the director of DTSA, has principal responsibility for overseeing West-East issues rather than the regional issues that are more pertinent to proliferation concerns. This plan

also would contribute little to elevating the Pentagon's inter-agency role in non-proliferation decision-making.

Option (C), retaining the present organization, would be unresponsive to the new nuclear threat posed by proliferation. It would perpetuate present problems confronting non-proliferation policy-making inside the Pentagon and the Pentagon's non-proliferation role in inter-agency deliberations.

Recommendation:

Option (A).

ARMS CONTROL AND DISARMAMENT AGENCY

Issues (January-February 1993):

What role, if any, should ACDA play in the Clinton Administration, and what organizational changes should be made within ACDA to enhance its capabilities?

Options:

- (A) ACDA should be upgraded and given primary responsibility for arms control policy and management, including U.S. non-proliferation policy and negotiation, with an appropriate reorganization.
- (B) ACDA should continue to be used much as it presently is -- as a major but not primary supporting body for arms control issues and negotiations -- and should retain substantially its same organization.
- (C) ACDA should be downgraded to a subsidiary body or directorate within the State Department, with only technical responsibilities and no role in policy-making.
- (D) ACDA should be abolished¹ and whatever useful functions it has distributed among other departments and agencies as appropriate.

Background/Discussion:

ACDA was created in 1961 by Congress at the urging of the Administration of President John F. Kennedy to give arms control a higher profile. It has had a checkered existence during its three decades, flourishing under some Administrations (for example, those of Presidents Kennedy,

¹ Whether the agency should be continued or abolished has been a question of great speculation and complexity, with strong views on both sides. For that reason the question cannot be addressed in detail in this brief paper. Rather, it is strongly recommended that a recently released study by the Inspector General of the State Department (and of ACDA) be carefully reviewed for guidance. The study was requested by the Senate Foreign Relations Committee and prepared by a select group headed by retired Ambassador James Goodby.

Richard M. Nixon [first Administration], and Jimmy Carter) and being neglected (not necessarily benign neglect) under others (those of Presidents Nixon [second Administration], Gerald R. Ford, Ronald Reagan, and George Bush). Today it is at a nadir, having been largely ignored by the State Department under James Baker, which has taken over many of ACDA's basic functions, including the conduct of arms control negotiations. For 12 years ACDA has had as directors a series of men who were at the least skeptical of arms control and who even had institutional ties to those offices in the Department of Defense that were the most opposed, historically, to arms limitations.

It is important to keep in mind that, although ACDA's director is by law "the principal advisor to the President, the National Security Council and the Secretary of State on matters involving arms control and disarmament," the agency has never filled two of those functions and has only from time to time filled one -- that of principal advisor to the secretary of state. However, as noted, ACDA has functioned admirably in some periods -- when the director has had a close personal and professional relationship with the secretary of state. Indeed, ACDA can only function effectively when that condition is met. When ACDA flourished, it attracted some of the most capable policy analysts and scientists in the field.

If ACDA is retained, certain internal changes can be made to enhance its effectiveness. For example, in the field of non-proliferation, two of the four assistant directors of the agency -- those for multilateral affairs and for non-proliferation policy -- have overlapping responsibilities. Consideration should be given to consolidating the two bureaus or else to redistributing their functions and responsibilities. In addition, consideration should be given to spreading verification responsibilities throughout the bureaus within ACDA and changing what is today the Verification and Implementation Bureau to a Bureau for Implementation of Treaties and Agreements.

One of ACDA's duties is to look ahead to seek arms control measures that might benefit the United States. To perform this task, ACDA should have an improved capability for conducting both internal and external research. This capability can be achieved by strengthening the Office of Chief Scientific Adviser and giving it the mandate to explore new means for arms control, limitation of proliferation, and implementation of arms limitation agreements.

No amount of tinkering with the internal structure of ACDA will, however, make much difference until the director achieves the close relationship with the secretary of state described above. Such a relationship is key to ACDA's making a successful contribution to arms control policy. If that relationship does not exist, the secretary will look within the State Department and bypass ACDA.

Finally, the statute that created ACDA provides for the president to appoint a General Advisory Committee from outside the government to advise the president, the secretary of state, and the ACDA director on arms control issues. This body, like ACDA itself, has had a mixed history (for example, compare the make-up and performance of the Carter-era committee, chaired by Thomas Watson and later by McGeorge Bundy, with its successors). However, when the committee has been strong and energetic, it has had access to the president to present views that at times have been different from any within the administration.

Recommendation:

Option (A); first, however, make absolutely certain that the secretary of state is fully involved in the selection of the director of ACDA and that the secretary is at ease with that selection, as well as with the decisions made concerning the future of the agency. Second, review ACDA's structure thoroughly to make certain that it is organized appropriately to deal with the greatly changed world of arms control with which it will be concerned. Third, after reviewing past General Advisory Committees, appoint the strongest, most varied, and most independent group of interested individuals available (for example, chief executive officers of businesses, labor leaders, academics, and former government officials).

DEPARTMENT OF ENERGY

Issue (January/February 1993):

How should DOE be organized to handle non-proliferation and arms control issues?

Options:

- (A) Retain the existing organizational structure.
- (B) Upgrade the Office of Arms Control and Nonproliferation (OAC&N) within DOE by creating an assistant secretary for non-proliferation, arms control, and intelligence (ASNACI).

Background/Discussion:

OAC&N currently has responsibility for arms control, non-proliferation policy, export control, and international safeguards. There is a separate Office of Intelligence (OI). The incumbent directors of OAC&N and OI are both Senior Executive Service civil service appointments. In the recent past the assistant secretary for defense programs (ASDP), who is responsible for the design, testing, and development of nuclear weapons, has commanded greater authority on some non-proliferation and arms control matters in inter-agency interactions and on Capitol Hill. The OAC&N, OI, and the ASDP all report to the secretary of energy through the under secretary.

Option (A) -- retaining the existing organizational structure -- avoids having to reorganize the nuclear weapons side of DOE and would make it easier to create a new assistant secretary position for some other purposes, for example, an assistant secretary for natural gas.

With respect to **Option (B)**, President-elect Clinton has indicated that non-proliferation is going to be a high priority in his administration, and consequently it should command a higher priority within DOE. The director of OAC&N does not have the stature of an assistant secretary. By creating a new ASNACI, he or she would command more authority on these issues, and the role of the ASDP would be defined more clearly as limited to running the weapons production complex -- weapons production, fissile material storage, and downsizing of the weapons production complex.

The secretary of energy is limited by law to eight assistant secretaries, currently assigned as follows: defense programs; nuclear energy; fossil energy;

conservation and renewable energy; environmental restoration and waste management; domestic and international energy policy; environment, safety, and health; and congressional and intergovernmental affairs.

To create a new ASNACI, one of the existing assistant secretary positions would have to be converted to an office director -- most logically, either the assistant secretary for domestic and international energy policy, or the assistant secretary for congressional and intergovernmental affairs.¹

In either case OAC&N and OI should report to the new ASNACI, thus providing him or her with the information and tools needed to respond to urgent situations in a timely manner.

Whether the secretary will get more, or less, conflicting advice on non-proliferation and arms control policy issues under **Option (A)** or **(B)**, and whether the outcome is beneficial, will depend more on the choices of personnel for the positions of ASDP and ASNACI than on the organizational structure.

Recommendation:

Option (B). Upgrade the office responsible for arms control and non-proliferation within DOE by creating an assistant secretary for non-proliferation, arms control, and intelligence.

¹ The Department of Interior does not have an assistant secretary for congressional affairs; rather it has an office for this function. Other cabinet-level departments have assistant secretaries for congressional affairs.

DEPARTMENT OF COMMERCE

Issue (first quarter 1993):

Should the Commerce Department retain the authority to regulate dual-use export licensing, or should another government agency be given this responsibility?

Options:

- (A) Make an agency whose primary concern is national security, such as the Defense Department, the hub for controlling dual-use exports relevant to nuclear, chemical, biological, and missile proliferation. The Commerce Department would retain its present record-keeping function and would refer all applications to the agency competent in national security, which would make the final licensing decision in consultation with the Commerce, Defense, Energy, and State Departments, ACDA, and the intelligence agencies.
- (B) Create a new regulatory agency to handle all dual-use export licensing.
- (C) Retain the present system.

Background/Discussion:

There is an unavoidable conflict between the Commerce Department's present duties to promote and to regulate exports. Commerce licensed more than \$1.5 billion worth of sensitive dual-use items to Iraq from 1985 to 1990. Most could be used in making nuclear weapons or long-range missiles if diverted from their claimed civilian purposes, and many went directly into Iraqi nuclear and missile sites. To promote exports, Commerce ignored the judgment of other agencies with the strategic expertise to decide whether an export might be diverted. It also licensed items that did not meet U.S. export criteria.

The real significance of dual-use items is strategic, not economic. The number of items on the U.S. control list is small -- well over 90 percent of the applications to export them are granted -- and the value of the few applications denied is tiny compared with the overall value for U.S. foreign trade.

Option (A) would put an agency that specializes in national security in charge of dual-use licensing and end the conflict of interest at Commerce. The best known example of a federal agency trying to promote and regulate at the

same time is the old Atomic Energy Commission, which had the job of both promoting and regulating nuclear energy until 1974, when Congress split the functions. The Nuclear Regulatory Commission now regulates; DOE promotes. Nuclear regulation gained great credibility and effectiveness from this separation. **Option (A)** would follow this precedent for dual-use licensing. All relevant agencies, including Commerce, would still be consulted on decisions.

Option (B) creates a new agency to handle export licensing and would thereby consolidate all licensing under one roof. This option has, however, a great disadvantage. There is a risk that industrial interests would take the agency over, as they have taken over Commerce. To prevent this occurrence, there would have to be a mechanism for insuring that DOD, CIA, and the State Department still have their say in the process. Devising a mechanism to insure this input, however, means a return back to the inter-agency approach of **Option (A)**.

Option (C) retains the present system and so perpetuates the conflict of interest in the Commerce Department that resulted in imprudent exports to Iraq.

Recommendation:

Option (A).

INTELLIGENCE SUPPORT FOR NON-PROLIFERATION

Issue (February-April 1993):

Should the United States significantly increase its spending on non-proliferation intelligence despite legitimate pressures to decrease overall spending on intelligence?

Options:

- (A) Within a declining overall budget for defense, direct the secretary of defense to fund a 2 percent increase in FY94 intelligence spending earmarked for non-proliferation priorities, and personally support that increase before Congress.
- (B) Direct the director of central intelligence (DCI) to produce a combined budget for FY94 non-proliferation intelligence and brief the NSC on the budgetary implications for technical intelligence collection. Once this process is completed, determine the priority to accord the non-proliferation intelligence function compared with other defense and intelligence activities. Develop a comprehensive strategy for all intelligence activities tied to this funding and carefully limit entrants to the funding pool to avoid possible abuse of this arrangement by programs with limited or no relevance to non-proliferation.

Background/Discussion:

Intelligence is crucial to overall detection of proliferation and provides support for foreign policy actions leading to denial of weapons or technology to suspected proliferant nations. It is an important component of such tasks as penetrating and/or monitoring arms proliferation activities (including nuclear testing), discerning weapons characteristics and the likely modes and procedures for their use by each proliferant country, and discouraging or preventing such proliferation or weapons use.

U.S. intelligence on arms proliferation has ranged from poor to excellent. Because good results have been produced when truly precise coverage occurs, it can be reasoned that increased intelligence efforts are valuable. Likely cuts in intelligence spending will cap these efforts, however, unless DOD provides further funding and helps the DCI defend that portion of the budget before Congress.

Technical intelligence collection may cost substantial amounts for programs whose success is uncertain or that serve a variety of needs beyond non-proliferation. Budget decisions on both intelligence collection and nuclear test monitoring programs are sometimes made by personnel who are unaware of a program's non-proliferation contributions. Further, despite the efforts of inter-agency committees and the DCI's Non-Proliferation Center, there is no effective coordinating strategy for non-proliferation intelligence efforts among the sometimes competing units of the CIA, NSA, DIA, military services, other DOD elements, and DOE, including the National Laboratories.

When intelligence has been inconclusive, analysis of arms proliferation has occasionally been complacent, overblown, or colored by agency biases and splits among the intelligence and policy organizations. Some adjustments need to be made to resolve this problem. Improvements are also needed in intelligence support to foreign policy decisions related to export licensing and international inspections.

Option (A) would decrease the non-intelligence-related segment of the DOD budget to allow a 2 percent increase in overall spending on intelligence. The additional funding would be earmarked for non-proliferation and added only after expected cuts are made to the overall intelligence budget. This approach would require the personal support of the secretary of defense. Given that this decision would lead to cuts in the defense budget beyond those already contemplated, it would pose difficulties for the secretary of defense with both Congress and DOD. This option presumes that the intelligence community is unable to find these additional funds within the intelligence budget.

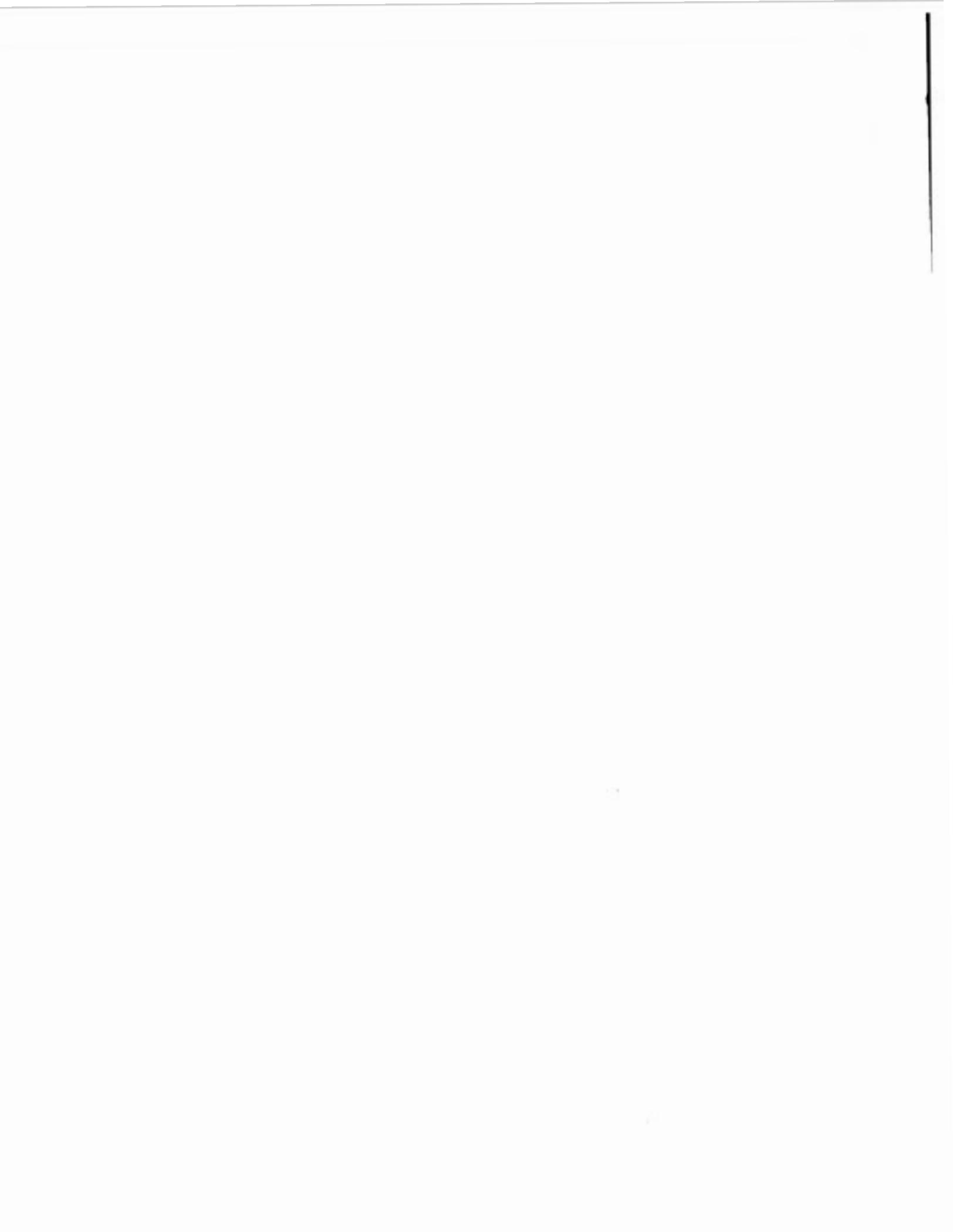
Option (B) supports a comprehensive non-proliferation intelligence budget that would aggregate all programs with non-proliferation as their primary objective and provide supplementary budget data on all other programs that make a substantial contribution to non-proliferation intelligence. This approach would fence off (protect) funding for non-proliferation intelligence from expected decreases in the budget for the intelligence community as a whole. As part of the budget process, it would be necessary to determine the priority to accord this function compared with other defense and intelligence activities. Further, a comprehensive strategy should be developed for all intelligence activities tied to this funding to ensure that funds are used efficiently and that programs truly outside the non-proliferation field do not obtain funding from this pool. A budgeting exercise of this type should be conducted annually. This option is not only consistent with the greater emphasis that President-elect Clinton has placed on non-proliferation as a national security problem, but may provide the intelligence community with a model for budgeting for other issues that cut across both agency and disciplinary lines.

Recommendation:

Option (B).

Special Budgetary/Congressional/Diplomatic Considerations:

The intelligence budget normally goes to Congress in February, but the FY94 request should be delayed or amended.



GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ABACC	Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials
ABM	Anti-ballistic missile
ACDA	Arms Control and Disarmament Agency
AFTA	ASEAN Free Trade Area
ASAT	Anti-satellite (weapons)
ASDP	Assistant secretary for defense programs (DOE)
ASEAN	Association of South-East Asian Nations
ASNACI	Assistant secretary for non-proliferation, arms control, and intelligence (DOE)
ATBM	Anti-tactical ballistic missile
BJP	Bharatiyah Janata Party
BWC	Biological Weapons Convention
CBM	Confidence-building measure
CBW	Chemical and biological weapons
CIA	Central Intelligence Agency
CIS	Commonwealth of Independent States
COCOM	Coordinating Committee on Multilateral Export Controls
CSCE	Conference on Security and Cooperation in Europe
CTB	Comprehensive test ban
CTBT	Comprehensive Test Ban Treaty
CWC	Chemical Weapons Convention
DCI	Director of Central Intelligence
DIA	Defense Intelligence Agency
DOD	Department of Defense
DOE	Department of Energy
DSAA	Defense Security Assistance Agency
DTSA	Defense Technology Security Administration
EAA	Export Administration Act
EC	European Community
ENDS	Enhanced nuclear detonation safety
EURATOM	European Atomic Energy Community
FAA	Foreign Assistance Act
FRP	Fire resistant pit
FSU	Former Soviet Union
FY	Fiscal year
GAC	General Advisory Committee
GPALS	Global protection against limited strikes
GPS	Global positioning system
HEU	Highly-enriched uranium
HLW	High-level radioactive waste
IAEA	International Atomic Energy Agency
ICBM	Inter-continental ballistic missile
IHE	Insensitive high-explosive

INF	Intermediate-range nuclear forces
IRBM	Intermediate-range ballistic missile
ISRO	Indian Space Research Organization
KE	Kinetic energy
LEU	Low-enriched uranium
MFN	Most favored nation
MIRV	Multiple independently-targetable re-entry vehicle
MOX	Mixed oxide
MT	Metric tons
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
NNPA	Nuclear Non-Proliferation Act
NNWS	Non-nuclear-weapon state
NPT	Nuclear Non-Proliferation Treaty
NSC	National Security Council
NSG	Nuclear Suppliers Group
NSNF	Non-strategic nuclear forces
NWS	Nuclear weapon state
OAC&N	Office of Arms Control and Nonproliferation (DOE)
OECD	Organization for Economic Co-operation and Development
OES	Bureau of Oceans and International Environmental and Scientific Affairs (State)
OI	Office of Intelligence (DOE)
OPANAL	Agency for the Prohibition of Nuclear Weapons in Latin America
OPCW	Organization for the Prohibition of Chemical Weapons
PAL	Permissive action links
PTBT	Partial Test Ban Treaty
R&D	Research and development
RERTR	Reduced enrichment for research and test reactors
SAARC	South Asian Association for Regional Cooperation
SCCC	Joint System for Accounting and Control of Nuclear Materials
SDI	Strategic Defense Initiative
SLBM	Submarine-launched ballistic missile
SLV	Space-launched vehicle
SSBN	Nuclear-powered ballistic missile submarine
SSD	Safety, security, and dismantlement
SSN	Nuclear-powered attack submarine
START	Strategic Arms Reduction Treaty
THAAD	Theater High Altitude Area Defense
UAV	Unmanned aerial vehicle
UNSCOM	United Nations Special Commission
ZBM	Zero ballistic missiles