NON-SOVIET NUCLEAR THREATS: THE MEANING OF DETERRENCE IN A GLOBAL CONTEXT

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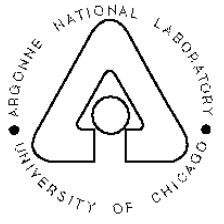

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PREFACE

Since the diminution of the nuclear threat from the former Soviet Union, and the advent of the Persian Gulf war, there has been a heightened awareness of the potential nuclear threat from Third World nations. The existence of this threat is not new. It is the *raison d'être* of past non-proliferation efforts on the part of the signatories to the Treaty on the Non-Proliferation of Nuclear Weapons.

This report will attempt to explore a variety of approaches to the problem of proliferation, some perhaps more attuned to the forces driving a would-be proliferator. The idea for this study had its genesis in an earlier report titled *Future Deterrence: The Role of Military Power in a Unified World Economy*, published in June 1990, also under the sponsorship of the Office of the Chief of Naval Operations.

The author is indebted to Dr. Linda L. Gaines for her careful review of several drafts of this document, as well as her always helpful and clarifying comments.

I. INTRODUCTION

The spread of ballistic missile technology and nuclear, chemical, and biological weapons among Third World[1] nations, coupled with a single-city blackmail or limited attack scenario, is a chilling prospect, one that mandates that the United States, as well as other developed nations, formulate a coherent and credible means of deterring and/or defending against such threats. The focus of this study is on the nuclear threat. The reason for this is that from the military perspective the nuclear threat, in spite of the natural tendency to lump chemical, biological, and nuclear weapons under the rubric of "weapons of mass destruction," is the most serious.[2] Because threats from the Middle East and China can readily serve as an illustration of the spectrum the U.S. is likely to face, they will be used as a paradigm in the following discussion. This choice is made without any intended prejudice, they are by no means the only countries or areas of concern. Background appendices are included for both China and the Middle East.

The legal foundation for present U.S. non-proliferation policy is the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which entered into force on March 5,

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[1]One may question the relevance of the hierarchy that led to the term Third World in light of the collapse of the Second World. The term dates back to the 1970s and was essentially a euphemism for non-aligned. Since then it has acquired a vague social and political content. In spite of its deficiencies, the term will be used in this study for lack of a ready replacement.

[2]This is also the view of Rolf Ekéus, the Executive Chairman of the United Nations Special Commission, a subsidiary organ of the Security Council created to monitor the implementation of the weapons part of Security Council Resolution 687: "A global collective perception of common threats now seems gradually to be emerging. This perception is first and foremost related to weapons of mass destruction. The nuclear threat is conceived as the most significant. An ongoing collective threat stems from the possibility of proliferation of nuclear weapons following the break up of the Soviet Union, as well as from the continued ambitions by some states to keep nuclear options open." ["Chemical Weapons and the New Global Security Structures," Chemical Weapons Convention Bulletin, Quarterly Journal of the Harvard-Sussex Program on CBW Armament and Arms Limitation, Issue No. 16, June 1992] From the military perspective, it is the certainty and timeliness of the kill that is important.

1970, and the Nuclear Non-Proliferation Act, signed into law on March 10, 1978. The latter commits the U.S. to being a reliable supplier of nuclear fuel to countries following strict non-proliferation policies.

The NPT would appear to have been unusually effective in preventing the spread of nuclear weapons. At least, such weapons have been developed by far fewer countries than predicted in the years after World War II. Whether the NPT is responsible for this state of affairs is an open question.

In a recent report,[3] I introduced the concepts of Economic Deterrence and The Internationalization of Conventional Deterrence. By linking these conceptual elements to that of nuclear deterrence, it may be possible to construct a credible basis for a broader concept of Extended Deterrence, one that would apply not only to Europe, but also to regional security arrangements in the Third World. If properly implemented, such a broad conception of Extended Deterrence has the potential to greatly strengthen the nuclear non-proliferation regime by reducing some of the principal incentives that Third World countries have for developing nuclear weapons.

This report also addresses the issue of the future control of nuclear weapons. Because of the breakup of the Soviet Union, it may again be appropriate to raise the issue of whether nuclear weapons should be brought under international control. The mechanism for doing so could no longer be based on the Acheson-Lilienthal report or Baruch Plan of 1946. An alternative approach, more attuned to modern circumstances, is introduced.

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[3]G.E. Marsh, "Future Deterrence: The Role of Military Power in a Unified World Economy" (Office of the Chief of Naval Operations [OP-65] June 1990).

II. TYPES OF THREATS THE U.S. IS LIKELY TO FACE

The potential for Third World countries to develop nuclear weapons may well be underestimated. This is principally due to an understandable tendency to assume any country developing a nuclear weapon capability must follow a path similar to that historically followed by the U.S., and must have the same general goals in mind. Yet, there is little evidence to back up such a point of view. India obtained plutonium by recycling fuel from a CANDU reactor[4] -- not at all the path followed by the U.S.; Israel has apparently developed relatively sophisticated weapons with few if any tests;[5] Iraq

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[4]The Cirus research reactor uses natural (unenriched) uranium and a heavy water moderator. The heavy water was supplied by the United States. Canada transferred the reactor under a 1956 agreement that required the plutonium produced by the reactor to be used only for peaceful purposes. When India used the plutonium from this reactor for a nuclear test in 1974 it claimed that the test was of a "peaceful nuclear explosive." Canada terminated all nuclear cooperation. See, for example: L.S. Spector, "Going Nuclear" (Ballinger Publishing Co., Cambridge 1987) and the Hearings cited in Reference 7.

[5]A 1974 C.I.A. Memorandum titled "Prospects for Further Proliferation of Nuclear Weapons" (Sanitized Copy of DCI NIO 1945/74, 4 September 1974) stated that: "We believe that Israel has produced nuclear weapons. Our judgment is based on Israeli acquisition of large quantities of uranium, partly by clandestine means; the ambiguous nature of Israeli efforts in the field of uranium enrichment; and Israel's large investment in a costly missile system designed to accommodate nuclear warheads. We do not expect the Israelis to provide confirmation of widespread suspicions of their capability, either by nuclear testing or by threats of use, short of grave threat to the nation's existence." The issue of whether or not Israel has carried out any nuclear tests is wrapped up in the Vela controversy. The Vela satellite is designed to detect the characteristic double flash of an atmospheric nuclear test. The Vela reported the detonation of a small nuclear device on September 22, 1979 somewhere off the coast of South Africa, originally thought to be near Prince Edward Island. A panel of experts chaired by Jack Ruina of MIT concluded that the sighting was not a nuclear test. Others disagree, and point to the corroborative evidence of the ionospheric disturbance detected

chose to follow several simultaneous paths to obtain the needed fissionable material, including calutrons, which also served the early U.S. program. This varied approach was apparently motivated by their earlier experience of having Israel bomb the Osirak reactor.[6] In addition, the use of calutrons opens up an avenue of proliferation that does not readily fall under U.S. export control policy.[7] These examples are interesting because they illustrate two important points: a proliferator may choose to use plutonium, even though it requires mastering the more difficult tasks of implosion physics and reprocessing, because, nonetheless, the material is easier to obtain; and there is sufficient

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by the radio observatory at Arecibo, Puerto Rico and a hydroacoustic pulse both of which came from the right direction and arrived at about the right time. [See Science 207, 504 (1980) andScience 209, 996 (1980).] In his book "The Samson Option," Seymour Hersh claims there were three tests. For a history of Israeli nuclear weapons development, see this book (footnote 9) and John Newhouse, "War and Peace in the Nuclear Age" (Alfred A. Knopf, New York 1989), pp. 136-138.

[6]Bombed by the Israelis on June 7, 1981, this reactor was also unsuccessfully attacked by Iran on September 30, 1980. It is also relevant to point out the three Iraqi attacks against the two partially completed nuclear power plants at Bushehr, Iran on March 24, 1984, February 12, 1985, and March 4, 1985.

[7]Proliferation by means of multiuse components was first noticed in the case of Pakistan, which imported such materials to build an enrichment facility. The nature of international commerce may make it virtually impossible to control multiuse components: "...it is often the practice for a recipient or buyer to order mechanical equipment made to certain specifications...without necessarily giving, because it is proprietary knowledge, the function of that particular part or piece of equipment...This is a frequent subcontracting process. Therefore, it permits little bits or pieces of whatever it might be, an enrichment facility or any other nuclear item, to be manufactured according to specifications, but the exact determination of the future use of this is not apparent until it is all assembled into one unit." (Testimony of Thomas R. Pickering to the Subcommittee on Energy, Nuclear Proliferation and Federal Services, of the Committee on Governmental Affairs U.S. Senate, Ninety-Sixth Congress, First Session, May 1, 1979).

information available to a proliferator, either in the public domain or through covert means, to obviate the need for an extensive test program.[8]

The level of sophistication of Third World nuclear weapons is therefore likely to be determined more by the availability of particular materials, cost, and the motives for developing the capability, as well as their intended use, rather than the technical difficulties inherent in developing the weapons.

The types of nuclear threats the U.S. is likely to face in the future fall into two broad categories: overt threats from regional powers, the principal example, for the purposes of discussion, being China or, in the future, a Middle Eastern country with a few nuclear armed ballistic missiles; and terrorist threats, which will be treated here in the context of the Middle East, although this may not be the only source of such threats in the future. The character of these classes of threats is very different and the means of deterring them, if indeed that is possible, will also be different.

Overt threats from regional powers that do not have the capability of reaching the U.S. by ballistic missile allow some flexibility of approach in terms of U.S. actions, but also raise the question of how the U.S. can protect friendly allies. These may be allies which are part of a regional conflict, or those held hostage to restrict U.S. freedom of action in the region. Whether a Third World country could prevent the U.S. from having regional freedom of action by holding hostage a major population center of a close ally (say London) is an open question. Those nuclear powers having the capability to reach the continental United States (CONUS) by ballistic missile are in a different class, and have acquired a very effective deterrent, as discussed in the next section.

The means of delivering nuclear weapons will depend on the type of threat. Overt threats are likely to initially employ aircraft and short-range ballistic missiles. A Third World country wanting to limit the freedom of action of a major nuclear power will develop, over time, a capability to deliver nuclear weapons by ballistic missiles, since this would constitute the most effective overt threat. In the case of the U.S., these must be long-range missiles. Unattributed national and terrorist attacks may use other approaches, perhaps the most likely being ship-borne weapons, intended to attack port cities, or short-range ballistic missiles from freighters.

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[8]This was also the conclusion of the 1974 CIA Memorandum cited in Reference 5: "It is theoretically possible for a country capable of developing a nuclear weapon to do so covertly, up to the test of a first device. And a test is not absolutely necessary."

III. THIRD WORLD NUCLEAR POLICIES

Third World countries develop nuclear weapons for two principal reasons: to deter, or achieve an advantage over, others in their region; or to prevent developed nations from interfering in the region. The first requires only a capability to deliver the weapons locally. Take the case of Iraq. The most likely reason Iraq wants to acquire nuclear weapons, in spite of the rhetoric with regard to Israel, is to achieve regional hegemony with respect to Iran and Syria. The second, if it is to have the greatest credibility, requires ballistic missiles capable of reaching the developed nation (or possibly a major population center of a close ally) they may wish to deter. The latter is easier to achieve if the level of nuclear weapon sophistication (yield to weight ratio) is relatively high.

If one believes public reports, Israel developed nuclear weapons not only because of the threat from local Arab counties, but also to deter the former Soviet Union from taking too active a part in regional disputes, particularly in support of Syria.[9] "Regardless

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[9]This thesis is discussed in detail in the book by Seymour M. Hersh, "The Samson Option: Israel's Nuclear Arsenal and American Foreign Policy" (Random House, New York 1991). In this book, Hersh claims that Jonathan J. Pollard, the spy arrested in November 1985, had as one of his main assignments "the gathering of American intelligence relevant to Irsael's nuclear targeting of the oil fields and Soviet military installations in southern Russia...[including] top-secret American intelligence on the location of Soviet military targets, as well as specific data on the Soviet means for protecting those targets, by concealment or hardening of the sites. Pollard also gave the Israelis American intelligence on Soviet air defenses...." (See, inter alia, Chapter 21, pp. 285-286.) While the credibility of Hersh's book has been called into question by the ongoing controversy over one of his sources (Ari Ben-Menashe), much of the controversy is over whether Israeli Prime Minister Yitzhak Shamir passed information from Pollard to the Soviets, and is irrelevant to much of the history detailed in the book. In support of the thesis that Israel developed nuclear weapons primarily to deter the Soviets see: Andrew W. Hull, "The Role of Ballistic Missiles in Third World Defense Strategies," Institute for Defense Analysis, IDA Document D-1057, June 1991. Interestingly enough, in 1986 not all authors accepted the thesis that Israeli nuclear weapons were, at least in part, intended to deter the Soviets. In "Security or Armageddon: Israel's

of actual Israeli intentions, the Soviets at least believe that was what the Israelis have in mind. And, apparently for this reason, Radio Moscow broadcast three warnings in Hebrew in the week following successful testing of the Jericho II in July 1987. Radio Moscow warned that continued development of the Jericho II might cause Israel 'to encounter consequences that it could not possibly handle.'"[10]

China also fits into the dual category of wanting to achieve regional deterrence *vis a vis* the former Soviet Union and wishing also to deter Western countries. While their principal concern may have been the Soviet Union, they have developed a most effective capability against the risk averse U.S., and have motivated the development of nuclear weapons in India. One should keep in mind here the distinction between the level of nuclear forces needed to deter nuclear threat by another country, and that needed if deterrence fails. The small number of nuclear-armed Chinese ICBMs is fully capable of preventing the U.S. from using even implicit nuclear threats to achieve political or limited military goals. If deterrence fails, the U.S. would survive a Chinese attack, albeit with totally unacceptable damage since the loss of even one major urban area is intolerable, but China would be "a smoking, radiating ruin at the end of two hours."[11]

Nuclear Strategy," Louis René Beres, Ed. (Lexington Books, Massachusetts 1986), Alan Dowty states that: "Another conceivable motivation for an Israeli nuclear weapons force is to deter Soviet threats [emphasis in the original] that might endanger Israel's existence. The argument is that even a very limited capability against the Soviet Union might be effective and credible, if Israel were indeed in desperate straits. But it seems unlikely, by all indications, that Israeli policymakers could seriously consider deterrence of the Soviet Union a plausible aim." The possibility is dismissed on the basis of formidable Soviet air defenses. Obviously, other analysts might disagree on the effectiveness of Soviet air defenses, and Dowty inexplicably did not consider delivery by ballistic missiles. He also seems to confuse the nuclear capability needed to deter a risk averse nation like the Soviet Union or United States with that required to fight a war if deterrence fails.

[10]Andrew W. Hull, "The Role of Ballistic Missiles in Third World Defense Strategies," Institute for Defense Analysis, IDA Document D-1057, June 1991.

[11]Declassified memorandum from Capt. William B. Moore (OP-36C), Executive Assistant to the Director of OP-36, the Atomic Energy Division, Office of the CNO,

The incentive for Third World countries to develop nuclear weapons may well be enhanced by the breakup of the Soviet Union and the reduction, if not elimination, of the adversary relationship between the U. S. and successor states to the Soviet Union. For example, in the past both India and Pakistan exploited cold-war tensions to achieve their own ends. Currently, the weakening of the alliance between the Soviet Union and India may well convince India to develop credible nuclear forces to deter a potential threat from China. Although the Indo-Soviet Friendship Treaty of 1971 was renewed in August 1991, the restoration of friendly relations between China and the former Soviet Union must decrease the value of any reassurance this bipolar alliance may have given India in the past.[12] This is true even though China's international relations have been evolving in the direction of normalization, and the Chinese threat, at least to external observers, has been declining for years. Since Pakistan's main motivation for the development of nuclear weapons has been to deter India, any decision by India to nuclearize its forces will almost certainly lead Pakistan to further develop and deploy nuclear weapons.

The U.S. has attempted to address the incentive for Third World countries to develop nuclear weapons to deter the U.S. by offering, in connection with a United Nations Special Session on Disarmament in 1978, the assurance that the U.S. would "not use nuclear weapons against any non-nuclear weapons state party to the NPT or any comparable internationally binding commitment not to acquire nuclear explosive devices, except in the case of an attack on the United States, its territories or armed forces, or its allies, by such a state allied to a nuclear weapons state, or associated with a nuclear weapons state in carrying out or sustaining the attack."[13] This policy was reaffirmed in 1982 by then Arms Control and Disarmament Agency Director Eugene Rostow.

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dated 18 March 1954; quoted from David Alan Rosenberg, "A Smoking Radiating Ruin at the End of Two Hours,"International Security Vol. 6, No. 3, Winter 1981/1982. Capt. Moore was, of course, at the time referring to Russia.

[12]For an extensive discussion of security issues in Southern Asia, see: Rodney W. Jones, "Old Quarrels and New Realities: Security in Southern Asia After the Cold War," The Washington Quarterly Winter 1992.

[13]"Arms Control and Disarmament Agreements," United States Arms Control and Disarmament Agency, 1990 Edition, p. 94. See also the discussion in: T.C. Reed and M.O. Wheeler, "The Role of Nuclear Weapons in the New World Order" (Report dated December 1991).

Consider such a guarantee from the Iraqi perspective when it was being militarily supplied by the Soviet Union. The Iraqis may well believe that the U.S. would consider a military supply relationship to be an alliance. Thus, if during this period Iraq, as a non-nuclear signatory to the Non-Proliferation Treaty (since 1969), had attacked a nation where the U.S. had a national security interest, Iraq might believe that the U.S. would consider itself quite free to threaten the use of nuclear weapons. From the Iraqi perspective this is not much of a guarantee. In fact, when Iraq attacked Kuwait, Iraq was not allied, in any meaningful sense, with a nuclear weapons state. Yet, so as to introduce an element of uncertainty, the U.S. felt quite free not to rule out a nuclear response in a variety of scenarios not necessarily covered by the escape clause in the guarantee. This did not set a good precedent from the perspective of Third World countries. Because the escape clause is so broad, the guarantee is unlikely to offer much assurance to any except the most pacific of states.

The overwhelming success of U.S. conventional forces may have sent an unintended message to Third World nations. When asked what lessons to draw from the Gulf War, the Indian defense minister is reported to have responded: "Don't fight the United States unless you have nuclear weapons."[14]

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[14]Rep. Les Aspin (Chairman of the House Armed Services Committee), "From Deterrence to Denuking: Dealing with Proliferation in the 1990s," February 18, 1992.

IV. DETERRENCE AND THIRD WORLD THREATS

The modern concept of deterrence evolved from the competition between the U.S. and the Soviet Union subsequent to World War II. Deterrence must be redefined if it is to apply in the context of the Third World. The difficulty of understanding both Third World decision making processes and why decisions are made should not be underestimated. The Persian Gulf war is an outstanding example. The reasoning underlying many of Saddam Hussein's strategic decisions is still not understood either by the public or by the Department of Defense.

Deterrence through either denial of goals or punishment presupposes the existence of a rational adversary. But when there are significant differences in world view, aside from the certainty of total destruction, what appears irrational within the context of one society may appear rational from the perspective of another. Why did Saddam Hussein not limit his invasion of Kuwait to taking the Bubiyan Islands and enough land to adjust the border to include the Ramallah oil field? After it was clear that the U.S. was moving massive military forces into the region, with the clear intent of using them, why did Saddam Hussein not withdraw to such a position? Why did much of his air force end up in Iran? After the abysmal performance of Iraqi forces, how could Saddam Hussein claim a victory? Such a claim cannot be totally specious, many citizens in Arab lands believe it and Saddam Hussein remains in power as of this writing.[15] While it is not the intent here to enter into a full discussion of the Gulf War, it is clear that U.S. perceptions of Saddam Hussein's goals may have been at variance with his actual goals, which may

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[15]Saudi Arabia and Kuwait continue to be concerned about the threat from Iraq and are reconsidering their policy on dividing that country. In March of 1991, when uprisings in Iraq's Shi'ite-dominated southern region and Kurdish northern region threatened to split the country, Saudi Arabia urged the U.S. not to extend its military offensive. Saudi fear of Iranian domination in the south of Iraq, which motivated their call for restraint, has apparently eased, and in February of 1992 a leader of the Shi'ite opposition in southern Iraq, Ayatollah Mohammed Bakir al-Hakim, was invited to visit Riyadh, where he was publicly received by King Fahd. A Saudi senior intelligence official is quoted as saying that the partition of Iraq "may in fact be a better solution than the present situation....we may need several small entities to deal with instead of attempting to preserve one Iraqi nation." [New York Times, August 2, 1992, p.10]

not have been consistent throughout the war and may well have changed during its course.

If the concept of deterrence is to be applied in the Third World, it must be reflected against the religious and ideological foundations of the area. For example, consider the Middle East since 1967. From the perspective of the West, "the strategy of deterrence -- the strategy of preventing others from harming one's interests by threatening to harm theirs in retaliation -- has had its successes as well as its failures in that region."[16]

Some believe that, "such an analysis would be alien to Arab and other Muslim leaders, however. What may appear to the Western analyst as a successful strategy for maintaining peace seems to these Middle Eastern leaders to be a humiliating state of enforced passivity. It is thus an unstable stalemate, which must ultimately end in victory or defeat, and which is therefore typically characterized by arms races. As Middle East leaders see it, the important question is not how often deterrence has broken down, but whether these inevitable breakdowns were followed by victory or defeat. From this perspective, it is clear why so many Middle East leaders attempt to obtain as many weapons as they can, and why they will seek to obtain as many weapons of mass destruction as they can."[17]

Indeed, there is some support for this point of view. According to Muslim religious teaching, "the world is divided into two: the House of Islam (dar al-Islam), where Muslims rule and the law of Islam prevails; and the House of War (dar al-Harb), comprising the rest of the world. Between the two there is a morally necessary, legally and religiously obligatory state of war, until the final and inevitable triumph of Islam over unbelief. According to the law books, this state of war could be interrupted, when expedient, by an armistice or truce of limited duration. It could not be terminated by a peace, but only by a final victory."[18]

Lest one assume that these considerations are irrelevant to the modern world, consider the case of the murder, in 1981, of President Anwar al-Sadat of Egypt by four

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[16]Adam Garfinkle, "Deterrence and the Middle East: The Impact of Culture on War and Peace since 1967" Foreign Policy Research Institute, July 8, 1991.

[17]Ibid.

[18]Bernard Lewis, "The Political Language of Islam" (The University of Chicago Press, Chicago 1988).

members of an Islamic fundamentalist group. During their interrogation it became clear that their case against Sadat was that Sadat "was a Muslim only in name. By setting aside the shari'a and its true exponents, and introducing a Western and therefore infidel system of law and adjudication, society and culture, he had proved himself to be an apostate. The apostate is worse than the usurper, worse than the tyrant, worse even than the infidel ruler, in that there are no circumstances in which his rule may be accepted and his orders obeyed. The penalty for apostasy is death, and the basic Muslim duty or 'doing what is right and preventing what is wrong' requires the enforcement of that penalty. Similar arguments were used to justify the overthrow of the Shah of Iran, and are being used against other governments in Muslim countries which do not accept the radicals' interpretation of Islam."[19]

While Islamic fundamentalism is an increasingly important factor in the Middle East, the rejection of modernism is far from unanimous. It is therefore important that the U.S. formulate policies that strengthen moderate elements in the region.

NON-ATTRIBUTABLE NATIONAL AND NUCLEAR TERRORIST ATTACKS

As discussed above, the types of Third World nuclear threats the U.S. is likely to face in the future fall into the categories of overt threats from regional powers, and non-attributable, small-scale national or terrorist attacks. The most difficult threat to counter is perhaps that of small-scale, non-attributable national attacks or nuclear terrorist attacks.

While non-attributable national or nuclear terrorist attacks (with state-sponsored terrorism being an intermediate case) may not seem to differ from the perspective of the nation attacked, the motivation of the perpetrators may be quite different. Terrorist groups often draw members from different nations, ideology being the common element. Attacks may be executed for a variety of motivations: to call attention to a cause; display the impotence of the country attacked; polarize political factions to prevent compromise or achieve a particular political end; threaten weak, civilian-controlled governments that are trying to maintain political power,[20] and possibly democratic institutions; have an

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[19]Bernard Lewis, ibid. See also the references cited therein.

[20]A timely example is that of Peru where Alberto Fujimori, selected to be President on June 10, 1990, has issued emergency decrees increasing the power of Peru's military to combat the terrorist war being waged by the Sendero Luminoso or Shining Path, an offshoot of Peru's Communist Party (the Sendero Luminoso is

economic impact or raise the political cost of a policy the terrorists object to; and possibly to maintain the internal cohesion of the terrorist group itself.

Frequently terrorism is "a deliberate instrument of state action -- in addition to that conducted by groups and individuals for their own political or religious objectives. Terrorism was one of the instruments used in conflicts of varying intensity between Arabs and Israel; among and between Arab governments and Palestinian groups; as an adjunct to the Iran-Iraq war and in Iran's efforts to subvert or sway the policies of various Arab governments; in the kaleidoscopic violence in Lebanon; and against selected Western targets in the region and in Europe."[21] Nuclear terrorism would be an extension of such activity to a higher level of violence.

It may not be possible to deter terrorist attacks even if they are attributable to a physically centralized people; deterrence by threatening an unarmed population with limited conventional strikes would be ineffective and serve primarily to create more terrorists (since killing and maiming individuals having no direct connection with terrorism may well motivate their relatives to become terrorists), while threatening nuclear retaliation would not be credible. Terrorists, after all do not, in general, represent the populations from which they are derived, and retaliation against such populations, whatever the provocation, would have little international or domestic support. One is inescapably led to the conclusion that preventing nuclear terrorist attacks is primarily an intelligence mission, for only with timely intelligence can a terrorist attack be prevented.

Non-attributable national attacks, for whatever reason, would primarily be motivated by a desire to introduce enough uncertainty as to the origin of the attack to prevent retaliation. Deterrence of nuclear attack on the U.S. depends upon attribution; if the identity of the attacker is not known, we cannot strike back, and an aggressor would not be deterred. Consequently, deterrence of small-scale national attacks against the U.S.

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formally called the Communist Party of Peru). This terrorist group was founded in 1970 by Abimael Guzmán Reynoso (whose nom de guerre is Comrade Gonzalo), a professor of philosophy who taught and recruited at the University of San Cristobal de Huamanga in Ayacucho in southern Peru. Their orientation is Maoist and consistent with doctrine, Guzmán primarily recruited from the Indian (Quechua-speaking) and Mestizo population. Guzmán and other high-ranking members of Sendero Luminoso were captured after a twelve year manhunt in September 1992.

[21] Robert Oakley, "International Terrorism," Foreign Affairs 65, 611 (1986).

depends critically on accurate intelligence, or at least on introducing enough of an element of uncertainty in the minds of potential aggressors that they cannot be sure that U.S. intelligence cannot correctly identify the nation or nations responsible for the attack. As with terrorist attacks, early detection of an actual attack and identifying countries that might find non-attributable attacks in their interest is primarily an intelligence mission.

To maintain and enhance crisis stability, it is also extremely important that major adversaries, if any, be in a position to distinguish retaliatory launches from limited attacks on them -- this implies real-time communications with the successor states to the former Soviet Union, China, and our allies, as well as accurate and timely intelligence on their part.

V. APPROACHES TO DEALING WITH THIRD WORLD NUCLEAR THREATS

Currently, there does not exist a credible and enforceable regime, based on internationally accepted norms, for control of the spread of nuclear weapons. Any nation that is not a signatory to the NPT is free to develop nuclear weapons if it finds such development in its national interest. Any signatory nation may withdraw from the treaty with three months notice, or violate their commitments without detection, as the experience with Iraq has shown. After discussing the most likely responses to an increased proliferation threat, four basic approaches to potential nuclear threats from the Third World are introduced. These generally do not fall into the category of strengthening existing institutional disincentives. They are: Prevention by Military Action; Preemption; Active Defense; and A Regional Approach to Third World Threats.

As stated earlier, the Middle East has been chosen to serve as one element of a paradigm (with China being the other) for the discussion of Third World nuclear threats. While each area of the world requires a separate analysis, the basic approaches discussed below are nonetheless expected to be applicable.

CONVENTIONAL RESPONSES TO AN INCREASED PROLIFERATION THREAT

Most conventional initiatives to strengthen the nuclear non-proliferation regime are likely to be based on the following approaches: attempts to strengthen the authority of the International Atomic Energy Agency (IAEA), which is responsible for verifying the NPT; initiatives to tighten export controls on "sensitive technologies;" and providing additional resources to improve intelligence capabilities for detecting emerging nuclear programs. While such initiatives may be intrinsically worthwhile, they have failed to prevent the spread of nuclear weapons and technology in the past and they are likely to fail in the future. The reason is that they do not address the incentives that drive proliferation. Instead, they may be characterized as attempts to strengthen existing institutional structures with proliferation issues in their purviews.

Consider first the IAEA. Under Article III of the NPT, each non-nuclear weapon state signatory agrees to "accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful

uses to nuclear weapons or other nuclear explosive devices." Thus, the IAEA safeguards are primarily systems of material accountancy, only intended to detect diversion of nuclear material from *declared* peaceful nuclear activities.[22] They were not designed to verify the fundamental pledge made by non-nuclear weapon states under the NPT not to acquire nuclear weapons. IAEA safeguards, unless significantly expanded in scope, are simply too limited to be effective in preventing the proliferation of nuclear weapons; to a large extent, they were originally structured to allow the spread of nuclear technology for peaceful purposes, not prevent the development of nuclear weapons by countries finding them in their national interest.

In addition to this limitation, past NPT review conferences have often been contentious in nature. One of the principal sources of controversy at the NPT review conferences has been the assertion by non-nuclear weapon states, signatory to the NPT, that a comprehensive test ban is necessary to meet the objectives of Article VI. In point of fact, it is the introductory part of the treaty,[23] with reference to the 1963 Treaty

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[22]The IAEA does apparently possess, but has never exercised on its own initiative, the right to conduct mandatory, short-notice challenge inspections of undeclared facilities, referred to in full-scope safeguard agreements as special inspections. For example, Article 71 of the U.S.-IAEA Safeguards Agreement specifies that the Agency may make special inspections if "the Agency considers that information made available by the United States ... is not adequate for the Agency to fulfill its responsibilities under this agreement. An inspection shall be deemed to be special when it ... involves access to information or locations in addition to the access specified in Article 74 for ad hoc and routine inspections, or both." ["Arms Control and Disarmament Agreements," United States Arms Control and Disarmament Agency, 1990 Edition, p. 245.] Similar provisions are presumably incorporated in agreements between other signatories of the NPT and the IAEA (Article III of the NPT mandates that such agreements be concluded between the IAEA and non-nuclear weapon states party to the NPT.)

[23]One could legitimately question whether or not the preamble to a treaty is binding. In general, treaty interpretation is governed by the Vienna Convention on the Law of Treaties [U.N. Doc. A/CONF. 39/27, (1969), 63 A.J.I.L. 875 (1969), 8 I.L.M. 679 (1969); done in Vienna on May 23, 1969; entered into force on January 27, 1980]. Article 31 states quite explicitly that "The context for the purpose of

banning nuclear tests in the atmosphere, outer space and under water, that refers to the "discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end...." However, it is reasonable to expect that such negotiations could fall under the purview of Article VI, which commits the parties to the Treaty to "...pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament...."

Many signatories to the NPT do not believe the U.S. has pursued negotiations for a comprehensive test ban "in good faith," although few could argue that recent strategic arms reductions were not major steps "relating to cessation of the nuclear arms race." As a result, a group of NPT signatories has made "extension of the NPT in 1995 conditional on the signing of a comprehensive nuclear test ban by the nuclear weapon states."[24] The NPT's future is far from certain.

The actual relationship between nuclear testing by the principal nuclear weapon states and proliferation to Third World nations would appear to be tenuous at best. Nonetheless, for whatever reason, Third World nations are likely to use the test ban issue as part of a bargaining strategy. Consequently, the ability of the U.S. to enter into treaties imposing additional testing restrictions may be of significant *political* value. It is therefore important that the U.S.G. has technical guidance on the feasibility of additional testing restrictions that is free of institutional bias.

Export controls on "sensitive technology" are similarly inadequate. The findings of the IAEA inspection team in Iraq after the Gulf War led the IAEA to conclude that: "The Government of Iraq had a program for developing an implosion-type nuclear

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the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes: (a) any agreement relating to the treaty which was made between all the parties in connexion with the conclusion of the treaty; (b) any instrument which was made by one or more parties in connexion with the conclusion of the treaty and accepted by the other parties as an instrument related to the treaty." In addition, Professor M. Cherif Bassiouni, a renowned international law scholar at the DePaul University College of Law, has stated that "the preamble is binding unless it is so general or precatory in nature as to obviously not represent the parties' intent" (private communication).

[24]Zachary S. Davis, "Non-Proliferation Regimes: A Comparative Analysis of Policies to Control the Spread of Nuclear, Chemical and Biological Weapons and Missiles," Congressional Research Service 91-334 ENR, April 1, 1991.

weapon...[and] Documents were found showing that the nuclear weapons program was supported by broad-based international procurement efforts."[25]

The nature of international commerce makes it difficult if not impossible to control multiuse components (see footnote 7). For example, the calutrons developed by Iraq in its electromagnetic separation program are similar to those used by the U.S. to obtain the enriched uranium used in the World War II "Little Boy" bomb. Development of calutron technology cannot be prevented by export controls. Sophisticated calutrons using superconducting magnets may not even have the intelligence signature of massive electricity use.

The remaining initiative, to improve intelligence capabilities for detecting emerging nuclear programs, is clearly mandated by the recent failure to detect the extent of the Iraqi nuclear program. This can only be characterized as a massive intelligence failure, second only to the failure to predict the developments in Eastern Europe and the former Soviet Union, and the subsequent collapse of the Warsaw Pact. But while knowing extensive details about a nuclear weapons program can help implement a nonproliferation policy, it cannot determine that policy.

PREVENTION BY MILITARY ACTION

The idea behind the concept of *Prevention* is that no Third World country will be allowed to develop a capability to attack CONUS with nuclear or other weapons of mass destruction. There is also the possibility that such a policy could be extended to close allies. The approach is best exemplified by the Israeli attack on the Osiraq reactor in 1981. From Israel's perspective, Arab enmity could not be much increased by such an action, while respect for Israeli military prowess could not help but be increased. This is particularly true in the Arab world, since Iran's attack on this reactor had failed the previous year. Thus, in eliminating what Israel perceived as a serious threat to her security, she had little to lose.

The diplomatic and political costs to the U.S. of such a policy would appear to be far too great for the approach to be taken seriously, at least as a long-term solution.

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[25]"First Report on the Sixth IAEA On-Site Inspection in Iraq Under Security Council Resolution 687," 22 to 30 September 1991; as quoted by J.F. Pilat, *Science* 255, 1224 (1992).

While a significant fraction of the Muslim world has rejected the West because of sympathy with "fundamentalist"[26] efforts directed against secularism and modernism, this rejection is far from unanimous. Many Muslims continue to hold cultural, moral, social, and political beliefs and aspirations that are compatible with those in the West. It is not in U.S. interests to implement policies that would alienate these elements or, for that matter, other countries including possibly our own allies.

With respect to China, it is clear that the U.S. *did not* exercise this option. While one might argue that U.S. behavior was moderated by uncertainty over the response of the Soviet Union, the alliance formed by the Soviet Union and China in February 1950 began to unravel in the late 1950s. By the 1960s and early 1970s, the Soviets had increased the quantity and quality of military forces on the Chinese border. They began to threaten preemptive strikes against Chinese nuclear missiles, and there were two actual battles between Chinese and Soviet forces over disputed islands in the Amur river.[27]

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[26]This term, while often used in the West, is actually inappropriate. Fundamentalism generally urges a passive adherence to the literal reading of scriptures and does not advocate changing the social order, while most of today's Islamic movements "resemble Catholic Liberation theologians who urge active use of original religious doctrine to better the temporal and political lives in a modern world." [R. Wright, Foreign Affairs 71, 131 (1992)] "Fundamentalist" is a Christian term that denotes certain Protestant churches and organizations, particularly "those which maintain the literal divine origin and inerrancy of the Bible. In this they oppose the liberal and modernist theologians, who tend to a more critical, historical view of Scripture. Among Muslim theologians there is as yet no such liberal or modernist approach to the Qur'an, and all Muslims, in their attitude to the text of the Qur'an, are in principle at least fundamentalists....They base themselves not only on the Qur'an, but also on the Traditions of the Prophet, and on the corpus of transmitted theological and legal learning. Their aim is nothing less than to abrogate all the imported and modernized legal codes and social norms, and in their place to install and enforce the full panoply of the shari'a -- its rules and penalties, its jurisdiction, and its prescribed form of government." [Bernard Lewis, "The Political Language of Islam" (The University of Chicago Press, Chicago 1988), Note 3 to Ch. 1.]

[27]D.S. Zagoria, "The Moscow-Beijing Détente,Foreign Affairs61, 853 (1983).

Thus, it is probably not uncertainty with regard to a Soviet response that was responsible for the U.S. not exercising the option of *Prevention*. Far more likely are domestic political considerations and the fact that once implemented such a policy, to be truly effective, would have to be extended into the indefinite future.

Under most conditions, and with respect to most states, it is likely that *Prevention* is not a viable policy for the U.S. This is not to say that *Prevention* does not have a policy contribution in the context of a multinational force under the aegis of the United Nations, or in support of a multilateral security arrangement. *Prevention* as a part of an agreed-upon collective defense would have greater legitimacy and may be necessary to lend credibility to such arrangements.

PREEMPTION

Preemption is similar to *Prevention*, but would be applicable after a Third World country had actually developed a capability to attack the United States; i.e., when it was too late to prevent the development of the weapons but not too late to preempt their use.

There are two basic problems with a policy of preemption with regard to nuclear-armed ballistic-missile attack on the U.S.: first, it is virtually impossible to have clear and unambiguous intelligence that an attack is imminent; and second, the probability of success of a preemptive attack must be essentially one hundred percent for the order to attack to be given. Even with unambiguous intelligence, a decision maker may choose not to act because of a lack of belief in the warning; while, on the other hand, if the warning *is* believed, a preemptive policy introduces instabilities by encouraging quick, rather than careful, decisions. Given any real or perceived uncertainty in the intelligence, without certainty about the outcome of a preemptive attack, the perceived risks to CONUS are likely to deter action until it is too late.

If the delivery means of the imminent attack is not long range ballistic missiles, timely intelligence may well allow preemption to be a viable policy. But obtaining timely, high quality intelligence may not be easy or certain. Thus, while preemption may be possible in theory, it offers inadequate assurance and cannot be a basis for U.S. policy. Nonetheless, it should not be dismissed out-of-hand, but should be retained as an option when adequate and timely intelligence is available.

ACTIVE DEFENSE

This discussion will be restricted to defense of CONUS against Third World nuclear-armed ballistic missile threats and will not deal with the anti-tactical ballistic missile problem in the context of theater defense. While the latter is of some political and technical interest, it is not a policy driver. Two cases will be considered: (1) anti-ballistic missile assets are deployed in an area near the launch point; and (2) the U.S. moves in the direction of deploying a "light defense" of CONUS.

The first case of a launch-point defense is critically dependent on the "rules of engagement" and, if one is considering boost-phase intercept, the burn time of the enemy missile. Given the nature of the defensive action, it is unlikely that the rules of engagement would be such as to eliminate the "man-in-the-loop." The National Command Authorities (NCA) will want positive control over an action as provocative as attacking another country's "space launches." This means that the Defense Support Program[28], or its equivalent, must detect and characterize the flight path, report to the NCA, and an appropriately formatted message sent to ABM assets. In making the decision to issue an action message, the NCA cannot rely on detecting a large number of missile launches as an indicator of hostile intent. The decision must be made on the basis of detecting a single missile launch. Especially in the context of a tense political situation, this will not be easy.

Interception can either occur before burnout or during mid-course. Boost-phase defense is attractive because the booster provides a large signature. While not necessarily impossible, the time-line for such a defense is extremely demanding. In addition, while it will not be discussed in detail here, significant decreases in burn time may be within the technical capabilities of sophisticated Third World countries if there is an adequate incentive. If the kill mechanism is constrained to be non-nuclear (which is almost certain to be the case for boost-phase intercept), there are a number of relatively simple countermeasures to such launch-point ABM defenses that might well defeat the system. This is even more true of non-nuclear systems that rely on mid-course intercept. However, significant improvements in mid-course discrimination (not now in the offing), could dramatically change this assessment.

On the other hand, a forward-deployed, sea-based defense against limited ballistic-missile attack, possibly by forces comparable to those of the Chinese, is

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[28]The DSP is comprised of satellites at geosynchronous orbit with sensors that are sensitive to the short wavelength infrared emitted by boosters.

probably achievable with current technology, provided the intercept is in mid-course (thereby relieving time-line constraints), and the interceptors are nuclear-armed (thereby reducing discrimination requirements).[29] Additional quantitative analysis, including detailed comparisons with land-based architectures, is needed to prove this contention. Given the post-START force level reductions, the TRIDENT may provide the ideal platform, one that is likely to be politically acceptable, for nuclear-armed interceptors. It is, however, important that any additional operational constraints associated with the additional defense mission not degrade SSBN security by forcing the ships to operate in inappropriate areas. As the number of SLBMs is reduced, the cost effectiveness of the TRIDENT weapon system could be maintained by taking on the defensive mission.

Attractive as such a defense may seem, its deployment would violate the ABM Treaty. This treaty entered into force on October 3, 1972 after being signed and ratified in the same year. It is the foundation upon which all subsequent strategic arms limitation treaties (SALT I and SALT II) and strategic arms reduction treaties (START) are based, since without limitations on deployed defenses, offensive force levels would be much higher. The treaty specifies that only fixed, land-based ABM systems can be developed or tested, and only fixed, land-based systems specified in Article III can be deployed. Article V of the Treaty states that: "Each party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based;"[30] thus explicitly ruling out the type of forward-deployed defense described above.

In addition, if a shoot-look-shoot capability based on a single interceptor is required,[31] it is prohibited by Agreed Statement [E] of the ABM Treaty, which explicitly states that "Article V of the Treaty includes obligations not to develop, test or deploy ABM interceptor missiles for the delivery by each ABM interceptor missile of more than one independently guided warhead."[32]

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[29]If the RV is hardened against X-rays and hidden in a threat cloud, a shoot-look-shoot capability may be required to guarantee a high kill probability.

[30]"Arms Control and Disarmament Agreements," United States Arms Control and Disarmament Agency, 1990 Edition, p. 158.

[31]See footnote 29.

The incompatibility of a forward-deployed defense with the ABM Treaty is part of the more general arms-control problem surrounding ballistic-missile defenses. The ABM Treaty rules out a defense not intended to protect specific sites. Article I clearly states that "Each Party undertakes not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided in Article III of this Treaty."[33] Article III specifies two areas: the national capitol, and one deployment area having a radius of one hundred and fifty kilometers which must contain ICBM silo launchers. Deploying a ballistic-missile defense system, which is intended to defend a significant fraction of the territory of the U.S., in such an allowed area is clearly not treaty compliant.

It should be noted that SDIO maintains that "the ABM Treaty prohibition on the development of sea, air, space, or mobile land-based ABM systems, or components for such systems, applies when a prototype of such a system or its components enters the field testing stage."[34] The reasoning is based on two arguments: (1) "research" and "development" are to be distinguished, with research including, but not limited to, conceptual design and laboratory testing; (2) that development and prototype construction cannot be verified by national technical means. Both arguments are consistent with the testimony given by Ambassador Gerard C. Smith, the chief negotiator of the ABM Treaty, before the Senate Armed Services Committee on July 18, 1972: "The obligation not to develop [ABM] systems, devices or warheads would be applicable only to that stage of development which follows laboratory development and testing. The prohibitions on development contained in the ABM Treaty would start at that part of the development process where field testing is initiated on either a prototype of breadboard model. It was understood by both sides that the prohibition on 'development' applies to activities involved after a component moves from the laboratory development and testing stage to the field testing stage, wherever performed. The fact that early stages of the development process, such as laboratory testing, would pose problems for verification by National Technical Means is an important consideration in reaching this definition.

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[32]Ibid., p. 163.

[33]Ibid., p. 157.

[34]The Strategic Defense Initiative Organization, "1989 Report to the Congress on the Strategic Defense Initiative," March 13, 1989, p. C-1.

Exchanges with the Soviet Delegation made clear that this definition is also the Soviet interpretation of the term 'development."[35]

Given the breakup of the Soviet Union and the coming to an end of the Cold War, the prohibitions of the ABM Treaty may no longer represent an insurmountable obstacle to some form of defense. The potential threat from the Third World is now similar for both the successor states to the Soviet Union and the U.S. It may well be in the interests of all parties to use the provisions of Article XIV to amend the Treaty. A forward-deployed, sea-based defense against a limited nuclear-armed ICBM threat is particularly attractive because it is less destabilizing than even a "light defense" of CONUS.[36] One should not view a light defense of CONUS from only a Third World or "accidental launch" perspective. It must also be evaluated in terms of its break-out potential to a full scale SDI system. If the successor states to the Soviet Union are integrated into the world community, this may not be an important factor. If they are not, it could be a significant arms race driver.

In general, the limited effectiveness of light defenses introduces an arms-race instability by giving a country contemplating a possible attack on the U.S. an enormous incentive to proliferate the threat both in terms of numbers and kind. This incentive is not limited to light defenses based in CONUS, but also exists for forward-deployed defenses; however the latter are less destabilizing. This is because: (1) if ballistic missile submarines are used as the launch platform, it is difficult to rapidly expand such a defense; and (2), even accounting for operational practices related to time on station, the number of interceptors required is likely to be relatively small compared to remaining offensive forces. This will probably remain true even if post-START force levels are severely reduced beyond the current agreement of 3000-3500 actual warheads.

A "light defense" of CONUS, on the other hand, is not necessarily a small system. It is essentially a full-blown SDI system without the boost-phase and, depending on the

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[35]As quoted in: Office of Technology Assessment, "Strategic Defenses: Ballistic Missile Defense Technologies, Anti-Satellite Weapons, Countermeasures, and Arms Control," (Princeton University Press, Princeton, New Jersey 1986), p. 265.

[36]From the Russian perspective, however, a sea-based defense may not seem particularly attractive. Russia's principal threats, other than the U.S., are China and nations to the South. Thus, the type of defenses that would be most effective for the U.S. and Russia may differ both in deployment area and type.

architecture, possibly without the mid-course layers of defense. As such, it is more destabilizing than a forward-deployed defense and is also likely to be extremely costly. Obtaining adequate funding for such a system in the current political and fiscal climate is extremely unlikely. Another issue is the probability of a successful intercept. For an intercept to be effective, the incoming warhead must be destroyed. The high reentry forces and velocity of ICBM-delivered warheads raise the possibility that a kill can be achieved with non-nuclear intercept warheads, but this is far from certain. While nuclear-armed interceptors would offer greater assurance of lethality, the political impediments to their deployment are probably insurmountable.

From a policy perspective, since there will never be absolute confidence in ballistic-missile defenses, even against a single missile, neither a forward-deployed nor a light defense would give the U.S. freedom of action in a conflict with any nation possessing nuclear-armed ICBMs. Consider the case of the Gulf War had Iraq been armed with a few such weapons. Even if the U.S. had had a limited defense capability, would any U.S. president have led the United Nations coalition in an actual attack on Iraq? Even if one believed the free flow of oil to the Western world was worth the possible loss of a major U.S. urban area, the decision to take such a risk would not have been politically possible. Thus, while defenses might offer some assurance against limited attacks, accidental launch[37] or irrational attacks during crisis situations, they would not allow the U.S. freedom of action during such a crisis. On the other hand, an aggressor may well believe that defenses do give the U.S. freedom of action, thereby helping to deter undesirable acts. Nonetheless, defenses would not provide an adequate *basis* for U.S. policy.

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[37]A cheaper and more rational approach to accidental launch is to negotiate an agreement with all nuclear weapon states having an ICBM capability to install automatic destruct mechanisms that are incapacitated only if a properly authenticated code is supplied prior to launch. Even if the weapons in question are equipped with Permissive Action Links (PALs), the additional destruct mechanism is not redundant since a country being attacked has no way of knowing with certainty that the warheads on the accidentally launched missile have not been armed. Observing the missile being destroyed after launch detection is far more reassuring than a telephone call.

A REGIONAL APPROACH TO THIRD WORLD THREATS

Any attempt to constrain Third World threats to CONUS must be based on a serious approach to the non-proliferation of nuclear, chemical, and biological weapons, as well as a coherent plan to prevent the spread of ballistic missiles. Many believe this cannot be done. Certainly such efforts will fail if they are based on ill-conceived attempts to impose restraints on the transfer of technology *per se*. The approach to the proliferation problem must be far more comprehensive, be based on international restraints, and show consistency over time.

In the past, non-proliferation has not always been a top priority for U.S. foreign and national security policy. Other strategic and economic interests have often prevailed. "The priority that the United States assigns for its proliferation policies may send a signal to other nations. If the United States pursues strategic and/or commercial interests despite the negative consequences that such action may have for proliferation, other countries are likely to do the same. If, however, the United States appears willing to make certain foreign policy and security objectives subordinate to non-proliferation goals, other nations will be more likely to join an international consensus against proliferation. Slowing the spread of weapons of mass destruction will not be achieved without sacrifice."[38] In particular, so long as there does not exist a credible and enforceable regime based on internationally accepted norms, that prohibits the acquisition of nuclear weapons, it is unlikely that attempts to prevent the spread of these weapons will be successful unless coupled with the control of conventional weapons. This is because nuclear and other weapons of mass destruction are viewed by Third World nations as the logical extension of a conventional military capability.

Before the collapse of the Soviet Union, the international arms trade could, at least to some extent, be legitimized in the context of the rivalry between the U.S. and

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[38]Zachary S. Davis, "Non-Proliferation Regimes: A Comparative Analysis of Policies to Control the Spread of Nuclear, Chemical and Biological Weapons and Missiles" (Congressional Research Service, 91-334 ENR, April 1, 1991). Interestingly enough, in the year after this CRS report was published, President Bush apparently signed a "finding" making the proliferation of weapons of mass destruction a priority issue, and authorizing the CIA to develop plans, including those involving covert action, to prevent the spread of such weapons [Los Angeles Times, June 21, 1992, p. A20].

U.S.S.R.[39] Many Third World conflicts were extensions of this rivalry in that they could be considered a type of "surrogate warfare." Today, from a national security perspective, the arms trade represents one component of a bilateral approach to resolving regional conflicts, or protecting an arms-exporting country's interests. Many advanced nations also use foreign arms sales to help reduce unit costs, while those nations without convertible currencies often use such sales to increase their hard currency reserves. But, continuation of the international arms trade, including in particular "unilateral U.S. arms sales to its clients would boost, not reduce, the incentives of other players in the area to seek advanced military power."[40] Thus, the arms exporting nations of the world need to

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[39]The U.S. and Soviet Union have historically been the largest arms exporters: In 1987, the market share of the U.S. was 26.3% compared to 46.5% for the Soviet Union; the Warsaw Pact and other Communist countries had a 9.9% share while France and the other NATO countries had a 12.9% share; the Peoples Republic of China was the largest exporter of arms in the developing world, followed by Brazil. The Middle East was the principal recipient absorbing 37.9% of the World's arms transfers. (See: "World Military Expenditures and Arms Transfers 1988," U.S. Arms Control and Disarmament Agency, 1988.) In 1990 the State Department's Office of Munitions Control, responsible for regulating commercial arms exports, was subordinated to the newly created Center for Defense Trade whose mission is "to regulate and facilitate U.S. defense trade" [New York Times, 6 June 1992, Editorial]. In 1991, arms deliveries to the Middle East were led by the U.S. which sent $4.4 billion; Britain delivered $3.5 billion in arms; the former Soviet Union $2.5 billion, France $1.5 billion and China $300 million [New York Times 31 May 1992, p. 10]. The large subsidies offered by the Soviet Union in the past to Cuba, Vietnam, Syria and India have been eliminated. Richard F. Grimmett of the Congressional Research Service has been quoted as saying that "More and more arms suppliers are likely to be pursuing a smaller and smaller list of buyers with the ability to pay....In the next few years, economic factors may be more significant than any arms control regime in restraining the international arms trade." In addition, the International Monetary Fund and the World Bank "were encouraging third world countries to curtail military spending as a condition of getting economic aid." [New York Times, July 21, 1992]

trade off perceived gains in short term foreign policy objectives, the advantage of lower unit costs, and the profits accruing to arms manufacturers, against the implications of the continued spread of ballistic missiles armed with nuclear, chemical, or biological warheads.[41]

As a consequence of globalization, the phenomenon of the internationalization of production, and the unprecedented growth of world-wide financial markets, the interaction between the Third World and the U.S. is likely to increase in importance and scope in the future. The relationship between U.S. national security interests and economic interests will therefore continue to be strengthened.[42] Globalization of

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[40]Richard K. Herrmann, "The Middle East and the New World Order," International Security16, 42 (1991).

[41]The U.S. position on arms transfers has recently been articulated by Reginald Bartholomew, Under Secretary of State for International Security Affairs: "We think that United States arms transfers worldwide, including those to the Middle East, promote stability in a number of ways, by deterring aggression, by promoting regional cooperation and credible deterrence, by reducing the likelihood that U.S. forces will have to be employed by increasing the ability to operate jointly with our allies, and by enhancing indeed our influence among key regional decisionmakers" [New York Times, 31 May 1992, p. 10].

[42]Economic interests should not be thought of as limited to fixed American assets abroad, but includes a growing stake in the dynamics of the world-wide system of production. This follows from the fact that U.S. economic well-being is becoming progressively more dependent on the flow of goods from abroad -- consider, for example, the dependence on products ranging from oil to large-scale integrated circuits. In many cases, foreign production represents the primary source of these goods since the necessary productive capacity may no longer reside in the U.S. The increasing dependence of the U.S. on the rest of the world is part of a larger development pattern that is increasingly eroding the concept of sovereignty. The territorial boundaries of the advanced nations and their economic boundaries are no longer congruent. With continuing globalization, the power governments have over their nations' economies will be reduced. The increasing ease with which money can be transferred internationally means policy

investment may in and of itself constitute a limited deterrent to the use of military force: it is a self-deterrent in that a nation may hesitate to use military force if such use could jeopardize its own investments either physically or politically; and it serves as a mutual deterrent in the case where a group of countries have investments located on each others' territories.

As an alternative to a bilateral approach to regional conflicts, and concomitant arms transfers, it may be possible to define a concept of Extended Deterrence for the Third World by linking the conceptual elements of *Economic Deterrence* with *The Internationalization of Conventional Deterrence*. *Economic Deterrence* is the policy of using capital flows[43] and investment to achieve what might otherwise require military intervention, either indirectly through military assistance or directly by a commitment of combat forces.[44] *The Internationalization of Conventional Deterrence* is the approach of using a multilateral regime to extend the guarantee of a collective defense.

The emphasis here is on a multilateral as opposed to bilateral approach. Past U.S. policy has not, as noted earlier, primarily relied on a multilateral approach, but has used unilateral transfers of military equipment and general security assistance to help retard internal change and protect allies from external attack. It has also given aid and encouraged trade and direct investment to reduce internal economic incentives toward radicalism. The bilateral approach has not been very successful in the Third World: it failed in Iran, where the antipathy of the Shi'a to modernism and Western culture was underestimated; and severely backfired in Iraq, where the arms buildup allowed military adventurism contrary to U.S. interests.

As an example of how the concepts of *Economic Deterrence* and *The Internationalization of Conventional Deterrence* might contribute to non-proliferation regimes, consider first the case of ICBMs. In November 1982, President Reagan signed

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makers can no longer predict with certainty the economic impact of particular policies, or assume needed capital reserves will stay within their nation's borders.

[43]Examples are credit and machine tools or other goods that are themselves used in production.

[44]Much of the economic power of the U.S. is not under the immediate control of the government, and cannot therefore be used directly as an instrument of policy. Nevertheless, regulatory powers, economic incentives and trade regulations can be so used.

National Security Decision Directive 70, calling for investigation into ways to control the proliferation of ballistic missiles. This led to the agreement known as the Missile Technology Control Regime (MTCR) in April 1987. The MTCR suppliers group has fifteen members. But the MTCR has no international organization or agency responsible for monitoring compliance, no enforcement mechanisms, and no control over non-signatories.[45]

While many Third World countries may have incentives to develop short to medium range ballistic missiles for reasons of regional deterrence and war fighting,[46] few

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[45]It should be noted, however, that with regard to the contract signed by India with the Russian company Glavkosmos in 1990 for a rocket engine, the U.S. has threatened and imposed limited trade sanctions against both countries [New York Times, May 3, 1992 and May 12, 1992; see alsoNature 356, 732 (1992)]. According to newspaper reports, the U.S. imposed a two year ban on imports and exports to Glavkosmos and the Indian Space Research Organization. India argues that it needs the technology to launch its own weather, communications and educational satellites into orbit. TheNature article quotes a U.S. State Department official as stating that "the fact that they are intended to be used for peaceful purposes is not relevant ... any liquid fuel rocket stage that is capable of being used as a space vehicle falls under US export control laws, which are consistent with the MTCR guidelines." Interestingly enough, General Dynamics also bid on the contract. China has also recently agreed, under pressure from the West, to abide by the Nuclear Non-Proliferation Treaty (to which China is not a signatory), and, with conditions, the MTCR. One could reasonably question the significance of such a pledge.

[46]Third World countries also acquire ballistic missiles for reasons of prestige and international status. For example, "Saudi Arabia began by trying to acquire Lance missiles with a 100-km range from the United States, but ultimately purchased the Chinese CSS-2 with a 2,500 -km range because China was the only one willing to sell to the Saudis. The disparity in the capabilities of these two systems suggests that operational considerations played a much smaller role in Saudi decision-making than the sheer importance of having some kind of ballistic missile capability." (Andrew W. Hull, "The Role of Ballistic Missiles in Third World Defense Strategies," Institute for Defense Analysis, IDA Document D-1057, June

at this time have the capability, or the incentive, to develop long range ICBMs. The U.S. should give such countries every reason to not do so. One disincentive for those countries having legitimate scientific and communications objectives might be to offer payload space at a reasonable, and possibly subsidized, cost. If this proves inadequate, attempts could be made to see that missile technology is developed in the context of a regional scientific collaboration under international auspices. A country that persists in pursuing an ICBM capability, particularly when such missiles are likely to be exported or armed with nuclear warheads, should be met with consistent and increasingly debilitating economic and diplomatic sanctions.[47]

While the policy of *Economic Deterrence* is also applicable to preventing the spread of nuclear, chemical, and biological weapon capability, consistent diplomatic pressures are also required. The U.S. must be prepared to bring pressure to bear not only on Third World supplier countries (such as Brazil, China, and North Korea), but also on its own close allies. The two most recent egregious examples of irresponsible behavior are the shipment of essentially a complete chemical weapons plant to Iraq by Germany (not to speak of chemical weapons aid to Libya) and the French sale of significant nuclear capability and expertise to Israel and Iraq. If diplomatic pressure proves insufficient to constrain such activities, the threat of public exposure and sanctions must be made, and used, if necessary.

1991, p. 4.) The deal to obtain the CSS-2s was apparently negotiated by Prince Bandar bin Sultan: "In 1985, after telling Secretary of State George P. Schultz that he was going to China to help stem the flow of Chinese arms to Iran, Bandar supervised the brazenly duplicitous Saudi foreign policy venture of the decade. While in Beijing ostensibly to talk about arms control, he slipped away to negotiate the purchase of the largest medium-range ballistic missiles in the Middle East. After smuggling them into Saudi Arabia, where they were discovered by American spy satellites, he worked through secret White House channels to convince the Israelis to accept the missiles' presence." [New York Times Magazine, June 7, 1992, p. 76.]

[47]The purpose of sanctions is to bring pressure on the decision making strata of a country. In a democratic country, sanctions that bring pressure on the population as a whole can lead to a change of policy through the democratic process; in an authoritarian regime, such pressure can lead to mass misery, as in Haiti. If they are to be effective, the use or sanctions should be selective.

The policy of *Economic Deterrence* coupled with diplomatic pressure may be necessary for a successful non-proliferation regime, but it is not sufficient. The emergence of significant power centers in the Third World represents a challenge not only to non-proliferation policy but also to U.S. foreign policy in general. It is important that the U.S. retain some influence over these developments. However, attempting to achieve this by building up local armed forces alone may simply encourage regional adventurism (as in Iraq) or have adverse domestic effects in the recipient country.

It is important that efforts to extend U.S. influence over Third World power centers be made in the context of regional security arrangements that strengthen democratic elements and do not impede social change. "A multilateral regime that began to relax perceived threats and promised collective defense, and also worked to limit and regulate through arms control the pace and type of military development, might be worth the costs to the United States of accepting negotiated limits on its arms sales."[48] This is the idea of *The Internationalization of Conventional Deterrence*. Ultimately, such regional security arrangements could grow into an international structure of law coupled with credible enforcement powers held by a suitable international organization. In the short run, however, regional security arrangements might be most effectively guaranteed by the U.S. and its allies, including the successor states to the Soviet Union. Controlling proliferation is in the national interest of these countries, and together, provided there was no nuclear-armed ICBM threat to their homelands, there is no question of the credibility of the guarantee.[49]

That multilateral security arrangements can be very effective in preventing the spread of nuclear weapons should be obvious from the NATO experience: of the fifteen member countries, only France, the United Kingdom and the U.S. deploy nuclear weapons; none of the other member states have active programs to develop and deploy

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[48]Richard K. Herrmann, op. cit.

[49]In an informal review, Larry Brown of the Center for National Security Studies at Los Alamos National Laboratory has pointed out that from the U.S. perspective The Internationalization of Conventional Deterrence looks like deterrence and non-proliferation; but much of the world may see it as technological imperialism. To create a regime the rest of the world will have to be convinced that a strict non-proliferation regime is in their interests.

such weapons. Only the idea of integrating economic leverage -- *Economic Deterrence* -- is foreign to NATO.

The basic idea of a regional approach to Third World threats is then to use *Economic Deterrence* to enhance the incentive for countries to form regional security arrangements with credible enforcement powers. This is the idea of *The Internationalization of Conventional Deterrence*, an alternative to a local arms race. Taken together, *Economic Deterrence* and *The Internationalization of Conventional Deterrence* might be viewed as constituting a form of Extended Deterrence for the Third World. If this concept of Extended Deterrence is to encompass local nuclear threats, it must be coupled with an NPT regime expanded to include non-declared facilities, and a credible nuclear umbrella guaranteed by major powers.

Regional security arrangements could be useful in preventing the acquisition of nuclear, biological, and chemical weapons by those countries that develop them to offset or deter neighboring countries. An example might be India and Pakistan or, in the past, Argentina and Brazil.

The case of India and Pakistan is particularly interesting. Pakistan Prime Minister Nawaz Sharif proposed on June 6, 1991 "a new nonproliferation initiative in which the major powers could assist India and Pakistan to reach agreement precluding nuclear weapons....and throughout his tenure [as President of Pakistan], Zia ul-Haq launched a series of proposals on nuclear nonproliferation, essentially agreeing in principle and in advance to any kind of nuclear weapon ban, or nonproliferation constraints, that India was prepared to accept, whether bilateral, regional, or international."[50]

While the Chinese threat to India has apparently diminished over the last two decades, and the ongoing economic changes in China make it unlikely that China would like to be perceived as a threat, the weakening of the alliance between India and the Soviet Union may nonetheless make an independent nuclear deterrent attractive to India. India currently insists that any regional nuclear weapon-free zone not be limited to South Asia, but encompass all Asia including China. While this may not be possible under the current Chinese leadership, the diminution of the Soviet and U.S. threat to China may make China amenable to some type of arrangement acceptable to India. The situation would seem ripe for a regional security arrangement with credible international guarantees.

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[50]Rodney W. Jones, op. cit., p. 119.

Regional security arrangements would have little utility in preventing the acquisition of nuclear, biological, or chemical weapons when their purpose is to be used in wars resulting from territorial disputes, or to gain regional hegemony. Islamic countries, for example, claim to have manufactured and deployed chemical weapons (and are developing other categories of weapons) in response to the Israeli development of nuclear weapons. But, as succinctly put by Rolf Ekéus, those who "praise chemical weapons as the poor man's bomb overlook the fact that these weapons are only effective as terror-means against unprotected civilian populations and against poorly equipped military forces. The poor man is indeed the first victim of the poor man's bomb."[51] In fact, except for their shameful use against the Kurds by Iraq, chemical weapons have thus far mostly been used in border disputes. Nonetheless, even though the primary motivation for developing such weapons may have little to do with Israel, the deterrence argument must be addressed at a diplomatic level.

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[51]Rolf Ekéus, "Chemical Weapons and the New Global Security Structures," Chemical Weapons Convention Bulletin, Quarterly Journal of the Harvard-Sussex Program on CBW Armament and Arms Limitation, Issue No. 16, June 1992.

VI. FUTURE CONTROL OF NUCLEAR WEAPONS

There are no good or simple solutions to proliferation of nuclear, chemical, and biological weapons in the Third World. Global agreements like the chemical weapons treaty can help, but are not likely to solve the problem. The best that can be done is to strengthen the disincentives to whatever degree is possible, and offer alternative approaches to resolving regional disputes. Lacking a credible and enforceable world-wide regime for the control of nuclear and other weapons of mass destruction, U.S. policy is likely to be a mix of the approaches outlined above. Which approach is used will depend on the nature of the threat, the country or region involved and what is viewed as acceptable and justifiable by the U.S. public.

Ultimately, the spread of weapons of mass destruction in the Third World can only be controlled within a structure of international law coupled with a credible and carefully elaborated system of global law enforcement. This means that nations will have to delegate some elements of sovereignty to an international body, possibly the United Nations with an expanded Security Council restructured to reflect the realities of today's world.[52]

Because of the breakup of the Soviet Union, the current epoch may offer a unique opportunity to again consider whether all nuclear weapons should be put under international control. The initial attempt to place nuclear weapons under international control dates back to just after World War II, and has come to be known as the "Baruch

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[52]Japan and Germany, the second and third largest contributors to U.N. activities after the United States, are the two states most commonly cited as deserving permanent Security Council membership. Japanese Prime Minister Kiichi Miyazawa was particularly direct at the U.N. Security Council summit convened in New York on January 31, 1992, "saying that membership on the council must be 'more reflective of the realities of the new era.' In case anyone failed to get the message, his press secretary, Masamichi Hanabusa, later said Tokyo expected a Security Council seat by 1995, the U.N.'s fiftieth anniversary. Otherwise, he added, Japan would increasingly resent 'taxation without representation.' Germany's approach is more low key. In the short term, Germany seems to hope that Britain and France will informally 'Europeanize' their seats as the European Community draws closer together." (Tad Daley, Bulletin of the Atomic Scientists, April 1992, p. 38.)

plan" after Bernard Baruch who was appointed by President Truman to prepare a definitive plan for the control of atomic energy.[53]

Today, because of the world-wide existence of large nuclear arsenals, the Baruch plan can no longer offer a basis for the international control of nuclear weapons. A new approach is needed: it must be acceptable to the advanced weapon states; offer adequate security to a country like Pakistan, that would prefer not to build nuclear weapons, but feels impelled to do so because of the Indian program; and prevent the development of nuclear weapons in a country, like Iraq, that seeks hegemony over a given region. While there are many approaches that could be taken, only one is offered here. It is intended as a "straw man" to stimulate thought and discussion.

The approach suggested is a logical extension of the North Atlantic Treaty, with its many references to the Charter of the United Nations. It has two principal components, nuclear weapon control and international law:

> I. The existing nuclear forces of the advanced weapon states would be put under the control of an expanded U.N. Security Council. The structure for accomplishing this could be modeled on NATO. The forces would remain under the nominal control of each of the advanced weapon states, meaning they could be withdrawn (albeit not without significant political cost) at any time. The intent of such an arrangement would be to satisfy both individual and collective security concerns. In time, they might be operated by international crews under a rotating United Nations Commander-in-Chief for Strategic Forces (U.N. CINCSTRAT). The purpose of these forces would be: (1) to extend a credible, internationally guaranteed nuclear umbrella to non-nuclear weapon states; and (2), to deter the use of nuclear weapons by nuclear weapon states whose forces are not under U.N. control.
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> II. A carefully delineated structure of international law would be created to prohibit the development of nuclear weapons by any additional nations. One possible approach to achieving this would be to induce all non-nuclear weapon states to become signatories to the

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[53] **See Appendix III.**

> NPT, and expand the existing NPT regime to include non-declared facilities. Enforcement would be guaranteed by increasingly debilitating economic sanctions,[54] with the ultimate guarantee being military force under U.N. auspices.

Under such a regime, non-nuclear-armed nations must be confident that the weapons placed under international control will not represent a threat to them, even if they engage in a conventional war that threatens interests vital to the West. For example, Iraq during the Gulf war would have had to be confident that the U.N. coalition would not use nuclear weapons even if the coalition sustained heavy casualties and was unable to reverse the invasion of Kuwait. And, most importantly, nations threatened by nuclear weapon states whose forces are not under international control must believe that if nuclear weapons are used against them the U.N. force will indeed retaliate; i.e., the international nuclear umbrella must be credible.

The force levels required to extend a nuclear umbrella to non-nuclear weapon states and deter those states whose nuclear weapons are not under United Nations control are minimal compared to post-START levels. This is because, outside the advanced weapon states, only Germany and Japan have the economic resources to produce large numbers of nuclear weapons and their associated delivery systems. Force levels would therefore be more likely to be determined by political factors reflecting the relationship between advanced nuclear weapon states than military need.

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[54]As mentioned earlier, such sanctions should punish the ruling elites, not the general population. A possible exception to this precept is the case of a democratic state where the citizenry inherently has the power to change the leadership.

APPENDIX I: BACKGROUND ON THE MIDDLE EAST

While a comprehensive background for Arab and Iranian society is beyond the scope of this report, it is important that there exist a common basis for thinking about contemporary Middle-Eastern social and political realities. The Middle East is an area that is subject to powerful external, regional and local forces of change. These are stimulated by interaction with the modern world because of Arab and Iranian oil reserves and the presence of a powerful modern state, Israel, that represents an enemy with extensive western ties.

In general, Iran and the Arab countries of the Middle East share not only a common historical heritage but also what can only be characterized as a pre-modern social structure. For example, the Syrian ruling elite, with control over the country's intelligence services, armored and air military units, are a close kinship group centered around President Hafiz Al-Assad and are members of his previously disadvantaged 'Alawi sect (an offshoot of the Shi'i branch of Islam), allied to some Sunnis, and ruling over a Sunni majority; similarly, the ruling elite of Iraq is also a close-knit kinship group centered about Saddam Hussein. They derive from rural people of lower-middle class origins who belong to the minority Sunni sect and rule over a majority Shi'a population. In both countries the ruling elite come from the same rural class and represent a minority kinship grouping. Both rose to power through the relatively modern and secular Ba'th party. Power is maintained through not only an extensive and efficient system of coercion and control, but also by providing welfare, economic advancement, and ideological indoctrination.

Arab social structure has been characterized as being patriarchal in nature. The structure of family, clan, and religion satisfy the basic material and security needs of the people, while providing an identity as well. Nationalist feeling is derived from Islamic religious consciousness, not secular ideology. Neither in theory or in practice does Islam accord full equality to those who hold other beliefs or practice other forms of worship.

A particularly important point for understanding the Islamic world is that there is no separation of Church and State as exists in America.[55] The "very notion of a secular

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[55]Some authors, however, believe that "Islam is now at a pivotal and profound moment of evolution, a juncture increasingly equated with the Protestant Reformation....In many ways Islamic societies now find themselves in the opening rounds of what the West went through in the sixteenth and seventeenth centuries

jurisdiction and authority -- of a so-to-speak unsanctified part of life that lies outside the scope of religious law and those who uphold it -- is seen as an impiety, indeed as the ultimate betrayal of Islam."[56] Perhaps the most important exception to this is the Turkish republic whose first president, Kemal Atatürk, introduced a set of laws that formed the legal basis for the separation of religion and state. These effect of these laws has been weakened by the reintroduction of compulsive religious education in the state schools, and the full participation of Turkey in Islamic Bloc[57] activities.

In the Islamic world, legal scholars often interpret the Shari'a (the holy law of Islam) in ways intended to legitimize contemporary rulers. Indeed, political and religious authority are often embodied in the person of the ruler, whose rule is often arbitrary and autocratic in nature. In Saudi Arabia, for example, the king is both a religious Imam and chief tribal leader. Even Syria and Iraq, who have attempted to replace Islam as a legitimizing device with what might charitably be characterized as an "Arabist" ideology,[58] find it expedient to return to Islam as a basis for legitimization in time of crisis.

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in redefining both the relationship between God and man and between man and man." [R. Wright,Foreign Affairs 71, 131 (1992)]

[56]Bernard Lewis, "The Political Language of Islam" (The University of Chicago Press, Chicago 1988).

[57]The Islamic Bloc consists of more than forty Muslim governments who, despite differences of structure, ideology and policy, consult and cooperate on a variety of issues. The Bloc is active in the United Nations and elsewhere.

[58]This pan-Arabist ideology grew out of the Movement of Arab Revival, a nationalist study group founded by Michel Aflaq and Salah al-Din Bitar in the early 1940s. Shortly after its founding, it was renamed the Ba'th (renaissance) movement. The movement ultimately gained political power only in Syria and Iraq. Hafez al-Assad, the President of Syria, and Saddam Hussein both established repressive, autocratic regimes, Assad through the 'Alawi sect to which he belonged, and Hussein through the Takriti kinship group. Through the years they have become bitter enemies. In the early 1960s, Michel Aflaq was forced to flee Syria and seek refuge in Iraq. In 1971 he was sentenced to death in absentia for treason against his native Syria. He died in 1989 after undergoing unsuccessful

In addition to Islam, rulers can appeal to transnational symbols. Arabs identify with multiple communities, some of which do not correspond to state boundaries drawn at the end of the colonial period.[59] "Nasser challenged the legitimacy of the monarchs in Jordan, Saudi Arabia, and Yemen by appealing to Arab nationalist and republican symbols. Ayatollah Khomeini challenged the strength of the Saudi royal family's association with Islam and its independence from imperialism. Saddam Hussein more recently appealed to Arab nationalist aspirations in Egypt, Syria, and Saudi Arabia. The

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heart surgery in Paris. Bitar recognized that both Assad and Hussein were becoming increasingly cut off from the mass of the people. After fleeing into exile in Paris he founded a newspaper highly critical of both the Iraqi and Syrian regimes. "He was gunned down just off the Champs Elysée on 21 July 1980, shot once in the back of the head by a professional assassin who used a silenced pistol. No one ever doubted that it was the Iraqis who pulled the trigger, taking vengeance against one of the founders of their party who spoke out against the excesses of the regime, and who refused to join his friend and colleague Aflaq in Baghdad and support that section of the divided party." [J. Bulloch and H. Morris, "Saddam's War" Faber and Faber, Boston 1991), p. 52].

[59]A timely example of the manner in which borders were drawn is the case of the border between Iraq and Kuwait. In 1923 Major J.C. More, who was the British political agent for Kuwait, placed a large notice at the southern edge of some date palms with the words, "Iraq-Kuwait Boundary." The board was subsequently removed by the Iraqis on several occasions and apparently replaced by the British in an incorrect position. The Iraqis also planted additional date palms south of Safwan in the mid-1940s. The border location was lost and is still a subject of controversy between Iraq and Kuwait. As of December 1991, a U.N. Iraq/Kuwait Boundary Demarcation Commission was still trying to find More's original spot. No more thought went into the placing of other borders. Iraq, with an estimated population of about 16 million, was given a coastline of some thirty miles with its outlet to the Gulf almost blocked by the two Kuwaiti islands of Warba and Bubiyan; Kuwait, little more than a city state of under two million people, was given 310 miles of coastline. Saddam Hussein is not the first Iraqi ruler to object to these arrangements. For a fascinating account of this history, see: Theodore Draper, "The Gulf War Reconsidered" New York Review of Books, 39, 46 (January 16, 1992), and the references cited there.

Gulf War did not end these efforts to delegitimate regional rivals; to the contrary, it fueled them."[60]

[60]**Richard K. Herrmann, op.cit., p. 63.**

APPENDIX II: BACKGROUND ON CHINA

> *Actually up till now we have had no theory, correct or incorrect, that could tell us what our future will be like. We used to say 'socialism.' Now we say 'Chinese-style socialism.' What is 'Chinese-style socialism'? Just a name.*
>
> -Fang Lizhi, dissident astrophysicist, 1985

China is no longer the same as the People's Republic proclaimed by Mao Zedong[61] in Tiananmen Square on 1 October 1949. No brief Appendix can do justice to the history and underlying social transformation that has taken place, nor will this be attempted here. Instead, the purpose of this Appendix will be to describe the current status, particularly in economic and political terms, and to identify issues for the future.

While centrally planned, command economies were initially successful in industrializing the relatively backward Soviet Union and China, both ultimately recognized the failure of their economies to compete in the modern world. Growth in centrally planned economies is limited by bureaucratic constraints, technology and the lack of an adequate infrastructure. It is also uneven, being concentrated in heavy industry for the production of capital goods. The primary sector of agriculture, the secondary industrial sector devoted to consumer goods, and the service sector were all underdeveloped.

There is an essential difference between the approach taken by the Soviet Union and China to resolve their difficulties. Under Gorbachev, the Soviet Union of the late 1980s stressed political reform as the key to economic change; the Chinese Communists, on the other hand, argue for the reverse order, maintaining that democratization is a slow process which must first be underpinned by the spread of substantial economic

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[61]There are two ways of romanizing the Chinese language. The older style, known as the Wade-Giles system, would render Mao's name as "Mao Tse-tung" and the capitol city of the Hopeh province as "Peking" (this city has also been transliterated as "Peiping"); the Pinyin system, introduced by the Communist Chinese government in an attempt to simplify the language, would write these as "Mao Zedong" and "Beijing." The Pinyin system has apparently been widely accepted, with the possible exception of some elements on Taiwan.

prosperity. The key question is whether or not the Communist Party can survive economic prosperity brought on by market reforms.

The strategy for the preservation of Communist rule has been clearly enunciated by Deng Xiaoping, the architect of the new China: "In the end, convincing those who do not believe in socialism will depend on our nation's development....If we can reach a comfortable standard of living by the end of this century, then that will wake them up a bit. And in the next century, when we as a socialist country join the middle ranks of the developed nations, that will help to convince them. Most of these people will genuinely see that they were mistaken."[62] Nonetheless, many Chinese believe their increasing living standard is due to capitalism not socialism.

Major changes in China's economic policy date back to just after Mao's death on 6 October 1976 and the purge of the "gang of four."[63] The changes in economic emphasis, away from Soviet-style central planning, were made in the December 1978 Plenum of the Chinese Communist Party. The two principal changes "were in the attitude toward foreign imports and foreign technology and in the role of material incentives in motivating workers."[64] The Chinese attitude toward transnational corporations has also changed dramatically as evidenced by official pronouncements of the "open door" policy.

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[62]Deng Xiaoping, *Economic Daily*, as quoted in The New York Times, December 17, 1991, p. A7.

[63]The "Gang of Four" (the name derives from a shorthand expression used by Mao in a private memorandum) consisted of Jiang Qing (Mao's wife), the Shanghai-based Party leader Zhang Chunqiao, the polemicist Yao Wenyuan, and Wang Hongwen an ex-worker from Shanghai. Deng Xiaoping, who was Party General Secretary from 1954-66 and a reform leader beginning in 1978, maintains that Mao was misled in his final years by his Minister of Defense Lin Biao and his wife Jiang Qing who headed the Gang of Four. Lin Biao died in an aircrash in 1971 allegedly while fleeing the country when a plot to assassinate Mao was exposed. See, for example: J. Gittings, "China Changes Face: The Road from Revolution 1949-1989" (Oxford University Press, Oxford 1989).

[64]D. H. Perkins, "China: Asia's Next Economic Giant?" (University of Washington Press, Seattle 1989), p. 49.

"Transnationals are no longer viewed as tools of capitalist exploitation but as agents and resources that can serve the purposes of Chinese development."[65]

Today, in the early 1990s, the Chinese economy has a growth rate of some 6 percent, low inflation, increasing foreign investment, and exports and foreign exchange at record levels. This follows a severe recession that began in late 1989 and has only recently abated, and inflationary pressures in 1985 that caused rising resentment among China's urban population. Most of the current growth is coming from private and collective enterprises and not the state owned sector.

The state sector is now relatively small. It accounts for about one-third of China's gross national product and 18 percent of the labor force. Goods and services purchased by the Government amount to only six percent of the GNP. But, while 40 percent of the state enterprises are losing money, the remaining 60 percent "are the state's main source of income and the backbone of the socialist economy....so whether we can revive them affects not only the stability of the national economy, but also the status of the public ownership economy and the solidity of the entire socialist system."[66]

While it is not impossible that Deng may prove correct in his view that economic prosperity will preserve Communist rule, it is not the most probable future. If economic reform is allowed to continue, a far more likely possibility is that China will follow the East Asian pattern of development exemplified by Japan, Korea, Taiwan, Hong Kong and Singapore. The East Asian development pattern constitutes a new type of political economy that is neither Western or communist. Countries fitting into this category of industrial state have been termed "Capitalist Developmental States" whose strength "lies in its partnership between bureaucrats and industrialists; it is a variant that traditional political and economic theory has overlooked."[67] The argument being offered here is that the demise of the Communist Party, after the current leadership is replaced, is not

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[65]Teng Weizao and N.T. Wang, Eds., "Transnational Corporations and China's Open Door Policy" (Lexington Books, Massachusetts 1988), Introduction.

[66]Communist Party leader Jiang Zemin, as quoted in The New York Times, December 18, 1991, p. A6.

[67]Karl van Wolferen, "The Enigma of Japanese Power: People and Politics in a Stateless Nation" (Alfred A. Knopf, New York 1989). This book is a must for anyone wanting to understand U.S.-Japanese relations.

inevitable. Nor will China necessarily follow the course set by the disintegration of the Soviet Union. Instead, the Party may transform itself into a series of interlocking "ministries" that would form a partnership with industry along the East Asian pattern. This is especially probable since the Chinese people fear political chaos far more than the current authoritarian regime.

Under such a transformation, real power would be split between the "ministries" and industrial conglomerates. The structure might be something like that found in Japan, where there is a complex of overlapping hierarchies with a political head holding no real power. In such a system one could introduce "democracy" in form, but like Japan and unlike the U.S., elections would pose no real threat, there being sufficient "consensus" to effectively have a one-party system.

The breakup of the Soviet Union has caused China to lose strategic leverage with both the successor states to the Soviet Union and the United States. It is interesting to note that since 1989 China has increased its military budget by about 50% to $6.8 billion in 1992.[68] The question is, why? Most analysts might point to the issue of whether or not Taiwan will declare independence. But this seems unlikely. In February 1972, President Nixon signed the Shanghai communiqué agreeing to not challenge Beijing's position that there was only one China of which Taiwan was a part. After Deng Xiaoping's return to power, he agreed that China would not reclaim Taiwan by force.[69] From the Chinese perspective, there are three areas that might justify increased military expenditures:

(1) The Xinjiang region of northwest China is inhabited by Muslims of Turkic origin who are ethnically related to the people of Uzbekistan, Kyrgyzstan, Tajikistan and Kazakhstan. Guns are apparently being smuggled into Xinjiang from Pakistan and Afghanistan, and there has been armed rebellion in the recent past.

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[68]New York Times, April 21, 1992.

[69]A short, but cogent, history of the relationship between the United States and China has been given by: Nancy Bernkopf Tucker, "China and America: 1941-1991" Foreign AffairsVol. 70, No. 5, P. 75.

(2) China claims a large part of the South China Sea "embracing virtually everything between Vietnam, Malaysia and the Philippines."[70] The area is thought to contain oil, natural gas, and phosphorus deposits.

(3) The Chinese-Indian border war of 1962 was over a large swath of Indian land in the Himalayas that is claimed by China on historical grounds. There is also Mongolia and territory taken by Russia in the last century.

The breakup of the Soviet Union may thus offer the Chinese new opportunities and increased security risks.

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[70]New York Times, April 21, 1992. The waters of the southern part of the South China Sea are subject to overlapping claims by China, Vietnam, the Philippines, Malaysia, Indonesia, Taiwan and Brunei. Of particular importance are the waters adjacent to the Spratly Islands, called Nansha by China. Naval battles were fought by China and Vietnam over these disputed waters in both 1974, after Vietnam awarded oil concessions to Western companies, and in 1988 when Chinese forces sank two Vietnamese warships. An oil exploration contract was signed on May 8, 1992 by China and the Crestone Energy Corporation of Denver covering 9,700 square miles of waters in the area of the Spratly Islands some or all of which are claimed by Vietnam, Taiwan, the Philippines, Malaysia and Brunei as well as China. The chairman of the Crestone Energy Corporation is quoted as saying "I was assured by top Chinese officials that they will protect me with their full naval might." [New York Times, June 18, 1992] Vietnam has said that Beijing's oil exploration plans in the Spratlys are threatening the stability of the region. On July 22, 1992, the foreign ministers of the Association of South-East Asian Nations, comprised of the Philippines, Malaysia, Brunei, Indonesia and Thailand, issued a declaration at their annual meeting urging that the dispute be resolved "by peaceful means, without resort to force." Philippine President Fidel V. Ramos warned during the conference that diplomatic failure could lead to "perilous developments." [New York Times, July 23, 1992]

APPENDIX III: THE 1946 BARUCH PLAN FOR THE INTERNATIONAL CONTROL OF NUCLEAR WEAPONS

For completeness, it would seem appropriate to give here a brief recap of the history of the Baruch plan. On November 15, 1945, President Truman, with Prime Ministers Clement Attlee and Mackenzie King, announced that the governments of the U.S., Britain, and Canada were agreed on the need for international action, under the auspices of the United Nations, to provide controls over atomic energy to ensure that it would be used only for peaceful purposes. Subsequently, a proposal to establish a U.N. Commission on Atomic Energy was presented to the General Assembly of the U.N., then meeting in London, on behalf of the five permanent members of the Security Council. It was adopted without amendment by unanimous vote.

The Acheson-Lilienthal report, produced by a board of consultants named by Secretary of State James Byrnes, was released in March 1946. It was summarized by Under Secretary Acheson as offering "a plan under which no nation would make atomic bombs or the material for them. All dangerous activities would be carried on -- not merely inspected -- by a live, functioning, international authority..."[71]

President Truman then appointed Mr. Bernard Baruch to chair a commission to prepare a definitive plan for the control of atomic energy. The Baruch plan was presented to the U.N. Atomic Energy Commission on June 14, 1946. "The plan provided for the creation of an International Atomic Development Authority, which would be entrusted with 'everything' -- beginning with the raw material and including control or ownership of all atomic energy activities that

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[71]As quoted in: Lewis L. Strauss, "Men and Decisions" (Doubleday & Co., Inc., New York 1962), p. 353.

might be dangerous to world peace. It would have the power to control, inspect, and license all other atomic energy activities. It would be charged with the duty of fostering the beneficial uses of atomic energy and with responsibility for research and development to detect any misuse of the new knowledge. The plan also provided that, when an adequate system for control and inspection had been agreed upon and had been put into operation, the manufacture of atomic bombs should cease. Existing bombs would be disposed of pursuant to the terms of a treaty, and the authority would be given full information by the United States concerning the method of producing atomic energy.

The Baruch Plan also provided that penalties should be established for illegal possession or use of an atomic bomb and that the punishment should be 'condign,' fitting -- in other words the punishment should fit the crime. The resolution proposed by the United States after months of debate was eventually defeated in the Security Council by a surprise veto of the Soviet delegate."[72]

The reasons for the veto are now clear. The Soviet Union already had a relatively advanced nuclear weapons program. The program was initiated after American scientists had decided in April 1940 to stop publishing papers that might help Germany develop an atomic bomb. This was noticed by the young physicist G.N. Flyorov. "From the 'dogs that did not bark' Flyorov deduced that nuclear research in the United States had now been made secret."[73] After an appeal to I.V. Kurchatov, Flyorov wrote a letter to Stalin explaining the nature of the "uranium problem." "He pointed to the secrecy of

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[72]Lewis L. Strauss, ibid.

[73]David Holloway, "Entering the Nuclear Arms Race: The Soviet Decision to Build the Atomic Bomb, 1939-45." Working Papers Number 9, International Security Studies Program, The Wilson Center (Smithsonian Institution, Washington, D.C. 1979).

research in America and called for the immediate re-establishment of a nuclear laboratory. 'It is essential,' he wrote, 'not to lose any time in building the uranium bomb."[74] The decision to build a bomb was apparently made at the end of May 1942.

[74]David Holloway, ibid.