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U.S. Defense Planning for a More Proliferated World

Lewis A. Dunn, Project Leader

PREPARED FOR THE OFFICE OF
THE ASSISTANT SECRETARY OF DEFENSE
PROGRAM ANALYSIS AND EVALUATION

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FINAL REPORT

U.S. DEFENSE PLANNING FOR
A MORE PROLIFERATED WORLD

April 1979

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By

Lewis A. Dunn

with contributions from
Norman Friedman
Colin S. Gray
William H. Overholt
William Schneider, Jr.
George H. Wittman

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Executive Summary

A growing number of countries may decide to acquire nuclear weapons in the next two decades. Prior analysis of the implications of more widespread proliferation for U.S. defense planning can, among other things:

- improve U.S. ability to respond to probable threats to U.S. security interests by thinking through in advance how to cope with such threats rather than depending on primarily ad hoc responses;
- identify new or adapted capabilities that might be developed and deployed in anticipation of more widespread proliferation, making the United States better equipped to deal with the kinds of threats that may emerge in this defense environment;
- by developing such capabilities, contribute to the deterrence of some of the most dangerous scenarios; and
- identify new or modified scenarios for on-going contingency planning, including perhaps a half-war scenario in which a regional opponent possessed nuclear weapons.

Potential problems or threats arising in a more proliferated world and having such military planning implications could include:

- impact on the U.S. ability to project military power and intervene abroad;
- direct nuclear attack or the threat of attack on CONUS by a new proliferator;
- direct nuclear attack or threat of attack by a new proliferator against a U.S. ally or friend;
- impact on U.S.-Soviet relations and possibly even on the central strategic balance; and
- impact on U.S. relations with a newly nuclear ally or close friend.

1. Impact on U.S. Power Projection and Intervention Abroad

Whether by providing a presence with a naval task force, the forward basing of military forces, or by direct military intervention, the United States has projected its power abroad with general purpose forces as a means of supporting political objectives and protecting its security interests. These operations have been carried out against opponents incapable

of posing a direct threat to the survival of the projection forces so deployed even if resolute opposition was encountered. This could change in a more proliferated world because the concentrated intervention assets, e.g., a carrier task force, a Marine Battalion Landing Team (BLT), or an Army airborne or air assault battalion, could constitute particularly well suited targets even for only a rudimentary nuclear weapon capability possessed by a hostile new proliferator.

The presence of those hostile nuclear weapons in tactical situations where they previously had been absent, e.g., in a newly nuclearized Persian Gulf, might require some of the following kinds of modifications in U.S. military planning and local operational tactics:

- acquisition of substantially higher confidence intelligence than is obtained normally about these countries, including both strategic intelligence concerning the nuclear readiness, capability, doctrine, and intentions of a regional new proliferator needed for any attempt to neutralize that hostile nuclear force and tactical intelligence about the nuclear assets of that hostile proliferator to permit the local commander to take suitable protective measures where the National Command Authority (NCA) has decided not to neutralize the potential nuclear threat;
- tactical innovations for "nuclear-scared" operations against regional new proliferators, e.g., dispersal of landing forces, a stretching out of the naval task force air defense barrier, and planning operation with smaller, more dispersed, and more autonomous intervention units;
- improved global communication systems to ensure the capability for supporting such more autonomous and dispersed operations in remote regions while maintaining tight and timely direction by the NCA;
- adaptations of the structure of intervention forces, e.g., the provision of additional field air defense capabilities, of special units trained in seizing nuclear weapon storage sites, and of mobile communication terminals for such forces;
- only in cases where there was a powerful incentive to eliminate the drawdown of currently deployed inventories or to avoid putting at risk units or capabilities earmarked for other contingencies, procurement of additional equipment to meet the above requirements, e.g., for augmented air defense batteries or mobile communication equipment; and
- training of both individuals with selected military operational specialties, e.g., combat engineers, and of selected units to deal with problems associated with response to the threat or use of nuclear weapons by a new proliferator or for operations aimed at pre-empting such use.

In a more proliferated world, conditions could arise in which consideration might have to be given to the use of U.S. strategic offensive or theatre nuclear forces to neutralize a hostile new proliferator's nuclear weapons and/or delivery vehicles, e.g., before intervening with con-

ventional forces to defend an ally from attack by a new proliferator or in the midst of such a mission if intelligence warnings indicated a probable imminent attack on U.S. intervention forces. However, because of a combination of range constraints, time urgency of the targets, lack of discrimination, political unacceptability of losses to local air defenses, and flexibility limitations, existing U.S. strategic offensive forces may not be appropriate "as is" for carrying out this anti-new proliferator mission. Comparable problems may constrain the use "as is" of U.S. theatre nuclear forces, e.g., SLCMs or aircraft armed with nuclear weapons and based on carriers already supporting U.S. intervention forces. Consequently, to provide the necessary range, discriminate targeting with nominal collateral damage, promptness, and assured penetration capability, some limited restructuring of U.S. strategic offensive and/or theatre nuclear forces to carry out this mission may be required. For example, a limited number of Titan IIs or Minuteman IIIs could be modified to augment their range by off-loading payload, to accept suitable nuclear or non-nuclear warhead packages, and to increase their accuracy with advanced guidance and post-boost control systems.

2. Lesser Power Nuclear Threats to CONUS

At least in the early stages of more widespread proliferation, those new proliferators or sub-national groups with access to nuclear weapons that might seek to threaten a nuclear strike on CONUS are likely to have to depend on primitive or unconventional modes of delivery. These include short range missiles fired from disguised surface ships, reconfigured civilian aircraft relying on deception to penetrate U.S. airspace, or the smuggling of the weapon into the United States across lightly patrolled borders. A U.S. response to this threat of nuclear attack might encompass:

- improved and more timely intelligence, particularly about sub-national groups that might attempt to smuggle a weapon into CONUS but also about new proliferators possibly seeking to use a nuclear weapon anonymously against CONUS;
- assistance to new proliferators to improve their physical security systems and reduce the likelihood of a sub-national group's theft of a nuclear weapon;
- enhanced border, coastal, and global surveillance and tracking capabilities, e.g., to monitor shipborne or airborne threats and for detection of clandestine penetration of U.S. territory;
- augmentation of existing but reduced and fragmented U.S. air defense capabilities as well as inclusion of this kind of threat among standard air defense planning and training scenarios;
- deployment of a light area ballistic missile defense perhaps capable of precluding damage from the low-order threats from those few new proliferators able to mount some form of missile threat toward the end of the first stages of more widespread proliferation;

- planning to ensure that civil defense procedures and practices include limited evacuation of possible target American cities or of parts of a city; and
- limited restructuring of U.S. strategic offensive forces--ranging from acquisition of suitable warhead packages for possibly limited proportional retaliatory strikes to increasing the range of any ICBMs that could be so used--to ensure their readiness and capability to carry out a retaliatory strike.

3. Nuclear Threats to U.S. Allies or Friends by New Proliferators

Situations which may require a U.S. response to the threat of a nuclear attack against an ally or friend by a new proliferator also could readily arise within a world of ten or fifteen new nuclear weapon states. A minimal response could entail unilateral or multilateral declaratory policy pledges of support in the event of such a threat or attack. More far-reaching responses could entail U.S. R&D on and acquisition of capabilities and contingency planning and training for:

- rapid overseas deployment of air defense equipment and even units to limit damage from low-order threats from a new proliferator;
- eventual overseas deployment of movable light area BMD against the limited ballistic missile threats likely to characterize this scenario;
- provision of a pledge of surrogate retaliation on behalf of the attacked non-nuclear ally, whether by a Program of Cooperation (POC) as exist with U.S. NATO allies or earmarking U.S. forces; and
- planning for rapid assistance to the ally or friend in post-nuclear attack recovery.

In the event of a decision to provide a pledge of surrogate retaliation, that, too, might require limited restructuring of U.S. strategic offensive forces to improve their range, target discrimination, and flexibility. A warhead with a series of variable yields substantially under 100 kt., perhaps as low as the sub-kiloton range, could most fit the need for an appropriate surrogate retaliatory strike on behalf of a non-nuclear ally after a new proliferator's use of a crude low-yield nuclear device. The availability of such a discriminate response in which collateral damage was minimized could be a critical consideration in the readiness of the United States to respond as pledged and in the political perception abroad of that readiness.

4. Impact on U.S.-Soviet Relations

The spread of nuclear weapons to conflict-prone regions may well enhance the risk of a U.S.-Soviet confrontation. Building on the 1971 "Accident Measures" agreement, a continuing U.S.-Soviet dialogue (as an

adjunct to or part of SALT) might focus attention on how to reduce that risk. Specific measures to be addressed might include:

- joint measures that could be taken, either bilaterally or through multinational institutions, to strengthen barriers to U.S.-Soviet conflict;
- agreement on limits to the pursuit of their competitive interests during regional disputes, e.g., agreeing to stand aside and "let the locals slug it out";
- in an attempt to slow the pace of events, steps that each side would agree not to take within a specified time period (one hour, one day . . .) after detonation of a nuclear weapon in a regional clash; and
- development of joint measures to reduce the risk of an accidental nuclear exchange among new proliferators, e.g., assistance in preventing unauthorized access and use of those countries' nuclear weapons.

Unilateral U.S. actions in response to the prospect of an increasing risk of U.S.-Soviet proliferation-triggered confrontations and crises also could be appropriate. Particular attention might be focused on strengthening those U.S. military capabilities that would contribute most to the likelihood of favorable crisis outcomes in the event of a failure of deterrence. That includes both strengthening U.S. force projection capabilities and at least mitigating present adverse U.S.-Soviet strategic forces trends in order to avoid a situation in which the Soviets possessed escalation dominance across the spectrum of potential use of force.

With two exceptions, there appear to be only limited implications for management of the central U.S.-Soviet strategic balance and the SALT process of more widespread nuclear weapon proliferation in the next 10-15 years. Whatever necessary unilateral U.S. and Soviet strategic forces adjustments were made to respond to the emergence of additional but most probably lesser nuclear powers probably would little affect their strategic relationship with each other. The two exceptions are:

- the sooner-than-usually-anticipated capability by hostile lesser nuclear powers to threaten CONUS or the Soviet homeland with ballistic missiles, perhaps due to rapid spread in the 1980s of space-booster technology, and
- the even more important--if for now highly unlikely--scenario of West German and Japanese acquisition of nuclear weapons.

Depending on the internal political stability of new proliferators and their nuclear doctrines--as well as on the level of continued U.S. involvement where a clash with them was conceivable--their access to missiles capable of threatening CONUS could warrant renegotiating the SALT ban on ballistic missile defense. If purchased, advanced light area ballistic missile defense should be capable initially of precluding damage from the very limited threat involved. And regardless of U.S. actions, Soviet fear of being encircled by lesser nuclear powers armed with ballistic

missiles could lead the Soviets to call for renegotiation of the 1972 ABM Treaty, affecting thereby U.S. requirements.

Japanese and/or West German acquisition of nuclear weapons could threaten the SALT-set limits on strategic forces and demand joint U.S.-Soviet action to hold in check the repercussions for the central strategic balance. For in response to that acquisition the Soviet Union well might seek to renegotiate the ABM Treaty (if it has yet to be set aside), renegotiate any SALT limits seriously constraining a build-up of its long-range strategic offensive forces and efforts to match any West German or Japanese SSBN programs, while the United States itself would come under pressure to respond to any such Soviet posture changes. Moreover, although these nations are now allied with the U.S., a scenario which might "push" one or both of them to the acquisition of nuclear weapons may also be under circumstances of a reversal of alliances where joint U.S.-Soviet action might be difficult to contemplate or where the U.S. itself might move first to reopen SALT-set limits on strategic forces.

5. U.S. Relations with a Newly Nuclear Ally or Close Friend

Thinking through in advance possible responses to acquisition of nuclear weapons by countries that are allies or close friends of the United States, many of whom figure prominently on lists of prospective proliferators, could help to manage better the repercussions for U.S. security interests of such an eventuality. Particularly if a country had violated any legal nonproliferation obligations, U.S. policy might lean toward the severing of residual ties and the imposition of sanctions. Increased risks of continued involvement also could suggest decoupling. But longer term factors could point toward U.S. efforts to:

- integrate and thereby constrain newly nuclear-armed allies within a broader security structure in an attempt to slow or limit a proliferation multiplier-effect;
- reduce the risk of local nuclear conflict by helping newly nuclear allies to acquire safe, physically secure, accident-proofed nuclear weapons; and
- influence the nuclear doctrine and practices of the new proliferator, reducing again the risk of local conflict.

Concern not to alienate possibly important regional powers by a punitive response as well as not to give the Soviets a free rein in regions of competitive U.S.-Soviet involvement also could incline U.S. policy toward accommodating newly nuclear allies.

* * * * *

Within a more proliferated world a range of limited but important adaptations of U.S. defense planning appears likely to be required. On-going contingency planning for protecting U.S. security interests within

that changed defense environment may help to refine the tentative propositions developed in this report, identify other implications for U.S. defense planning and posture, and thereby improve later U.S. responses.

Introduction: Contingency Planning for a More Proliferated World

India's detonation of a nuclear explosive device in May 1974 renewed concern about the spread of nuclear weapons to additional countries. That has led to the adoption by the United States of new nonproliferation initiatives, including particularly an attempt to foster a new international consensus for managing the risk of nuclear weapon proliferation associated with the worldwide use of civilian nuclear power. But notwithstanding recent nonproliferation initiatives, a growing number of countries may decide to acquire nuclear weapons in the next ten to twenty years.¹

a. Prospects for Proliferation

Four factors could contribute to more widespread proliferation in the next two decades:

- the continuing erosion of scientific and industrial barriers;
- the growth of incentives for acquisition of nuclear weapons;
- the decreasing impact of disincentives; and
- the presence of a proliferation multiplier-effect.

First, because of the global process of general industrial and technological development as well as the spread of civilian nuclear energy programs,

¹For elaboration see Lewis A. Dunn and Herman Kahn, Trends in Nuclear Proliferation, 1975-1995 (Hudson Institute, HI-2336/3-RR, 15 May 1976). Report prepared for the U.S. Arms Control and Disarmament Agency.

an increasing number of countries are coming to possess the requisite scientific and industrial foundation for making at least rudimentary fission weapons. For example, by the mid to late 1980s several dozen countries probably will have sufficient plutonium in the spent fuel of their nuclear power programs to make 3-6 crude nuclear weapons--assuming their capability to build a reprocessing plant to separate that plutonium from the spent fuel.² Or, some, if not many, of these countries also would be capable in the mid 1980s of building both a reactor dedicated to plutonium production and the associated reprocessing facilities. Thus, currently existing scientific and industrial barriers to nuclear weapon acquisition must be regarded as "wasting assets."

Second, incentives for acquiring nuclear weapons, whether related to security concerns, pursuit of status and influence, or domestic political and bureaucratic factors, also could increase significantly in the next decades. For example, an erosion of U.S. alliances in Asia already has engendered growing security concerns that increase the prospects of Taiwanese or South Korean decisions in the 1980s to acquire nuclear weapons. And, depending on the U.S. response to any such limited proliferation in Asia, Japanese perceptions of their security and the reliability of the U.S. alliance connection could be affected adversely much as they were by the U.S. defeat in Vietnam and the partial withdrawal of U.S. ground forces from South Korea. Or, in regions where the United States is not heavily involved,

²Albert Wohlstetter et al., Moving Toward Life in a Nuclear Armed Crowd? (Pan Heuristics, 22 April 1976). Report prepared for the U.S. Arms Control and Disarmament Agency, pp. 14, 249-261.

one or another traditional rival--Pakistan or India, Argentina or Brazil, or Iraq and Israel (overtly)--may decide to acquire nuclear weapons to shift the military power balance in its favor, gain regional or global status and influence, or preempt an anticipated decision by its opponent to do so. To still other countries such as an isolated South Africa confronting an increasingly hostile world, a nuclear weapon detonation might be seen as a symbolic political assertion for both foreign and domestic consumption of the will to resist.

Third, the disincentives to acquiring nuclear weapons also may decrease. For example, while much attention currently focuses on the threat of sanctions to enhance those disincentives, past experience with sanctions' effectiveness, whether against Mussolini's Italy in the 1930s or Rhodesia in the 1960s and 1970s, has been poor. But if sanctions are imposed against a new proliferator in the 1980s and are unable to coerce that country into reversing its course of action, at least some other countries' perceptions of the disincentives to acquisition of nuclear weapons would diminish. Nor is it clear that threatened sanctions would be carried out. Particularly if some further proliferation does occur, countries may be reluctant to sacrifice the other foreign and national security policy interests adversely affected by the imposition of sanctions.

Finally, there is likely to be a proliferation multiplier-effect with decisions by key countries to acquire nuclear weapons increasing significantly the probabilities of their neighbors and others with whom they may be linked following suit. That is, once some further proliferation occurs, chains of interconnected proliferation decisions may result--as,

for example, with a possible India, Pakistan, Iran, Iraq . . . proliferation chain; an Argentina, Brazil, Chile . . . one; or one comprised of Taiwan, South Korea, and eventually even Japan. Security concerns, status considerations, domestic bureaucratic and political pressures, and uncertainty about the costs of inaction would help drive that process. Consequently, the initial outcroppings in the 1980s of more widespread proliferation could set in motion a cascade effect leading more rapidly than expected to a world of 10 or 15 additional nuclear weapon states.³

b. Contingency Planning for
a More Proliferated World

There are several reasons for beginning now to think through the possible implications for U.S. military planning and posture of a more proliferated world. First, prior studies may improve our understanding of the potential problems for and threats to U.S. security interests within such a defense environment which, in turn, is likely to improve any later efforts to protect those interests if necessary. For with prior assessment of how possibly to cope with those threats primarily ad hoc responses could be avoided. Second, new or adapted capabilities that could be developed and deployed in anticipation of having to cope with the threats of a more proliferated world also might be identified. Such capabilities could run the gamut, for example, from more detailed intelligence monitoring of the evolving military capabilities of some more advanced developing countries

³For a discussion of responses to those initial outcroppings and of other nonproliferation policy initiatives, see Lewis A. Dunn, Changing Dimensions of Proliferation Policy (Hudson Institute, HI-2497/2-RR, 15 February 1977).

to the increased or more rapid procurement of advanced fleet and field air defenses to protect intervention forces from successful attack by a hostile regional new proliferator. Third, by focusing on threats to U.S. security interests in the event of such additional proliferation, potential modifications of contingency planning scenarios may be discerned. For example, while basically continuing to plan in terms of preparations for a non-nuclear 1/2 war within the 1 1/2 war posture, it also could be important to identify any significant variations of defense planning scenarios if that 1/2 war entailed a clash with a hostile country now in possession of a crude, say air deliverable, nuclear arsenal. Finally by thinking through in advance coping in a more proliferated world--and adapting U.S. defense planning as necessary--it may be possible to deter some of the more dangerous scenarios of that defense environment.

There are five categories of problems or threats within a more proliferated world with possible implications for U.S. defense planning:

- the impact of proliferation on the capability of the United States to project conventional military power and intervene in support of friends or allies abroad;
- nuclear attack or the threat of nuclear attack on CONUS;
- nuclear attack or the threat of nuclear attack by a new proliferator against a U.S. ally or friend;
- the impact on U.S.-Soviet relations and perhaps even on the central strategic balance; and
- the impact on U.S. relations with newly nuclear allies or close friends.

Each is examined in turn.

1. Force Projection in a More Proliferated World

Whether by providing a presence with a naval task force or by military intervention with ground forces and tactical air power, the United States

has projected its general purpose forces abroad in the postwar period. It is reasonable to assume that situations may arise in the future likewise requiring projection of such conventional power to protect U.S. security interests. But carrying out this mission in the presence of hostile nuclear weapons in tactical situations where they previously had been absent, e.g., a newly nuclearized Persian Gulf, could require:

- acceptance of a heightened level of risk;
- acquisition of higher confidence strategic and tactical intelligence than normally sought about the countries in question;
- tactical innovations for "nuclear-scared" operations against these regional new proliferators;
- improved communication systems permitting tight and timely control over more dispersed and autonomous operations in distant regions;
- adaptations of training programs and of force structure;
- an augmented self-sustained surge airlift capability not dependent on ground refueling for possibly politically sensitive operations;
- where a powerful incentive existed not to draw down or risk deployed inventories, procurement of additional quantities of equipment;
- heightened readiness for selected units;
- specialized R&D; and
- if it were thought desirable to have the option of neutralizing that local nuclear threat--or at least of retaliation for its use against U.S. intervention forces, limited restructuring of U.S. strategic offensive forces.

a. Heightened Level of Risk

U.S. force projection in the postwar era has been carried out against opponents who, while possibly able to offer resolute resistance, were incapable of posing a threat to the survival of U.S. forces so deployed. Confronting a regional opponent now armed with nuclear weapons, that relative overall invulnerability could change.

No weapon deployed before or since nuclear weapons has had anywhere near the comparable potential for the destruction of area targets. Historically, area targets have achieved survivability through attrition by active defenses, by attack absorption through the dispersion of point sub-elements of the area target, via passive techniques (e.g., camouflage, hardening, deceptive movements, etc.), and from the positional uncertainty gained by mobility. But in the presence of nuclear weapons, the entire area target is placed at risk if even one weapon penetrates the defenses and reaches the target.

The projection abroad of modern military forces, however, involves the deployment of what can be thought of as a set of area targets, including, for example, air bases, naval task forces, and concentrated assault units and landing teams. Consequently, from the adversary's perspective, these elements could constitute particularly well suited targets for even its rudimentary nuclear weapons, particularly if U.S. attention had not previously focused on reducing the threat of operating within such a nuclear environment in some of the ways discussed next.

b. Higher Confidence Strategic and Tactical Intelligence

One of the most critical determinants of the ability of the United States to project power abroad successfully is the quality of its strategic and tactical intelligence. The political leadership's confidence in the chances for success of a given military operation will be directly related to their confidence in the intelligence information about the hostile country. And while other factors, such as the potential consequences of inaction, may weigh heavily in a "go-no-go" situation faced by a U.S. President, the quality of intelligence information clearly will be critical.

Until now, however, the U.S. intelligence establishment appropriately has focused its efforts on acquiring detailed intelligence about the principal adversaries of the United States and not about those advanced developing countries that figure prominently on lists of prospective proliferators. Thus, it may be especially important to begin acquiring a substantially higher grade of strategic intelligence information about potential new nuclear weapon states than now is normally collected. Eventually this could include the gathering of high confidence intelligence on, for example:

- the size, readiness, and command and control procedures governing a potentially hostile new proliferator's nuclear force;
- the likely strategic doctrine of such new proliferators;
- and
- the precise location(s) of the adversary's nuclear assets.

In addition to such strategic intelligence required well in advance to shape the character of both the U.S. political and military response, more tactical intelligence about the status of the adversary's nuclear assets would be needed to support actual force deployment and military intervention in the face of those hostile nuclear weapons. Timely information about, for example, the alert status and present deployment of threatening nuclear assets could be particularly critical to permitting the local commander to take suitable protective measures where the National Command Authority had not decided--as discussed below--to neutralize the threat.

Further, if in the midst of the local mission it were decided by the National Command authority to neutralize the hostile nuclear force--perhaps because of intelligence warning that its use was imminent, such

strategic and tactical intelligence could be critical to success. In fact, possibly to a greater extent than in dealing with either the Soviets or the Chinese, accurate and complete knowledge about the potential opponent's nuclear assets would be demanded. For unlike the Soviet case where it is assumed that nuclear weapons would inflict damage on the United States and U.S. forces in a conflict and where Soviet possession of a limited number of previously unsuspected warheads would not be decisive, should the hostile new proliferator's arsenal be stored in and comprise four rather than three stockpiles or sixty rather than forty-five--or even fifteen rather than ten--warheads, failure to know that could be a serious flaw in contingency planning because the surviving capability could do relatively far greater damage. Consequently, greater accuracy, timeliness, and completeness of information appears required and that may, in turn, necessitate carefully monitoring these countries' nuclear weapon activities from an early stage.

c. Tactical Innovations for
"Nuclear-Scared" Operations

Tactical innovation could be required also. In a situation where hostile nuclear weapons in the hands of a new proliferator were present--even if only a small number of relatively crude nuclear weapons--U.S. military intervention may be far less "forgiving" of delays to develop suitable tactics and of partial successes than would be the case in more traditional military operations against non-nuclear regional powers. Consequently, prior study, selection, and mastery of appropriate adaptive tactics to minimize the threat posed by the new proliferator's nuclear force appear required.

While the specific "nuclear-scared" tactical innovations needed are likely to be scenario dependent, they could include the following kinds of adaptations:

- the stretching outward of the naval task force air defense barrier;
- changed air and amphibious landing techniques to avoid presenting a highly concentrated target;
- dispersed operations by many autonomous small intervention units; and
- preparations for the penetration of heavily defended point targets, including nuclear weapon storage bunkers.

d. Improved Global Communication Network

U.S. experience during the 1973 Middle East War with the complex communications systems that were expeditiously "tied together" to assure their connectivity with deployed naval units emphasizes the importance of having a high-grade, secure, jam resistant worldwide communication system to assure responsive command and control of deployed forces. This would be all the more so if "nuclear-scared" tactical responses to the threat to U.S. forces posed by a new proliferator's nuclear assets led to more emphasis on a combination of dispersal, autonomous unit actions, and similar arrangements. But to assure tight and timely control by the National Command Authority over deployed forces conducting operations against a new nuclear weapon state, adequate numbers of satellites along with sufficient mobile terminals would need to be deployed. For special units not normally organically equipped with mobile terminals, a special signals unit might have to be added to augment their communication capability.

e. New Training and Force Structure Requirements for Intervention Units

Training and personnel requirements could be affected as well. Problems and exercises dealing with responses to the use or threatened use of nuclear weapons by a new proliferator might be introduced as additional material in the training syllabus of selected military occupational specialties. For example, individual combat engineers might have to be trained in the dismantling or disarming of crude fission devices. In addition, appropriate unit training for those units earmarked for response to such a contingency could be required. Illustrative of that would be the exercising of shipboard washdown systems for decontamination after a nuclear near-miss by a new proliferator whose aircraft managed to penetrate fleet air defenses.

Further, more extensive modifications of the structure of intervention forces also could be appropriate. Potential changes might include, for example, requirements for:

- additional high grade defense batteries for standard battalions earmarked for use in these force projection contingencies, with the number and type necessary related to the character of available local delivery systems;
- additional organic close air support units in army aviation, i.e., attack helicopter squadrons;
- attached special operations units--such as Special Forces, Ranger, or SEAL detachments--that could be smoothly integrated into more traditional battalion operations and used to neutralize hostile local nuclear stockpiles;
- additional combat engineers capable of clearing and penetrating barriers associated with the protection of nuclear weapon storage sites who would also be capable of performing the specialized EOD (explosive ordinance disposal) associated with nuclear weapons; and
- more rapid and extensive deployment of advanced fleet air defense systems, e.g., AEGIS.

If the capabilities to meet these additional requirements, e.g., for augmented field air defense, are generated on an ad hoc basis in a crisis when a swift response is required, integrating them with other units could encounter considerable complications. This problem could be reduced by prior preparations for the operational dimension of integrating disparate skills on short notice. The feasibility of this solution to the added requirements for intervention forces is indicated by the occasional addition in World War II of disparate units to form larger ad hoc military organizations or "Combat Commands" for a particular set of circumstances. Although this practice has fallen out of favor, it could provide a useful operational model for integrating units to carry out the force projection mission in support of U.S. interests and allies in a more proliferated environment.

f. Augmented Self-Sustained Surge
Military Airlift Capability

One of the major assets of U.S. military forces is a high order of mobility provided in large part by military airlift. In future situations entailing U.S. force projection involving a new proliferator, however, U.S. allies and friends may prove even less ready than now to grant ground refueling rights. Fears of the political repercussions or even of nuclear attack in retaliation by the new proliferator could deter them. Further efforts to increase the capability of U.S. military airlift for self-sustained operations--such as those now underway to refit the C-141s for air refueling--could reduce the risk that a future U.S. force projection operation would be compromised by that reluctance of allies or friends to grant landing rights.

g. Limited Additional Procurement

As previously noted, some augmented capabilities, e.g., field air defense batteries, mobile communication terminals, and aircraft with longer range, may be required in a more proliferated world and there also could be increased incentives for more rapid deployment of other systems currently under procurement, e.g., AEGIS fleet defense. But significant added buys of such equipment would be required only where there was a powerful incentive to eliminate the drawdown of deployed inventories or to avoid putting at risk units or capabilities also earmarked for other contingencies. Rather, in most cases, these additional requirements could be met simply by increasing slightly the size of the buy for types of equipment normally procured. And because there already is allowance for attrition in conventional procurement practice, so providing a modest additional allowance for any attrition associated with this contingency of a more proliferated world should be feasible at relatively modest cost without degrading the readiness of active duty units.

Where specialized hardware was required, of course, procurement would be needed. However, rather than entailing purchase of costly items in large quantities, it is more likely that only small numbers would be required to meet the somewhat specialized scenarios associated with projection of U.S. power into a newly nuclearized region. That would be so, for example, with the possible development, say, of area denial munitions designed to preclude a new proliferator's use of key airfields for a limited period of time.

h. Heightened Force Readiness
Requirements for Selected Units

Given the probable political context of such a contingency, there could be scant opportunity for a protracted period of build-up before U.S. forces had to be projected abroad. For example, buttressing Saudi Arabian resolve to withstand nuclear threats from one of its neighbors within a nuclearized Persian Gulf might demand a rapid show of U.S. military support as well as the rapid transfer of any needed military assistance. Consequently, a high level of readiness would have to characterize the units earmarked for these missions--a requirement consistent, however, with the other missions these units are tasked with carrying out. Thus, probably only in the case of specific units required for those previously described augmentation purposes, e.g., mobile field air defense batteries or combat engineers with training in disarming nuclear weapons, would additional readiness measures be needed.

i. Specialized Research
and Development

The need for specialized hardware to meet contingencies associated with the projection of U.S. general purpose forces in a more proliferated environment could affect future R&D decisions. For example, design and development of munitions that would permit the protracted denial to an adversary's forces of a particular area, say an airfield at which its nuclear delivery vehicles were based, could be appropriate. Enhanced automated command and control systems also might be developed to facilitate the deployment and operation of many smaller autonomous units, while

R&D to continue improving capabilities for monitoring the location and status of a new proliferator's nuclear assets would be equally useful in diminishing the possible threat to U.S. intervention forces. Or to take a final illustration, if "nuclear-scared" tactical innovations result in naval units standing-off further from the theatre of operations, greater stress than in the post-Vietnam period may have to be placed on development of aircraft with a longer range, high loiter-time capability.

j. Limited Restructuring of U.S.
Strategic Offensive Forces

Conditions could arise in a more proliferated world in which the United States might want a capability to neutralize a hostile new proliferator's nuclear force with U.S. strategic offensive or theatre nuclear forces before or in the midst of its intervention with conventional general purpose forces. For example, on intelligence warning that a probable attack on U.S. intervention forces by the hostile proliferator was imminent, the National Command Authority could decide to suppress that threat by a preventive attack. But even short of that option, a capability to retaliate for the use of one or more nuclear weapons against local U.S. forces--and by that threat of retaliation to deter such an attack--also could be a concomitant of force projection in newly nuclearized regions.

Because the nuclear forces of most new proliferators of the 1980s and 1990s are likely to be comprised only of dozens of fission weapons deliverable limited distances with vulnerable tactical aircraft or perhaps short range surface-to-surface missiles it may appear at first glance that

neutralizing such a force would require virtually no modifications of existing or planned U.S. strategic offensive or theatre nuclear forces. Similarly it might be doubted that any changes would be needed to acquire the option of retaliating for use of nuclear weapons against U.S. intervention forces. But those conclusions would be erroneous. Instead examination of the problems with the alternative means of performing either of these missions with available capabilities suggests that some limited restructuring of U.S. strategic offensive forces could be a part of U.S. defense planning for force projection in a more nuclear proliferated world.

Obsolete ICBMs such as Titan II or Minuteman II or eventually Minuteman III could not be relied on to carry out these missions, in part because they may be unable to reach targets within distant new proliferators. These targets often are more than 8,000 or, in some cases, 9,000 or 10,000 miles from the U.S. heartland, exceeding the approximate range of the Minuteman II (6,000+ statute miles) and of the Titan II (7,000+ miles).⁴ The Minuteman III also would have difficulty meeting the range requirement, although in its case it would be possible to off-load payload to increase range, an option ruled out by the single large warhead on the Titan II and the Minuteman II.⁵

Aside from their possible inability to meet these range requirements, reliance on obsolete ICBMs might be precluded by another factor--their

⁴Colin S. Gray, The Future of Land-Based Missile Forces, Adelphi Paper No. 140 (London: IISS, 1977), p. 32.

⁵Ibid.

lack of discrimination. Not only would accuracy decrease at the distances in question, but the warheads on the Titan II and Minuteman II and III may inflict far more damage than required or desirable. For carrying out a limited retaliatory blow in response to use of a crude nuclear device of, say, 20 kt. yield, a capability for more discriminate and selective strikes could be desirable. Similarly, the availability of such a more discriminate--and perhaps even non-nuclear--warhead package in which collateral damage would be minimized also might be a critical requirement for the mission of neutralizing a new proliferator's nuclear assets. Here, too, the readiness of the National Command Authority to act probably would be affected by the availability of a more discriminate response than that provided by the off-the-shelf obsolete ICBMs such as Titan II and Minuteman II and III.

Dedicating a fraction of the SSBN force to these two anti-new proliferator missions would resolve the problem confronting existing land-based ICBMs in meeting the range-to-target requirement. But with growing dedication within the SIOP of some of that force to missions involving a European theatre conflict, earmarking even a further small fraction to this mission could be undesirable. Besides, the warhead packages existing and planned for SLBMs also appear likely to do excessive damage or otherwise to lack the needed target discrimination capability for attacks on a few closely situated targets such as nuclear weapon storage bunkers or airfields. This includes both the Polaris A3 MRVed warhead package and the Poseidon C3 and Trident MIRVed packages.

There also would be various defects in planning on reliance on some "as is" mixture of manned strategic bombers with cruise missiles or SRAMs or theatre nuclear forces such as carrier based aircraft or SLCMs. Manned strategic bombers refueled in the air would be capable of meeting the requirement of extended range. And by the late 1980s the availability of advanced tankers with longer range than the current KC-135s would permit staging the tankers as well as the planes from CONUS. This could be especially important because of the not unlikely reluctance of allied countries, discussed above, to permit the United States to use their bases to mount such nuclear strikes against new proliferators. Much more problematic for some missions, however, would be the extended time to target of these aerodynamic systems since it could provide sufficient warning to permit even a lesser nuclear power to relocate its nuclear force and counter a U.S. disarming strike.

Of course, time urgency would be somewhat less of a consideration in using manned long-range bombers for carrying out a retaliatory strike. But with the continuing spread of advanced conventional weapons, air defenses could come to pose a potential problem for reliance on manned aircraft especially because U.S. political calculations might place a premium on avoiding any aircraft losses. Although this threat could be minimized by use of stand-off missiles or cruise missiles, the currently available warhead yields of SRAMs and ALCMs (and presumably SLCMs)-- upwards of 200 kt.⁶--could be too high.

⁶Gray, "The Future of Land-Based Missile Forces," p. 36.

Therefore, to meet the range, promptness to target, discrimination in targeting with constrained collateral damage, and flexibility requirements of these missions against hostile new proliferators while avoiding possible losses to local air defenses, some limited restructuring of U.S. strategic offensive forces may be necessary. For example, a limited number of Titan IIs or Minuteman IIIs could be modified eventually to augment their range by off-loading payload, to accept suitable warhead packages, and to increase their accuracy with advanced guidance and post-boost control systems. Or, in those cases in which promptness to target would not be a major requirement, reliance might be placed on air or sea-launched cruise missiles with appropriate warhead packages--assuming prior intelligence gathering to acquire the necessary terrain mapping data.

As part of this limited restructuring of U.S. strategic offensive forces, consideration even might be given to acquisition of extremely accurate non-nuclear warheads for preventively neutralizing a new proliferator's nuclear assets or retaliating for their limited use against U.S. intervention forces assisting a beleaguered non-nuclear ally. Having such a capability could enhance the readiness to carry out a disarming strike on indications that the use of a nuclear weapon by the hostile proliferator was imminent.

Similarly, the credibility of the threat to inflict heavy punitive damage without recourse to nuclear weapons in response to a nuclear attack on U.S. general purpose forces within the theatre of conflict would be very high if that non-nuclear capability were acquired. Particularly if by suitable tactical innovation U.S. planning had reduced the impact of any local use of a nuclear weapon against its intervention forces,

global and domestic political pressures on the United States not to retaliate in kind with a nuclear weapon could be high. The not unreasonable anticipation of that political pressure could reduce the credibility of the U.S. threat of retaliation. Perhaps of equal importance, a sufficiently forceful non-nuclear retaliatory response could limit the damage done to the nuclear taboo to that already inflicted by the new proliferator's use of nuclear weapons.

2. Nuclear Attack or the Threat of Nuclear Attack on CONUS

In a more proliferated world both other countries and sub-national groups might seek to acquire such a capability to attack or threaten nuclear attack on CONUS. To some countries, for instance, such a capability might be thought useful to buttress more ambitious and expansionist regional policies. Not only could the ability to put U.S. cities at risk weaken U.S. allies' or friends' perceptions of the likelihood of U.S. support in a crisis but by providing a limited counter-deterrent threat it could prevent U.S. retaliation even for the actual use of nuclear weapons in a conflict with a U.S. ally. Such a capability equally could be thought useful by a new proliferator for coercing the United States to follow a particular course of action. For example, a radical government could threaten anonymously--thereby hoping to avoid a counter-threat of devastating retaliation--to detonate a nuclear weapon in the United States to compel termination of U.S. involvement in a particular local conflict, U.S. assistance to a hostile neighbor, and so on.

Or, some radical sub-national groups may come into possession of one or more nuclear weapons, most probably by theft from a new proliferator.⁷ They, too, might seek to threaten a U.S. city, whether simply as a means of extorting money or to compel a change of U.S. foreign policy. Nor could actual detonation of a terrorist nuclear weapon be precluded. If pressed to desperation by the authorities and no longer concerned about preserving a claim to represent a legitimate and credible future alternative government, a radical fringe group might see such use as its final means of striking out against its opponents and the policies they supported.

In the initial stages of more widespread proliferation these threats of nuclear attack on CONUS are likely to entail reliance on primitive or even highly unconventional modes of delivery. For until the 1990s most countries that might seek such a capability are likely to lack either sophisticated military aircraft with sufficient range to reach CONUS or long range missiles. Consequently they would have to rely on such expedients as short range missiles on disguised surface ships, reconfigured civilian aircraft utilizing deception to penetrate U.S. airspace, or the smuggling of the weapon into the United States across lightly patrolled borders. Similarly, sub-national groups almost by definition are unlikely to have access to more sophisticated military technology and may be forced to rely on clandestine insertion for delivering a nuclear weapon.

Of course, threatening to attack CONUS, much less carrying out such an attack, clearly would be fraught with risk for either a new proliferator

⁷For elaboration see Lewis A. Dunn et al., Routes to Nuclear Weapons: Aspects of Purchase or Theft (Hudson Institute, HI-2538/2-RR, April 1977). Report prepared for the Office of Technology Assessment, United States Congress.

or a sub-national group. Those risks would run from probable U.S. political and conventional military or even nuclear retaliation for an actual attack to the loss of control over any nuclear weapon smuggled into the United States with the possibility of that weapon ending up as a useful bargaining lever in a future domestic political upheaval within the new proliferator.

In light of these risks--as well as the difficulty of writing highly plausible scenarios for such a nuclear attack on CONUS--the probability of this threat admittedly must be viewed as low. Nonetheless, given the magnitude of its possible consequences, planning for reducing the threat to CONUS potentially posable by a hostile new proliferator or a radical sub-national group within a more proliferated world may become necessary.

Among the measures that could be part of a U.S. response are:

- improved and more timely intelligence about these possible threats to CONUS;
- assistance to new proliferators in improving their total physical security system for protection of nuclear weapons, reducing the threat of a nuclear theft by a hostile sub-national group;
- enhanced border, coastal, and global surveillance and tracking to hinder clandestine insertion and monitor any movement abroad of lesser powers' nuclear assets;
- augmentation of existing but reduced and fragmented U.S. air defense capabilities as well as inclusion of this kind of threat among standard air defense planning and training scenarios;
- deployment of a light area ballistic missile defense system perhaps capable of precluding damage from the low-order threats from those few new proliferators able to mount some form of missile threat to CONUS during the next two decades;
- planning for and implementing civil defense procedures and practices to include the limited evacuation of individual cities or even only parts of a city; and
- limited restructuring of U.S. strategic offensive forces--ranging from acquisition of warhead packages suitable for possibly limited retaliatory strikes to increasing the range of ICBMs--to ensure their readiness and capability to carry out a retaliatory strike after a nuclear attack on CONUS by a new proliferator.

a. Improved and More
Timely Intelligence

Adequate and timely intelligence could be especially important in reducing or deterring these less probable but serious nuclear threats to CONUS by new proliferators or sub-national groups. Prior intelligence warning of a possible attempt to smuggle a nuclear weapon into the United States would permit concentration of border patrol, air defense, and other U.S. assets to prevent such clandestine penetration. Moreover, in a world of fifteen to twenty nuclear weapon states either a new proliferator or a sub-national group might think it possible to threaten the United States anonymously, hiding its identity even while making its demands known. U.S. intelligence capabilities would help to deter such an anonymous threat or even attack by posing a risk of eventual detection. Further, post hoc detection would be important in any case for an eventual U.S. punitive response to set an example of the perpetrator of a nuclear attack or up until then successful nuclear blackmail as a means of deterring others from imitating it.

b. Assistance to New Proliferators
in Improving Security for
Protection of Nuclear Weapons

As already noted, one means by which a sub-national terrorist group could acquire a nuclear weapon with which to threaten or even attack an American city would be by theft. It is to be hoped, of course, that new proliferators would take adequate measures to ensure the security and control of their nuclear arsenals. However, to the extent that questions arise about the security of these countries' nuclear weapons, it could

be desirable for the United States to assist them in improving that security and control.

Especially important might be the transfer of U.S. knowledge about the design, implementation, and operation of a total physical security system for protection of nuclear weapons. As distinct from the actual transfer of advanced technology control mechanisms such as PAL, this approach would entail bilateral discussions about and training in:

- personnel identification procedures;
- fencing and lighting;
- badges;
- guard and patrol techniques;
- personnel selection and reliability programs;
- the two-man rule; and
- requirements for back-up forces and communication with those forces.

Though about mundane matters, the transfer of such knowledge could have a significant payoff in terms of increased physical security. For in each of these areas the United States has developed considerable expertise which a new proliferator could acquire for itself only over a number of years and with considerable investment of resources. Thus, one focus particularly deserving emphasis in such talks might be the pitfalls and surprises encountered in the U.S. experience and how they eventually were overcome.

Going a bit further, for selected countries assistance in tightening security and control of nuclear weapons could include the actual transfer of early generation PAL systems. However, even though access to those systems would not be particularly revealing of current U.S. control mechanisms--a cost to be avoided on account of that information's sensitivity--

transfer of advanced technology systems probably would provide some information about more efficient nuclear weapon designs. To that extent, it could be thought better to restrict U.S. assistance to the level of physical security concepts. In any case, because of the degree of involvement in the proliferator's nuclear affairs the provision of actual technical assistance in designing PAL packages for warheads would presuppose as well as because of what the United States might learn about that country's nuclear weapons, such advanced technology transfer might prove unacceptable to new proliferators themselves.

c. Enhanced Border, Coastal, and
Global Surveillance and Monitoring

To reduce the likelihood of a new proliferator or sub-national group smuggling a nuclear weapon into CONUS it may be necessary to consider augmenting U.S. capabilities for monitoring air and sea traffic in and out of the United States. There might even be justification for some contingency planning for reducing that traffic by partial bans--geographic or for limited periods of time--on "non-essential" activities such as private flying or pleasure boating. Such a partial ban after intelligence warning of an attempted penetration could permit, for example, the more efficient use of systems such as AWACs for selected monitoring of incoming air traffic in particular U.S. regions.

In addition, a capability for satellite monitoring and computer tracking of possible shipborne nuclear threats from the time of their leaving a possibly distant new proliferator could be usefully acquired. Of particular importance would be access to sufficient data processing

and timely retrieval capabilities to permit such a system to fulfill its mission. Such surveillance systems would help to extend outward the U.S. defense barrier against these unconventional nuclear threats to CONUS.

d. Augmented Air Defense Capabilities

Since the 1960s there has occurred a continuing reduction and fragmentation of U.S. air defense capabilities. At present, moreover, the role and defense contribution of NORAD is under reassessment. But, to repeat, for some time the most likely nuclear threats by a new proliferator to CONUS would entail reliance in some form on aircraft for delivery. Consequently, maintenance if not augmentation of existing but greatly reduced and fragmented U.S. air defense assets appears desirable.

Moreover, particularly in response to the threat of efforts to smuggle a nuclear weapon into the United States by blending in with regular commercial and private air traffic, R&D might be pursued to develop means whereby all friendly and regularly scheduled commercial and private aircraft could be identified at all times. Preparations to make use of civilian air traffic monitoring capabilities on timely intelligence warning of an attempt to penetrate U.S. airspace, say by a sub-national group using a disguised private jet, also could be considered. In turn, planning to net together currently fragmented U.S. interception assets on an ad hoc basis could provide a surge response force for use in intercepting foes so identified.

Further, inclusion of this kind of limited threat in air defense planning and training scenarios also could be desirable. As elsewhere,

prior thinking about the contours of the particular problem and training to meet it could improve a later U.S. response.

e. Light Area BMD

By the late 1990s some lesser new nuclear powers could acquire longer-range ballistic missile technology capable of hitting targets within CONUS. Advanced developing countries such as Brazil and India, for example, already are engaged in space rocket research and other countries are likely to follow suit as they become more technologically and industrially developed. Moreover, if space booster technology becomes a legitimate item of international commerce, even more new proliferators might acquire a long-range threat against CONUS. And, to repeat, even before this stage of proliferation occurs some hostile countries may have mounted jerry-built missile threats to CONUS in the form of short and medium-range ballistic missiles on surface ships.

Confronted by this potential threat to CONUS, pressures might emerge to renegotiate the 1972 ABM Treaty with the Soviets in order to permit deployment of a light area ballistic missile defense system. The merely prudential security case for that deployment would be buttressed if any one of several other not implausible factors were operative:

- evidence that the leadership of the hostile new proliferator was less than fully rational;
- questions about the reliability of that new proliferator's safety and command and control arrangements, raising the risk that even where the leaders were men of caution and prudence, a nuclear accident could occur;
- enunciation by the leaders of the hostile new proliferator of a nuclear doctrine stressing the use of nuclear weapons; and
- as discussed fully next, the need to reassure U.S. allies that were themselves threatened by the new proliferator

that the U.S. would not be deterred from coming to their aid by this limited but serious nuclear threat to CONUS.

Given the limits of the threat posed by any such lesser nuclear power as well as advances in BMD technology, a light area BMD system could be capable of precluding damage to CONUS from that attack. However, it still could be sufficiently porous to a larger attack so as not to threaten mutual deterrence with the Soviets. But, to repeat, because of the ABM Treaty such deployment would require coordinated action with the Soviets who, for their own reasons, in any case probably also would want that capability to preclude damage from lesser new proliferators.

f. Civil Defense Procedures for
Limited City Evacuation

The level of threat to one or more U.S. cities posed by a sub-national group or even by a new proliferator that had smuggled a nuclear weapon into the United States probably would be at least an order of magnitude less than that assumed in formulating and evaluating civil defense procedures and practices for reducing damage from a Soviet strike. Rather than thinking in terms of a Soviet attack with hundreds of megaton-yield warheads targeted on all major U.S. cities, for this potential threat emerging from a more proliferated world it may be more accurate to plan in terms of a small number of 20-100 kiloton warheads each threatening a U.S. city if not even even only a part of that city.

Given this more limited threat, provision for evacuating all or part of U.S. target cities on intelligence warning appears both feasible and useful. In particular, a capability for rapid city evacuation could both affect U.S. readiness to resist a sub-national group's or new proliferator's

demands and reduce casualties should the nuclear weapon be detonated. Moreover, even though this limited nuclear threat may not emerge for some years, in designing present civil defense procedures and practices for it it would be important to allow for carrying out only a portion of any such plan.

g. Limited Restructuring of U.S.
Strategic Offensive Forces

Planning for retaliation to a nuclear attack on CONUS by a new proliferator or an attempt at nuclear blackmail could require a limited restructuring of U.S. strategic offensive forces to provide them with more suitable warhead packages and, in the case of ICBMs, with greater range. For global political reasons the National Command Authority could seek to respond in a proportionate manner to any such attack by a new proliferator. That is, it might be thought inappropriate--if not a bad precedent to set--to respond to a bomb of 20 kt. or less with one of several hundred kilotons, let alone megatons. Domestic political outcries against "needless" punishment of innocent civilians also might be heard. But, as elaborated earlier, existing systems lack the sufficiently low-yield and discriminating warhead packages for such a proportional level of response.

In turn, as also examined more fully above, were a decision made to plan for reliance on ICBMs to carry out this retaliatory mission, it could require their modification to provide them with sufficient range to reach distant targets within likely hostile new proliferators. And both the apparent surgical characteristic of a retaliatory missile bolt from the blue and the risks of adverse political repercussions were some

manned aircraft shot down might incline the National Command Authority toward such use of ICBMs.

3. Nuclear Attack or Threat of Attack on a U.S. Ally or Friend

Situations requiring a U.S. response to the threat of nuclear attack--or even to an attack itself--against an as yet non-nuclear ally or friend by a new proliferator also could readily arise within a more proliferated world. For example, in a nuclearized Persian Gulf-Middle East of the late 1980s or early 1990s Saudi Arabia might find itself so confronted by a more radical neighbor possessing a crude nuclear force. Among possible U.S. responses to these low-order threats would be:

- unilateral or multilateral pledges of support in the event of such a threat or attack;
- rapid overseas deployment of advanced air defense equipment or even complete units to limit damage from low-order threats;
- overseas deployment of light area defense against limited ballistic missile threats;
- provision for carrying out a surrogate retaliatory strike on behalf of the attacked non-nuclear ally, whether by a Program of Cooperation (POC) or earmarking U.S. forces; and
- planning for assistance in post-nuclear attack recovery.

a. Unilateral or Multilateral Pledges of Support

A minimal U.S. response to the threat by a new proliferator of a nuclear attack on a U.S. ally or friend would be a Presidential pledge of support, leaving undefined what that support would entail. There would not be any detailed planning of responses nor any earmarking of specific units or forces to provide whatever "support" eventually was decided on for that

country threatened by a new proliferator. As in the case of President Johnson's pledge after China's first nuclear test in 1964 that "the nations that do not seek national nuclear weapons can be sure that, if they need our strong support against some threat of nuclear blackmail, then they will have it,"⁸ this response would be limited to one of declaratory policy.

Taken a step further, U.S. policy could pursue agreement either between the Soviets and the United States or within the London Nuclear Suppliers Club on a multilateral pledge of support. In the case of a joint U.S.-Soviet pledge, it would reiterate their earlier Declarations in 1968 to the United Nations Security Council affirming their intention "to seek immediate Security Council action to provide assistance, in accordance with the Charter."⁹ However, in the absence of a more precise statement of the obligations so assumed, if not also an actual earmarking of forces to fulfill that pledge, future pledges are likely to be as incredible as were those original declarations. Thus, particularly in situations where an important ally or friend, e.g., Saudi Arabia, confronted a nuclear threat from a new proliferator, more far-reaching responses could be demanded to protect that ally or friend and U.S. security interests.

⁸President Lyndon B. Johnson, 18 October 1964, reprinted in U.S. Arms Control and Disarmament Agency, Documents on Disarmament, 1964 (Washington, D.C.: Government Printing Office, 1965), p. 468.

⁹"United States Declaration on Security Assurances to Non-Nuclear Nations," 17 June 1968, reprinted in U.S. Arms Control and Disarmament Agency, Documents on Disarmament, 1968 (Washington, D.C.: Government Printing Office, 1969), pp. 439-440.

b. Providing Air and Missile
Defense Capabilities

To counter the threat posed by hostile new proliferators to important non-nuclear allies or friends the United States might provide the latter with augmented conventional air and, as appropriate, missile defense capabilities. Given the likely more limited nuclear forces of most such new proliferators--perhaps a few dozen warheads or less to be delivered by aircraft or short range surface-to-surface missiles--a significant reduction in the level of damage that would be expected should be achievable.

In some threatened countries local air defense assets already may exist. These could range from, for example, HAWK battalions for point defense of high-value targets to advanced interceptors such as the F-15. Consequently, one desirable option might be to plan for strengthening these existing capabilities by rapid deployment of air defense equipment. Or, in time of acute crisis, for some countries whose security would be extremely important to U.S. interests, actual U.S. air defense units, e.g., interceptors and airborne warning and control systems, might be deployed. It would be important to plan in advance how to integrate and coordinate local air defense assets with those U.S. forces in order to facilitate such deployment and ensure the efficient use of U.S. units. Thus means of establishing a unified air defense command under U.S. direction also might be part of such prior planning.

For defense against a new proliferator's relatively unsophisticated and limited missile threat, overseas deployment of light area BMD, if technically feasible, might be an appropriate response. Once again, because of the limited size and sophistication of the hostile nuclear

force, a considerable damage limiting capability might be within the reach of advancing missile defense technology. And while it probably is premature to focus any R&D explicitly on such a rapidly overseas deployable BMD capability, it might be useful to factor into the continuing evaluation of light area defense concepts and technologies some consideration of how well and at what cost they also might perform this more limited mission of protecting from local nuclear attack key assets within highly valued friends or allies. Similarly, possible upgrading of advanced field and fleet air defense systems to provide them with a capability against small and rudimentary ballistic or cruise missile threats might be assessed.

c. Provision for Surrogate Nuclear
Retaliation on Behalf of
Non-Nuclear Allies or Friends

An even more far-reaching U.S. response designed to deter any such nuclear attack on a non-nuclear friend or ally would be to make provision for carrying out a surrogate retaliatory strike on behalf of that ally or friend. Going beyond a pledge of support, or even the transfer of air and missile defense, possible mechanisms for providing a surrogate nuclear retaliatory strike could include, for example:

- negotiation and implementation of Programs of Cooperation (POCs) with selected non-nuclear allies much as POCs now exist with U.S. NATO allies;
- earmarking of elements of U.S. strategic offensive forces for carrying out this mission; and
- planning and training for reliance on naval carrier aircraft for executing such a surrogate retaliatory blow.

If a decision were made to provide selected countries with a pledge of surrogate retaliation and to rely on U.S. strategic offensive forces,

for reasons already discussed, a limited restructuring of those forces could be required. In particular, because there could be a high value on retaliating in a manner proportional to the initial strike, acquisition of more discriminating, lower-yield warhead packages could be needed. A capability for selecting among any one of several sub-100 kt. yield warheads might even be desirable.¹⁰

At present, it may appear unlikely that the United States would commit itself to such surrogate retaliation even for critically important allies or friends. But many currently widespread calculations and notions about Congressional and public attitudes, acceptable risks, excessive entanglements, preferred solutions, and the price to be paid for protecting U.S. security interests are likely to be subject to change in a more proliferated world. Particularly if more widespread proliferation entails the use of nuclear weapons by new proliferators, the shock of their first use since Hiroshima and Nagasaki may lead to some new and fundamentally different policies being seriously considered for adoption. And among them could be provision for surrogate retaliation to prevent local nuclear conflicts involving key U.S. allies or friends.

d. Rapid Assistance in Post-Nuclear Attack Recovery

In the event of a failure of U.S. efforts to deter use of one or more nuclear weapons against a U.S. ally or friend by a new proliferator, the

¹⁰ Richard L. Garwin, "Reducing Dependence on Nuclear Weapons: A Second Nuclear Regime," in Nuclear Weapons and World Politics, David G. Gompert et al. (New York: McGraw-Hill Book Company, 1977), pp. 130-132.

U.S. probably would provide assistance to that country in recovering from attack. Short-term assistance could include, for example:

- airlifting of medical supplies appropriate to the nuclear battlefield;
- provision of personnel trained in dealing with nuclear-related injuries;
- provision of emergency food and shelter;
- help in emergency decontamination; and
- depending on the severity of the attack, provision of emergency communication systems.

Providing each of these types of assistance as well as others could require, in turn, some stockpiling of different sorts of relief supplies, new contingency planning, and preparations for ad hoc integration of domestic U.S. civil defense assets with these international relief efforts.

4. Impact on U.S.-Soviet Relations

More widespread proliferation also is likely in many ways to affect U.S.-Soviet relations. It readily could create requirements for:

- joint superpower steps to reduce the risk of a U.S.-Soviet confrontation arising from a conflict in a newly nuclearized region;
- unilateral U.S. efforts to buttress its crisis bargaining position to help ensure a more favorable outcome in the event of a proliferation-induced superpower crisis; and
- joint U.S.-Soviet measures to manage any repercussions for the central strategic balance of more widespread proliferation.

a. Steps to Reduce the Risk of Superpower Confrontation

Within a more proliferated world the likelihood of a superpower confrontation readily could increase. Contributing to that increased risk would be:

- continued superpower ties with newly nuclear allies or friends over whom U.S. and Soviet influence might have decreased even further on account of those countries' access to nuclear weapons;
- a possibly greater capacity of lesser allies or friends to set in motion chains of events that, by leaving the superpowers with only the choice of reluctant further entanglement or the sacrifice of past investments, might lead to their unexpected confrontation;
- the rapid tempo of events particularly in situations where vulnerable new nuclear forces could create pressures for sudden escalation to the early use of nuclear weapons by new proliferators; and
- the emergence of many new flashpoints within conflict-prone regions for superpower confrontation such as a misinterpretable accidental nuclear detonation, the use of nuclear weapons against one superpower's ally by the ally of the other, or the use of those weapons by one superpower's own ally.

Against these factors increasing the risk of a U.S.-Soviet proliferation-triggered confrontation is the fact that the two superpowers have cooperated within the London Nuclear Suppliers Club and elsewhere to reduce the likelihood of runaway proliferation. Building on those cooperative non-proliferation efforts--as well as on the 1971 "Accident Measures" Agreement to reduce the risk of nuclear war--a U.S.-Soviet proliferation dialogue to check this increased risk of confrontation could encompass agreement on both:

- measures to strengthen barriers to U.S.-Soviet conflict should a local nuclear confrontation or conflict erupt among new proliferators and
- joint U.S.-Soviet initiatives to reduce the risk of an accidental or unintended nuclear conflict among new proliferators.

First, strengthening the barriers to U.S.-Soviet confrontation in a more proliferated world could entail their agreement on diplomatic measures that would be pursued, either bilaterally or through multilateral initiatives, in the event of a nuclear crisis or even conflict among new

proliferators. In addition to expected action such as hot line exchanges of views and information, possible steps would range from calling an emergency meeting of the U.N. Security Council to joint U.S.-Soviet efforts to resolve the crisis and to deter any use of nuclear weapons, perhaps by the threat of joint superpower surrogate retaliation. Of particular importance might be attempted agreement by the two superpowers on the limits that each might accept on pursuit of its competitive interests during such a crisis or conflict. For example, while the de facto norms or rules of engagement, so to speak, in the 1973 Middle East War legitimated active U.S. and Soviet resupply of their allies, it could be agreed that in a potential local nuclear conflict once a nuclear weapon had been used by a new proliferator the two superpowers would stand aside and "let the locals slug it out."

Again to raise the barriers to superpower confrontation, agreement also might be sought on responses that the two sides would not take for a specified time period (one hour, one day . . .) after the detonation of a nuclear weapon in a newly nuclearized region. Much as the two sides already have tacitly agreed that a single detonation of a nuclear weapon within either of their countries should not lead to a precipitous response, e.g., "instant" retaliation, they might agree to avoid in these probable situations of a more proliferated world such responses as:

- possibly provocative promises of support for the attacked party;
- going on alert status;
- deploying forces toward the region in a show of force;
- immediate threats of retaliation against the apparent first user; and
- demands that the other superpower take action against an ally or friend that had so used a nuclear weapon.

By not immediately taking these and other steps, the superpowers would seek to slow the tempo of events and avoid hasty responses from which they might later be able to extract themselves only with difficulty and lost prestige. And that would help to prevent an escalation of the perceived stakes which could transform a local isolatable conflict into a symbol of the broader superpower balance of power and prestige.

Second, joint U.S.-Soviet measures to reduce the risk of an accidental nuclear exchange among new proliferators also might be usefully pursued. Assistance might be provided new proliferators in acquiring accident-proofed nuclear weapons with adequate physical security and control systems. Taken a step further, such efforts might encompass helping new proliferators to design and develop more stable, less vulnerable nuclear forces, forces that therefore would be less likely to be lightning rods for conflict. However, because providing such extensive joint assistance beyond simply efforts to reduce the risk of nuclear weapon accidents is likely to clash with other U.S. or Soviet foreign and security objectives, agreement on it by the superpowers probably would not be feasible.

b. Strengthening the U.S.
Crisis Bargaining Position

Within a more proliferated world, for reasons already discussed, the danger of a U.S.-Soviet intense crisis could increase significantly. Consequently, U.S. military planning also needs to attend unilaterally to those military capabilities most likely to increase the likelihood of crisis outcomes favorable to the United States in the event of a failure of deterrence. However, there is considerable controversy about just what

capabilities are most likely to be useful to meet this crisis bargaining mission.

Both military and political determinants of favorable crisis outcomes are discernible. For example, each of the following factors is thought by some--if not many--analysts to have contributed to Khrushchev's decision to withdraw Soviet missiles and the favorable outcome of the 1962 Cuban Missile Crisis:

- a strategic balance favoring the United States and providing the United States with escalation dominance, i.e., a credible, or at least not incredible, U.S. threat to escalate to a higher level of confrontation or conflict;
- the local superiority of U.S. conventional naval, air, and land forces;
- a balance of interest favoring the United States, i.e., much more was at stake in Cuba, and clearly so, for the United States than for the Soviets; and
- Khrushchev's constrained risk-taking propensity and the careful attempt on President Kennedy's part to provide Khrushchev with a way out, to avoid backing him into a corner where a mixture of emotion and personal and national pride might have provoked an unwillingness to yield.¹¹

Space precludes any attempt to present the arguments for all the contending positions, much less to resolve their disagreement. However, in light of the possibility that past adverse shifts of the U.S.-Soviet strategic balance still would be evident in a more proliferated world, the broad lines of argument linking the state of that strategic balance to crisis outcomes, including proliferation-induced crises, warrant brief mention.

¹¹ Arnold L. Horelick, "The Cuban Missile Crisis: An Analysis of Soviet Calculations and Behavior," World Politics, Vol. XVI (April 1964); Albert and Roberta Wohlstetter, Controlling the Risks in Cuba, Adelphi Paper No. 17 (London: International Institute for Strategic Studies, 1965); Elie Able, The Missile Crisis (New York: J. B. Lippincott, 1966); Robert E. Osgood and Robert W. Tucker, Force, Order, and Justice (Baltimore: The Johns Hopkins Press, 1967), pp. 150-157.

Since the early 1960s, as detailed below, there has occurred a continued augmentation of Soviet strategic forces. The immediate prospect, to quote Secretary of Defense Brown, is that

the Soviets will have at least the hypothetical capability, in the early to mid-1980s, to destroy a large percentage of our ICBM silos, non-alert bombers, and SSBNs that might be in port; they may also be able to give as much as 10 to 20 percent of their population at least some kind of temporary protection against our retaliation.¹²

Such a marked drawdown of U.S. strategic forces from a Soviet strike, moreover, would greatly constrain the options available to the National Command Authority, possibly even resulting in the United States having to choose between shifting to countervalue strikes where the remaining Soviet force would do far greater damage in return or accommodation.

Increasing Soviet strategic advantage could affect crisis outcomes in two ways. First, the favorable strategic balance--other determinants being equal--could encourage the Soviets in a proliferation-induced crisis, or in any other crisis, to hold out for a better outcome. This is not to suggest recklessness on their part--the heightened danger of nuclear war still should engender considerable prudence on the part of Soviet leaders. But there could be an increased inclination to believe that their greater military options as well as U.S. perceptions of that disparity meant that the United States should and eventually would give way.

Second, confronting a perceived adverse strategic balance, one in which escalation dominance had come to rest with the Soviets, the United

¹²"Report of the Secretary of Defense Harold Brown to the Congress on the FY 1980 Budget, FY 1981 Authorization Request and FY 1980-1984 Defense Programs," 25 January 1979, p. 80.

States probably would tend to act even more circumspectly in proliferation-related and other crises. The adverse strategic balance could strengthen pressures for U.S. accommodation, lessen incentives for military resistance or involvement that could escalate, and reinforce any other factors, e.g., the balance of interest, that might point the United States toward giving way to resolve the crisis. Underlying those consequences would be a recognition that improved political outcomes through recourse to force were unavailable.

Planning for crisis management within a more proliferated world provides yet another reason, therefore, for reversing present adverse strategic force trends and avoiding Soviet escalation dominance. Moreover, taking steps in that direction is all the more important because of the greater likelihood of U.S.-Soviet crises within a more proliferated world.

c. Repercussions for the
Central Strategic Balance

With two exceptions, there appear to be only limited implications of nuclear weapon proliferation in the next decades for management of the central U.S.-Soviet strategic balance. These exceptions are:

- a sooner-than-sometimes-anticipated acquisition by hostile lesser nuclear powers of a capability to threaten CONUS or the Soviet homeland with ballistic missiles and
- the even more important--if for now highly unlikely--scenario of West German and Japanese acquisition of nuclear weapons.

Particularly the latter could have major strategic repercussions, including a renegotiation of the SALT-set strategic force limits.

First, although the emergence of lesser nuclear powers is likely to result in some Soviet and U.S. adjustments of their respective strategic force postures to meet new threats or carry out new missions, those adjustments, with an exception to be noted next, would be minor and could be made unilaterally. For example, either superpower's acquisition of a capability to neutralize a new proliferator's nuclear force comprising, say, a few dozens of warheads to be delivered locally with tactical aircraft is unlikely to entail such sufficiently far-reaching posture changes that they would have to be coordinated with the other superpower. Similarly, a U.S. or Soviet decision to augment air defenses against any attempted attack by such a lesser power new proliferator would not require their coordination and consultation.

By contrast, in response to the emergence of hostile new proliferators capable of threatening CONUS with nuclear-armed ballistic missiles, reassessment of the existing limits on light area BMD could be required. Not only would advanced technology BMD systems essentially preclude damage from the low-order threats likely to be confronted but light BMD would provide insurance against various non-deterrable threats from new proliferators. The latter could encompass the not unforeseeable circumstances of the coming to power of "irrational" leaders articulating a nuclear doctrine stressing the easy use of nuclear weapons as well as loss of control by an established government over its nuclear force in politically unstable new proliferators. And if the United States had provided a guarantee of surrogate retaliation to an ally or friend threatened by a new proliferator,

light area BMD would serve to reinforce that guarantee's credibility and greatly reduce the possibility of the United States being deterred by the new proliferator from carrying out a retaliatory strike.

Further, regardless of U.S. initiatives, the Soviets well may respond to the perceived threat of these lesser nuclear powers by seeking to reopen the BMD issue and change the limits within the ABM Treaty. In that case the indirect repercussions of that Soviet decision might be great pressures for a U.S. program to match that Soviet one.

Second, it is possible to identify factors that might lead Japan or West Germany in the late 1980s or early 1990s to reassess their current nuclear abstinence. The resultant strategic nuclear weapon programs in all probability would be serious efforts, whether entailing the build-up of SSBNs, ICBMs, and IRBMs or cruise missiles. Their emergence well could have far-reaching implications for the central strategic balance, including:

- heightened Soviet incentives to renegotiate--or, barring that, to abrogate--the 1972 ABM Treaty, leading possibly to mutual U.S.-Soviet deployment of light area BMD;
- augmentation of Soviet strategic offensive forces and the renegotiation of SALT-set force levels; and
- augmentation of U.S. strategic offensive force levels.

If the emergence of lesser nuclear powers had not yet done so, West German and Japanese acquisition of nuclear weapons could create strong incentives for the Soviet Union to call for renegotiation of the 1972 ABM Treaty to permit augmented area missile defenses. In part, Soviet thinking is likely to be driven by its traditional fear of encirclement, now by hostile nuclear powers, a fear already exacerbated by the prior emergence of lesser nuclear powers. As well, with its emphasis on war-fighting, Soviet strategic doctrine could create an incentive for BMD as a means of

reducing the threat posed by what now might appear a possible coalition of hostile anti-Soviet nuclear weapon states. And, if the political milieu in which Japan and West Germany have emerged as nuclear weapon states is characterized by political tensions and disputes between them and the Soviets--as could be the case--Soviet incentives to reduce the threat posed by their nuclear forces could be enhanced.

In response to Soviet calls for renegotiation of the 1972 ABM Treaty--and their implicit threat of abrogation of that Treaty--mutual U.S.-Soviet deployment of light area BMD is likely to be preferable to U.S. acquiescence in a unilateral upgrading of the Soviet BMD capability. Negotiated deployment could permit greater U.S. influence over the magnitude and characteristics of Soviet efforts and help check the possible destabilizing consequences for the central strategic balance.

Besides the preceding indirect U.S. incentives for deployment of light area BMD, more direct incentives stemming from West German and Japanese nuclear weapon programs cannot be precluded--if, to repeat, light area BMD had not already been deployed in response to lesser new proliferators. Though far from probable, scenarios can be outlined in which either of these countries might come to represent threats to the United States as well as to the Soviets. If the international environment so comes to resemble that of the 1930s--economic struggles, the breakdown of earlier arms control schemes, and political unrest, for example--U.S. incentives for protection against these two proto-superpowers could increase.

Soviet incentives for increasing their strategic offensive forces also are likely to grow if Japan and West Germany acquire nuclear weapons.

To the extent that the Soviets did not rely on the acquisition of additional IRBMs to carry out any new missions against those two new proliferators, SALT-set limits could have to be set aside, especially if force reductions had by that time been agreed on. And though geography probably would permit reliance on IRBMs, other political and military considerations could lead to Soviet purchase of additional ICBMs or SSBNs. In particular, regardless of geography, acquisition of additional ICBMs or SSBNs might be motivated by a Soviet interest in matching for political bargaining and warfighting reasons Japanese and West German ICBM or SSBN development as part of a claim to strategic equality with "the West overall." And supporting the probability of this Soviet response is the fact that among the "unilateral statements" appended to the SALT I Interim Agreement was just such a Soviet claim--which the United States rejected--to increase correspondingly the number of the SSBNs beyond those operational or under construction when the agreement was concluded if the NATO allies augmented their SSBN forces.

Pressures within the United States to respond to Soviet actions by augmenting U.S. strategic offensive forces are likely to grow in turn. Such action might be thought necessary to maintain a relative international bargaining position with the Soviet Union. Under some conditions the United States itself even might move first to reopen the SALT-set limits on strategic offensive forces. Although both West Germany and Japan are now allied with the United States, a scenario for one or both of these countries' acquisition of nuclear weapons, as already noted, could entail global political, economic, and military changes which would make probable extreme tensions between these allies and the United States.

Whatever the particular scenario, joint U.S.-Soviet action to coordinate their responses to West German or Japanese acquisition of nuclear weapons appears likely to be required. Otherwise it might not be possible to hold in check adverse repercussions for the central strategic balance.

5. U.S. Relations with a Newly Nuclear Ally

Thinking through in advance possible responses to the acquisition of nuclear weapons by allies or close friends of the United States could help to manage the repercussions for U.S. security interests in the event that one or more of those countries actually did choose to "go nuclear." Brief examination of two conflicting responses serves to illustrate the range of issues warranting more detailed assessment. They are:

- severing any residual ties and avoiding further involvement with the newly nuclear ally and
- attempting to accommodate such an ally's acquisition of nuclear weapons while integrating its independent control of those weapons into a broader and modified alliance structure.

To check the likely erosion of disincentives to acquisition of nuclear weapons a strong negative U.S. response to the decision of even an ally to acquire nuclear weapons would be required. Failure to respond in such a manner, perhaps severing residual security ties, reassessing trade and financial relations, and withdrawing diplomatic and political support, readily could convince yet other possible proliferators that their acquisition of nuclear weapons would not lead to an adverse foreign reaction. Moreover, if the ally or friend had violated one or another of its legal obligations, say by misusing material or technology intended only for

generating nuclear power, it might be all the more important to respond in a punitive manner.

Other considerations also might suggest that U.S. policy should lean toward decoupling from newly nuclear allies. With the emergence of additional independent centers of nuclear decision-making, the risks of continued involvement in what probably would be conflict-prone or at least tension-prone regions could be thought too high. Similarly, concern about the higher risk of conflict in situations where the ally's nuclear force might be vulnerable to surprise attack, creating pressures for use of nuclear weapons in the early stages of a conflict, also might point toward a more removed posture. As well, such decoupling could be thought necessary in response to the augmented risk of a U.S.-Soviet confrontation perhaps arising from events triggered by this U.S. ally or its opponent's reactions to its new nuclear capability.

By contrast, there are longer term factors which suggest that U.S. policy should seek to accommodate the emergence of U.S. allies who had newly acquired nuclear weapons. By so attempting to integrate allied new nuclear weapon states into a broader security structure rather than cutting them adrift, U.S. policy might:

- provide a framework for absorbing and checking the new proliferator, helping thereby to slow or limit any possible chain reaction effects in response to that first country's acquisition of nuclear weapons;
- reduce the risk of local nuclear conflict by taking the next step of helping that ally to acquire a safe, secure, and accident-proofed nuclear force;
- influence the nuclear doctrine and practices of the newly nuclear ally, again possibly reducing the risk of local nuclear conflict;

- make it less likely that the new proliferator, say Japan, eventually would come to threaten the United States or U.S. security interests within its region as could happen if the United States decoupled and imposed sanctions; and
- particularly in regions of U.S.-Soviet competitive involvement, avoid giving the Soviets a free rein to expand their influence and presence such as could be provided by a policy of decoupling.

While the eventual U.S. response is likely to fall in between the poles represented by these two alternatives, in light of the widely reported indications that at least some U.S. allies or friends may be assessing the nuclear weapon option it is not too soon to think through some of the implications for U.S. defense planning if they take up that option. Doing so could help avoid situations comparable to the costly deterioration of U.S.-French political and military relations in the 1960s, a deterioration partly due to the U.S. response to France's decision to acquire nuclear weapons.

Conclusions

More widespread proliferation is likely to have a range of implications for U.S. defense planning. Among the more important ones identified in this report are possible requirements for:

- acquisition of higher confidence strategic and tactical intelligence about the nuclear assets of new proliferators as well as about possible nuclear threats to CONUS;
- the modification of the tactics, training, communication systems, and force structure of U.S. intervention forces to improve their capabilities for projecting U.S. power into tactical situations where hostile nuclear weapons previously had not been present;
- a limited restructuring of U.S. strategic offensive forces to permit them to carry out new missions in a more proliferated world, ranging from the neutralizing of a new proliferator's nuclear force to surrogate retaliation on behalf of an attacked ally or friend;

- the adoption of measures to reduce directly and indirectly the threat posed to CONUS by new proliferators or sub-national groups, including augmented air defenses, improved border, coastal, and global surveillance and monitoring, assistance to new proliferators in designing a physical security system to reduce the risk of a sub-national group's nuclear theft, plans for implementing limited city evacuations, and perhaps eventual deployment of a light area BMD system;
- planning and acquisition of the needed capabilities for supporting non-nuclear allies or friends threatened by a new proliferator, whether by providing air or missile defenses, pledges of surrogate retaliation in the event of attack, or post-attack recovery assistance;
- eventual initiation of U.S.-Soviet talks designed to reduce the risk of superpower confrontation in newly nuclear conflicts;
- unilateral U.S. actions to improve the likelihood of a favorable outcome in the event of a proliferation-triggered superpower crisis;
- in the event of either the sooner-than-usually-anticipated emergence of lesser nuclear powers with nuclear-armed missiles capable of targeting CONUS or the Soviet homeland or the acquisition of nuclear weapons by Japan or West Germany, joint U.S.-Soviet action to manage the repercussions for the central strategic balance and to hold in check any pressures for an upward shift from SALT-set strategic forces limits; and
- prior planning of U.S. responses if an ally or close friend "goes nuclear."

With the exception of those following from Japanese or West German acquisition of nuclear weapons, the actual individual defense planning adjustments or modifications entailed by the preceding set of requirements appear limited. Nevertheless, adequately protecting U.S. security and security interests in a more proliferated world is likely to require their further detailed delineation and eventual implementation. Consequently, it is not too soon to begin on a more regularized basis to seek to identify yet other defense posture implications even while more carefully assessing those preliminary ones identified in this report.

APPENDIX

Selected Papers

INTELLIGENCE FORECAST: THE PERSIAN GULF
IN A NUCLEAR PROLIFERATED WORLD*

by

George Wittman

This paper originally appeared as
HI-2826-DP, May 4, 1978

*The following paper, although written a year ago, continues to have impact as of this date. In fact, the events in Iran and the recent Israeli/Egyptian peace agreement actually are considered an integral part of the analysis and alternatives offered.

INTELLIGENCE FORECAST: THE PERSIAN GULF
IN A NUCLEAR PROLIFERATED WORLD

George H. Wittman

The production of oil from the states of the Persian Gulf will remain the principal element in the economic security of Western Europe, the United States, and Japan through to the end of the century.

Percentage of Oil Demand Supplied from the Persian Gulf*

	<u>'76</u>	<u>'80</u>	<u>'85</u>	<u>'90</u>
United States	18%	24%	22%	23%
Western Europe	66	56	57	54
Japan	75	67	69	79

In consequence, political military action in this region represents, at the minimum, the foremost indirect threat to "Western security" for some time to come. Thus, any inquiry into the mechanics of a nuclear proliferated world demands a first priority investigation of the implications of proliferation as it impacts upon and/or emanates from this region.

Israel/Arab Conflict

The possibility exists of an eventual bastardized structure neither wholly Israeli, Jordanian, or Palestinian on the West Bank of the Jordan River. The potentiality for a major conflict ultimately involving the United States actually increases rather than decreases in this type of situation. Division of authority in a West Bank state lends itself to exploitation by all groups concerned and, most particularly, by indigenous Palestinian elements for whom disruption of any kind is valuable in upsetting a status quo in which they do not have principal authority. I suggest that the interests of various Palestinian political groupings plus a future more belligerent Iraq--and

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As projected by reliable industry sources.

even Syria--would be served in the creation of a multi-sided conflict not dissimilar to the confused structure of the recent Lebanese Civil War. I foresee the U.S. involved from the outset in the policing of any joint administration of the West Bank either through some form of "guarantee" system or as part of a token U.N. force balancing the presence of opposing constituencies. This American presence becomes even more possible as we go into the longer time frame and the process of a post-Vietnam political/psychological mind set diminishes. Additional American guarantees would have had to have been created in order for there to be an agreement at least with the anti-Communist governments of Egypt, Jordan, and Saudi Arabia. Such a presence in the form of a U.S. Naval base in Israel (Jaffa or Haifa) and air bases in the Sinai and Saudi Arabia have been mooted. I believe that in the longer time frame there will be an increased American willingness to participate directly in a physical presence and security guarantee of the area. Part of the justification for this lies in my perception that the U.S. will take an ever increasing interest in direct political, economic, and military involvement in the Middle East. This will be a result of the increasing awareness of the importance of the Persian Gulf in international financial terms as well as the continuing dominant role this strategic region plays as a petroleum source for Western Europe, Japan, and Eastern United States.

A not unreasonable sequence of events within the "West Bank structure" that could generate the type of full-scale conflict I'm suggesting could be created easily through the well-planned and well-executed activities of a radical group of "rejectionists." Using appropriate terrorist techniques on Arab, Jewish, and even U.N. (U.S.?) peacekeeping forces in such

a manner would force harsh repressive measures, mutual recriminations, and charges of blame among the various controlling groups. Such circumstances have considerable precedent not only in the history of Israel/Arab conflict, but even intra-Arab outbreaks of recent times. The lack of clear-cut authority through overlapping areas of interest of the controlling groups lends itself to such exploitation. Expansion of such conflict under these circumstances becomes virtually assured as a result of the confusion and chaotic character of an insurrection.

At the present we are actually in a period of relative moderation in respect to the character of leadership in the key Arab confrontation states of Syria, Jordan, and Egypt. Even Iraq, in spite of its strident propaganda, also has been constrained in a "moderate" position partly through its own internal problems, but also through the lack of encouragement by the Soviets towards more overt action. Israel tested this moderation by its invasion of South Lebanon. Israel's military strength acts as an "encouragement" of the current Arab moderation. But this is a two-edged sword which works toward an equal "encouragement" of Syria and Iraq to seek substantial growth in their military capability. I hold that relatively moderate Arab political positions plus the current Israeli clear military superiority are, in any event, transitory. In consequence, even aside from the West Bank scenario noted above, I expect another military confrontation developing between the Israelis and Arabs in the next ten years. It could evolve from an extension of the continuing conflict along the Litani River line in southern Lebanon. It could evolve through a dramatic shift in government in Damascus and a fraternal alignment with a radical

Iraq. In fact, the Middle Eastern peace scene is totally vulnerable to any number of regional plots and coups which might alter the "peaceful" attitudes and situations that currently exist. And this is aside from changes toward a more aggressive posture by the Soviets--always a prospect. The record in the past--if that has value--indicates mutual moderation is a discontinuous factor in the Arab/Israeli conflict.

Israel and the Arabs in a Nuclear Proliferated World

That the Israelis already have a nuclear weapon capability is, in my mind, an accepted fact by the several Arab governments confronting the Israeli state at this time. Thus, any consideration of a nuclear proliferated world will have to proceed on the basis that the Arabs will conceive of the Israelis as perpetually having an advantage over them in terms of not only the amount but the quality of nuclear weapons at their disposal. On the other side of the coin is the fact that the Israelis will undoubtedly attempt to seek some form of nuclear superiority over the Arab nations of the region under the same security requirements as they perceive to be important now. Thus, the possibilities for an overt nuclear race are extremely high after one accepts the proliferation of nuclear weaponry in the region. The principal advantage that the Israelis therefore would seek to have would be in the character of this weaponry. The enhanced radiation warhead may be seen as one of the methods of fulfilling the requirements of nuclear military operations in this region.*

Although it seems unlikely that anyone could develop an ERW without understanding thermonuclear technology, it would appear that the Israelis,

* This refers to the rough terrain of the Golan Heights as well as the region on the eastern sector of the Litani River region. There are limited routes available for Arab armor forward movement on the Syrian, Jordan, Lebanon front, thus providing possible good targeting choices for ERW.

in an indefinite time period forward, would certainly have the advantage over their Arab neighbors in such a development. In any case, a nuclear proliferated world, in a Middle Eastern context, might do well to take into consideration the evolution of the ERW in Israeli hands. However, such a nuclear superiority in character of weapons need not be a given in a conflict situation for the region. Suffice to say that the Israelis in a proliferated world would have a weapon capability equalling or exceeding the combined abilities of the Arab confrontation states.

There is a conspicuous difference, however, in the vulnerability of Israel to a nuclear attack and the vulnerability of the potential Arab confrontation states of, for instance, Syria and Iraq. The two main population centers in Israel, mainly Tel-Aviv and Haifa and the coastal region between them, represent the heart of the Israeli economic industrial infrastructure. The Israeli Defense Command is located in the Tel-Aviv region, and although the other principal government offices reside in Jerusalem, the latter city is, in effect, non-essential in the economic existence of Israel as a nation. This is not to be confused with its preeminent role in the political/spiritual sense of Israel as a nation. In consequence, a nuclear attack on Tel-Aviv and Haifa virtually destroys Israel's access to the sea as well as totally disrupting its economic infrastructure. At the same time, nuclear attack on these areas might deal a serious blow to the basic command and control structure of the Israeli defense forces, both in terms of communication and top-level military personnel. Field forces of the Israeli Army and certain units of the Israeli Air Force would not be immediately affected, but ultimately their viability as a cohesive fighting unit would have to be drastically influenced. Thus, Arab forces would not have to take the step that they themselves would find inimicable to their ultimate interests; namely a nuclear attack on Jerusalem.

Although both Syria and Iraq are vulnerable in several areas to nuclear attack that would tend to bring their governmental and military structure to a standstill, in no way could a similar attack (involving only several nominal yield devices) on Syria and Iraq be compared in the total sense of national devastation that such a relatively simple nuclear attack would have on Israel. The size alone of the nations concerned here becomes a principal factor.

Thus, we have a situation of which the Israelis most certainly will be quite aware. In order for them to be involved in a nuclear war, they must maintain a first strike capability which will have the intent of wiping out (of nullifying) the opposing forces. And they must plan to choose to do this at such a time as they will be able to point to a fait accompli and not be restrained by the U.S. or international pressure. (This, by the way, has been the Israeli modus operandi for 30 years.) If the Israelis perceive that they are in danger of a nuclear attack by an Arab aggressor, they will most certainly strike first. It is, therefore, the perception of the imminence of an Arab nuclear attack on which we must concentrate.

Iraq/Iran Pivot: Iraq

The rivalry between the Syrian and Iraqi Baathist Parties continues unabated and there appears no indication that any change will occur during the lifetimes of the current leaders. In regard to matters nuclear, however, it doesn't matter whether the two nations remain at odds. In either case if one acquires (or is perceived as having acquired) a nuclear weapon capability, the other will follow suit. If the two nations draw together

in fraternal union, the sharing becomes automatic. If they remain in the state of covert paramilitary belligerency and overt political belligerency (such as now exists), the rivalry factor comes into play.

Technically the Iraqis appear to have a nuclear leg up on the Syrians at this time. It is not unwarranted to expect Baghdad to seek to maintain this lead. But Iraqi nuclear ambition is influenced as much, if not more, by the principal regional factor not involved in the Arab-Israeli conflict--Iran. As has been pointed out in several treatises on the subject, the acquisition of a nuclear capability by either of the two countries (Iran/Iraq) would act as a trigger for similar development by the other.* In consequence (on strictly political/strategic grounds if no other), acquisition--or perceived acquisition--of a nuclear weapon capability by any one of the three nations (Iran, Iraq, Syria) would indicate a trigger for the other two. This is, in my view, a reasonable first step explanation of nuclear proliferation in this region.

In my mind, the principal determinant in the hesitancy of the Iraqis in attaining a nuclear weapon capability has been less the unwillingness on the part of the Soviet Union to supply the Baghdad regime with the requisite technical assistance than it has been a perception on the part of the Iraqis that their acquisition of nuclear weapons would trigger a utilization by the Israelis of their own nuclear weapons at the first instance of another Arab-Israeli conflict. In other words, the Iraqis believe what the Israelis have sought to make clear to possible enemies: that the potential for Israeli nuclear weapon acquisition, and their willingness to use nuclear weapons as an instrument of ultimate protection of their state is an integral part of Israeli

*Dunn, Lewis A., Changing Dimensions of Proliferation Policy, 1975-1995, (Hudson Institute, HI-2497/2 RR, February 15, 1977).

defense planning. This, I believe, has been a consideration in Iraqi strategic planning during the 1970s period of Arab/Israeli confrontation. However, this nuclear weaponless strategic planning on the part of Baghdad has been based on a circumstance of a relatively united front against Israel by the Arab nations. A breakdown in that historical alignment and, in fact, direct intervention by the Americans in a Middle East peace settlement would appear to me to be a highly influential factor in a changing strategic perception by the Iraqis (see page one). The question is then posed: Would the Soviets allow Baghdad to proceed toward development of its own weapons? The answer is more technical than it is political. The degree of influence that the Soviets have over Iraq really depends on how strongly they (the Soviets) feel on a given subject. If the Soviets are adamant about their desire for the Iraqis to remain non-nuclear, they could conceivably force the Baghdad regime to remain in that state. However, my view of the Soviet interests and relations in that area is that unless the Soviets were deeply involved and honestly committed to an active non-proliferation role throughout the world, they would be willing to allow the Iraqis to proceed with the development of a nuclear weapon capability if Baghdad absolutely insisted upon it in terms of their (Iraq's) own perception of survival.

It is the why, however, of the acquisition of nuclear weapons by Iraq which, for the purpose of this work, is more important than the how.

If the Iraqis obtained nuclear weapons in an attempt to balance off in strategic terms a new political structure which would exist in the Middle East as a result of a "peace" guaranteed in some form by the Americans, this would then mean that the potential for use by the Iraqis of these weapons must be considered as much in anti-American terms as anti-Israeli terms. And the outgrowth of this logic would place the American and Western interests in Persian Gulf oil in jeopardy. Presumably, in a peace plan guaranteed by the Americans there would be an agreement, as indicated earlier in this paper, among the essentially anti-Communist countries of the region. This obviously includes Saudi Arabia. Thus, the threat of the Iraqis to take nuclear action against Saudi Arabia and its oil facilities has legitimate political continuity and indeed has, in Iraqi terms, considerable validity. Inhibited from direct action against the United States and perhaps seeing America even more responsive to a blackmail attempt to cut off Western oil supplies from Saudi Arabia, the Iraqis would have in their minds developed a powerful and logical international weapon. Whether or not the Iraqis actually use the weapon becomes of less importance than the fact that the leverage is there. The leverage (threat?) would make more effective a strictly conventional attack on the Gulf initially through an invasion of Kuwait (with which the Iraqis for a long time have had serious disagreements over border lines and territorial disputes) southward toward the key Saudi oil complex at Dharan.*

*Such a scenario, as outrageous as it may appear at this time, has reasonableness when one thinks in radical Iraqi terms. What is unreasonable is to continue to conceive of a nuclear proliferated world in which the minor countries, such as Iraq, who might have nuclear weapons will be effectively constrained from use, or threat of use, of these weapons by the major powers. Scientific advance by the region, as well as elsewhere in

Considering the foregoing, it would appear clear that at a time of a future confrontation between Israel and Arab radical states involving Iraq, Saudi Arabia and its oilfields in effect become a hostage; its threatened destruction would be utilized by the radical Arab forces to seek to force the United States to coerce Israel into ceasing its military activities. (This statement actually holds true at the present time even with conventional weapons use.) The Arab Nations, as we know them today, and as they have appeared to believe in the past, consider the United States capable, in both first and last instance, of controlling Israeli military behavior. Although this view has little basis in fact, it would appear that it is a given in terms of radical Arab thought. There appears to be no indication that they would change this view in a nuclear proliferated world. Thus, the danger of nuclear or even conventional attack on Saudi oilfields and processing facilities emanates from the value of such efforts to the Arab confrontation states such as Iraq rather than to the often referred to Israeli ambitions in that direction. It is clear that the Israelis do not see the United States as capable of influencing Arab nations even if we were willing to succumb to an Israeli threatened nuclear attack on Saudi Arabian facilities. Nuclear blackmail only has the possibility of legitimacy when the capability of success is perceived. And, in political

the world, has done little to make more sophisticated the political drives, ambitions, and methods of the countries concerned. The less-developed countries, in spite of the acquisitions of new economic and technical capability (and in some cases even financial leverage) have not shown a concomitant growth of political sophistication or even serious interest in the growth of political sophistication. To my mind, the problem will continue to exist beyond the year 2000, and the obvious disparity between the industrialized nations of the world with their scientific advancement and intellectual growth toward restraint in warfare will be in marked contrast to a continuation of the basic and primitive approaches of the Third World to its political military strategies. The worlds of difference that exist economically will be reflected even more starkly in the differing attitude toward war as an extension of political aim and ambition.

terms, threat of destruction of Saudi oil facilities has validity only if conceived of as an effort to force the Americans to exercise some form of control over Israel or another so-called American client state in the region.

Iraq/Iran Pivot: Iran

This latter point then brings us back again to the regional position of Iran and the nuclear equation that has been suggested previously evolving from a Syrian/Iraqi/Iranian proliferation relationship. Not only, as indicated earlier, is Iran's nuclear weapon development tied to that of Iraq and Syria, its role as an American-oriented state in the region automatically places it in the same position vis-a-vis Iraq as the previously noted scenario regarding Israel. A breakdown of relations between Iraq and Iran in which Iraq conceives of itself as imperiled would bring about the same possible threat against Saudi oil facilities as a method of forcing the U.S. to make the Iranians alter their military stance vis-a-vis Baghdad. Again, such a nuclear blackmail position on the part of Iraq has strategic legitimacy with or without the support of the Soviet Union. In fact, it would appear advantageous for the Soviets to avoid involvement in a future Iraq/Iran conflict and simply stand aside limiting their role to one of propaganda and diplomacy. However, it is highly doubtful that Iran, in any circumstance involving a threat against Saudi oilfields by the Iraqis, would similarly stand aside. It therefore need not be a direct Iran/Iraq conflict in order to involve Iran in the dispute. The Iranian view of its position as the "protector of the Gulf"--although it may be, at this stage, one-sided--does appear to have an element of continuity about it that can only

increase rather than decrease as their military power grows. In consequence, although the Gulf states, themselves, might be unwilling to accept Iranian protection under a formalized agreement (although such agreement has for some time been under discussion) there is no question in my mind that the Iranians would become directly involved in any Iraqi action that endangered a Gulf state.

Aside from the possible Iranian involvement in a Arab/Israeli confrontation in a future nuclear proliferated world, there are three separate flashpoints which are involved in Iranian/Iraqi relations which can be considered separately and/or mutually influencing:

- The first one is the continuing Kurdish minority problem that directly affects the stability of Iraq. The Kurds make up nearly 20 percent of the entire population of Iraq. In spite of the recent accords evolved through the agreement of the Iranians to terminate their assistance to the Kurds, the dissidence of this important minority continues. It is more reasonable to expect that Kurdish dissidence will grow and at some time in the future regain its serious status as a military problem for Iraq, than to suspect that it will disappear. The possibility (attaining a degree of probability) therefore exists of the cessation of the 1975 agreement between Tehran and Baghdad halting Iranian assistance to the Kurds. The probability increases if either of the two other elements of contention surface between Iraq and Iran.
- Of these two, the sovereignty which Iraq exercises over the region of the Shatt-al-Arab represents an extremely important strategic and political factor at the eastern portion of the Gulf. This region was under dispute between Iran and Iraq since the days of the current Shah's father. It was resolved (by an agreement in 1959) and, for the moment at least, this important juncture of the Tigris and Euphrates Rivers lies within the borders of Iraq. However, Iran unilaterally abrogated the treaty in 1969 and under provocation might again. For Iraq the ports of Umm Qasr and Fao represent key shipping and naval bases. The delta area, itself, is an essential opening to the sea for the Baghdad government. On the Iranian side, this region is in close proximity to its oilfields as well as the refineries at Abadan, its many installations near the Diz Dam, and the electricity

and irrigation projects of this area of southeastern Iran (by the way, an area comprising Khuzistan, historically a region prone to rebellion).

- The third flashpoint is, of course, the internal situation in Iran itself.* For many years Baghdad has been the home for numerous expatriate Iranians, many of whom have been actively involved in the covert resistance to the Shah and his regime. Principal among these people is the group of socialist and Shia Moslem leaders who unsuccessfully attempted the overthrow of the Shah in 1962 and now represent the main element in the establishment and maintenance of radical political/religious cell groups operating against the Shah's government. Extension of the activities of these groups (as we have seen in recent months) remains a major potential area of conflict between Iran and Iraq.

In the eventuality of a conflict between Iran and Iraq (in which the Iraqis would undoubtedly find themselves at a military disadvantage) the concept of nuclear blackmail against the Saudi oilfields, as noted before, comes into play. However, if one considers the possibility of a government in Iran which is not closely American tied, such as might occur at the death of the Shah or a coup d'etat, the situation changes. But the change of the situation only affects the potential of a military conflict between Iran and Iraq. A socialist Iran, conceivably friendly with Iraq, would not react to an Iraq blackmail attempt against the Saudi oilfields in the same manner as a pro-American Iranian government. In fact the danger exists that an entente between a socialist Iran and Baathist socialist Iraq would simply add to the blackmail capabilities of the radical nations in the region. Thus, in such a consideration, the oilfields in Saudi Arabia, Kuwait, and the United Arab Emirates would be vulnerable to a combined Iraqi/Iranian conventional force activity controlling all oil coming out of the Gulf. This then could be adequately backed up with the nuclear capability

* See HI-2743/2 DP, pp. 4-2,3

of both Iran and Iraq to threaten to attack the Saudi and/or Kuwaiti oilfields. Thus, in either case (a pro-American Iran or an anti-American Iran) the problem exists of nuclear attack on the peninsula oil-producing countries, with the principal target being Saudi Arabia.

Soviet Position

It is important to note that in all the foregoing commentary the direct involvement of the Soviet Union in these activities need be totally non-existent. The U.S.S.R. can stand aside from active participation in either the threat or the actual utilization of nuclear attack on the region. Operating solely through regional powers, the Soviet Union can stand back and allow a situation to be created in which the economic security is threatened of Japan, Western Europe, and, to a certain degree, even the United States. Indeed, Moscow even can pretend to attempt to intercede with good offices and yet be able to control such "negotiations" in whatever manner that they find most politically advantageous. Such a role would give them an excellent "white hat" image and preserve for them an advantageous political position in world affairs. Obviously, therefore, the vulnerability of the Saudi, specifically, and Gulf oil facilities, in general, becomes for both the U.S.S.R. and the U.S. a priority consideration in future political and military strategies--albeit for directly opposite reasons.

* * * * *

This paper points to a variety of implications relative to U.S. military posture, intervention requirements, etc. It is to these specific issues that we are currently addressing our investigation and analysis.

MIDDLE EAST-PERSIAN GULF NUCLEARIZATION:
SOME DIMENSIONS OF THE THREAT

by

Lewis A. Dunn

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MIDDLE EAST-PERSIAN GULF NUCLEARIZATION:
SOME DIMENSIONS OF THE THREAT

To be read in conjunction with George H. Wittman's "Intelligence Forecast: The Persian Gulf in a Nuclear Proliferated World,"¹ this paper provides additional background material for discussion of possible threats to United States security interests--and associated postural implications--of 1980s Middle East-Persian Gulf nuclearization. More specifically, it first very briefly sketches that continuing development of the nuclear infrastructure within many Middle Eastern countries which is lowering the technological barrier to their nuclear-weapon acquisition. Concomitantly, such factors as nuclear gray and black marketeering that could accelerate these countries' advance up the nuclear ladder--or in some cases even make that advance possible at all--are noted. Then, the likely parameters of the new nuclear forces in the Middle East and Persian Gulf--delineated by stockpile size and war-head characteristics, mode of delivery, force survivability, and adequacy of command and control--are briefly addressed. Finally, to facilitate discussion, it concludes with a series of propositions about the implications of Wittman's forecast in light of these technical parameters.

Up the Nuclear Ladder

During the next decade, most countries within the Middle East and the Persian Gulf will continue their ascent of the nuclear ladder, rising from assimilation of a basic knowledge of the theory of fission toward access to fissile material and the related components necessary for designing and producing a nuclear weapon. Aspects of that advance can be readily cited.

¹ HI-2826-DP, May 4, 1978.

Iran, for example, is committed to an ambitious nuclear power program whose initial goal is more than 20 GWe of installed nuclear electrical generating capacity by the mid-1990s. Concomitantly, far-reaching Iranian efforts are underway to provide the trained engineering, technical, and scientific manpower to support that growing civilian nuclear industry: Iranian graduate and post-graduate students are being trained in France, Germany, the United Kingdom, Austria, and the United States.² Or, to cite another example, Iraq has recently negotiated for French assistance in developing its nuclear infrastructure, including establishment of a nuclear research center outside of Baghdad.³ And these Iraqi activities in turn have stimulated growing Syrian and Saudi Arabian efforts to begin acquiring the nuclear basics.⁴ These as well as other examples such as the training of Egyptian scientists at India's Bhabha Research Center, Saudi Arabian financial involvement with Pakistan's reprocessing plant in return for later training access, and, of course, Israel's growing nuclear capability could be described in detail. Instead these countries' expanding nuclear capabilities are more usefully summarized briefly in the tabular form of Table 1. More important, as that summary indicates, by the mid to late 1980s many Middle East and Persian Gulf countries would possess one or another type of nuclear-weapon option.

Moreover, the emergence of nuclear gray and black marketeering in the

²Nuclear News, Mid-February 1976; Nucleonics Week, October 20, 1977. For a good brief review of nuclear energy programs in the Middle East, see Paul Jabber, A Nuclear Middle East: Infrastructure, Likely Military Postures and Prospects for Strategic Stability (Los Angeles: Center for Arms Control and International Security, University of California, 1977), pp. 7-16.

³Nuclear News, October 1975.

⁴Nucleonics Week, February 23, 1978.

Table 1

GROWING TECHNICAL CAPABILITIES*

	<u>1975</u>	<u>1980</u>	<u>1985</u>
7. DEMONSTRATED URANIUM ENRICHMENT CAPABILITY	Israel (?)	Israel	Israel
6. CAPABILITY TO BUILD LARGER PLUTONIUM PRODUCTION REACTOR (20 bombs/year)	Israel	Israel	Iran (?); Iraq (?); Israel
5. CAPABILITY TO BUILD SMALL PLUTONIUM PRODUCTION REACTOR (2 bombs/year)		Egypt (?); Iran (?); Iraq (?)	Egypt; Iran; Iraq; Libya (?); Syria (?); Saudi Arabia (?)
4. EFFECTIVE ACCESS TO SIGNIFICANT QUANTITIES OF DIVERTIBLE FISSIONABLE MATERIAL FROM CIVILIAN NUCLEAR FUEL CYCLE			Iran; Iraq
3. OPERATION OF NUCLEAR POWER PLANT(S) AND START OF NASCENT NUCLEAR INFRASTRUCTURE			Kuwait; Saudi Arabia
2. NUCLEAR POWER PLANTS UNDER CONSTRUCTION OR PLANNED	Iran; Iraq; Kuwait	Egypt; Iran; Iraq; Kuwait; Saudi Arabia	Egypt; Libya; Syria
1. ASSIMILATION OF BASIC THEORETICAL KNOWLEDGE OF FISSION	Egypt; Libya; Saudi Arabia	Libya; Syria	

*SOURCES: SEE APPENDIX P. 16.

early 1980s could accelerate that growth of nuclear capabilities and provide certain countries with a capability that otherwise would have been beyond their technical options at that time. Although reasons of space preclude a detailed discussion,⁵ several elements should be explicitly highlighted. To begin, gray market availability of nuclear mercenaries--trained individuals with backgrounds ranging from such "industrial" aspects as reactor design and plutonium reprocessing to nuclear-weapon design--could provide aspirant Middle East or Persian Gulf proliferators with useful technical know-how and experience. Depending on the recipient, that assistance might speed up an indigenous non-fuel-cycle dependent nuclear-weapon program, permit a more ambitious indigenous program, or facilitate illegal diversion from civilian nuclear fuel cycle facilities. Similarly, government to government gray market exchanges of nuclear-weapon related information, materials, or facilities might occur. Again the nuclear-weapon options open to countries would be increased. Though perhaps less likely, corporate to government gray or black market exchanges cannot be precluded. Particularly in the Middle East and Persian Gulf middle level officials of international energy corporations--whose purview ranges from oil to enrichment--might find themselves pressured to procure a specific component or supply know-how of use to a nuclear-weapon program. Finally, as suggested by the possible diversion of fissile material from the Apollo, Pa. nuclear facility,⁶ eventual black market acquisitions of nuclear material are not implausible. And once the commercial reprocessing

⁵See Lewis A. Dunn, et al., Routes to Nuclear Weapons: Aspects of Purchase or Theft (Hudson Institute, HI-2538/2-RR, April 1977). Report prepared for U.S. Congress, Office of Technology Assessment.

⁶Nucleonics Week, October 13, 1977.

of spent reactor fuel commences--even if in only a few "secure" sites--that in all probability would facilitate the growth of such black marketeering.

Thus, in the Middle East and Persian Gulf the technical barriers to nuclear-weapon acquisition will continue to erode over the next decade. At the same time, emergence of nuclear gray and black marketeering would accelerate that erosion of technical constraints, further expanding the nuclear-weapon alternatives open to the countries in question. And for some countries still possibly near the bottom rungs of the nuclear ladder in the 1980s, e.g., Libya or Syria, such assistance could be critical to acquisition of even a rudimentary nuclear-weapon capability.

Parameters of Middle East-Persian Gulf Nuclearization

Brief description of the likely parameters of 1980s Middle East-Persian Gulf nuclearization also aids the identification and evaluation of possible threats to United States security interests and their implications for military posture. Consider the following questions. How many nuclear weapons, with what characteristics, would these countries be likely to possess? How would they be delivered? What degree of protection against a neighbor's surprise disarming attack--or that of a superpower--is to be expected? Would there be adequate command and control to protect against unauthorized access and use by individual officers or scientists, dissident or radical terrorist groups, and military coup-makers? Any attempt to answer these questions, of course, confronts many uncertainties. Nonetheless, it is feasible to sketch with broad strokes the probable characteristics of new nuclear forces in the Middle East and Persian Gulf.

Taking up first the question of how many nuclear weapons these countries might be able to acquire,⁷ for analytic purposes four sizes of nuclear warhead "stockpile" may be distinguished: one (1) warhead; between two (2) and ten (10) nuclear weapons; between twenty (20) and fifty (50); and more than one hundred (100) nuclear warheads. Though least likely, the first--one warhead--would encompass access to a nuclear weapon by isolated purchase or theft, perhaps by a radical mini-state such as the PLO. The second--between two and ten warheads--probably would correspond to the first-year output of a small plutonium production reactor or small-scale centrifuge or jet nozzle enrichment facility; or it would encompass several years output from such facilities. It also might represent reliance on more extensively available black market fissile material or a better organized, larger theft. In turn, a twenty to fifty warhead stockpile would correspond to the first year's output of a larger Hanford-size plutonium production reactor, several years output of that larger plutonium production reactor, or the output of a larger enrichment facility. Alternatively, depending on the scope of the country's civilian nuclear activities, this size stockpile could represent the output of a large-scale overt diversion of fissile material. Finally, at least for the countries in question in the period here discussed, the most likely route to the posited stockpile of more than one hundred warheads would be overt diversion from the civilian fuel cycle. As for the specific Middle East and Persian Gulf countries, the following table--based on Table 1 and on more detailed data on their nuclear power plans--breaks them down by

⁷The following draws on Lewis A. Dunn and Herman Kahn, Trends in Nuclear Proliferation, 1975-1995 (Hudson Institute, HI-2336/3-RR, May 15, 1976) and Lewis A. Dunn, Changing Dimensions of Proliferation Policy, 1975-1995 (Hudson Institute, HI-2497/2-RR, February 15, 1977). Reports prepared for the U.S. Arms Control and Disarmament Agency.

Table 2

APPROXIMATE WARHEAD STOCKPILES
(MID TO LATE 1980s)

<u>1 warhead</u>	<u>2-10 warheads</u>	<u>20-50 warheads</u>	<u>more than 100 warheads</u>
PL0(?)	Egypt; Iran; Iraq; Libya(?); PL0; Saudi Arabia(?); sub-national coup- makers or fanatics	Israel; Iran(?);* Iraq(?)	Iran(?)

*Some countries, e.g., Iran, are placed in more than one category because of uncertainty about their technical capabilities and whether they would choose to divert fissile material from their civilian nuclear fuel cycle. The less certain outcomes are indicated by the question mark (?) after the country's name. With the growth of gray marketeering, to repeat, countries would be able to pursue more rapid and ambitious nuclear-weapon programs.

SOURCE: See Table 1.

potential warhead stockpile sizes.

Regarding the weapons themselves, there is little reason to doubt that these new proliferators would be capable of producing well-packaged Hiroshima-yield fission warheads weighing approximately one thousand pounds. Such warheads could be readily carried by those nuclear-capable aircraft described below. In the time period of the 1980s, development of thermonuclear weapons probably would exceed all but Israel's capability. Greater concern about these warheads' accident-proofing, however, may be warranted. A perception of the need for ready access, based on political-security calculations in a hostile region, well might preclude reliance on simple accident-proofing such as maintaining unassembled weapons. But, at least initially, more sophisticated designed-in measures such as those which have permitted American nuclear weapons to withstand the heat and impact of air crashes without detonating and producing a nuclear yield may be beyond many of these countries' technical or financial capability--if only due to the need to concentrate scarce resources on highest priority objectives. If so, a serious risk of accidental detonations has to be assumed present.

A wide variety of nuclear-capable delivery systems including both nuclear-capable aircraft and short range surface-to-surface missiles currently are available to countries within the Middle East and Persian Gulf. These are summarized in Table 3. Moreover, for those countries capable of developing lower-weight, more compact warheads, other modes of delivery might already be or become available, e.g., naval attack missiles--for instance, Styx and, if sold, Shaddock--torpedoes, air-launched cruise missiles, and even artillery shells. Nor should these proliferators' indigenous

Table 3

NUCLEAR CAPABLE DELIVERY SYSTEMS
IN THE MIDDLE EAST-PERSIAN GULF*

	<u>System</u>	<u>Approximate Combat Radius or Range (miles)</u>	<u>Countries Operating</u>
S/S Missiles	SCUD	175	Egypt, Libya, Syria
	Frog	35	Egypt, Iraq, Syria
	Jericho	300	Israel
	Lance	up to 70 n.m.	Israel
Aircraft	Tu-16 (Badger)	3000	Egypt, Iraq
	Il-28 (Beagle)	680	Egypt, Iraq, Syria
	Mig-21 (Fishbed)	600-1000	Egypt, Iraq, Syria
	Mig-23 (Flogger)	600	Egypt, Iraq, Libya, Syria
	Su-7 (Fitter)	900	Egypt, Iraq, Syria
	Kfir	700	Israel
	F-4 (Phantom)	900-1000	Iran, Israel
	A-4 (Skyhawk)	900	Israel

*SOURCE: IISS, THE MILITARY BALANCE 1977-1978; ROBERT J. PRANGER AND DALE R. TAHTINEN, IMPLICATIONS OF THE 1976 ARAB-ISRAELI MILITARY STATUS, (AMERICAN ENTERPRISE INSTITUTE, 1976).

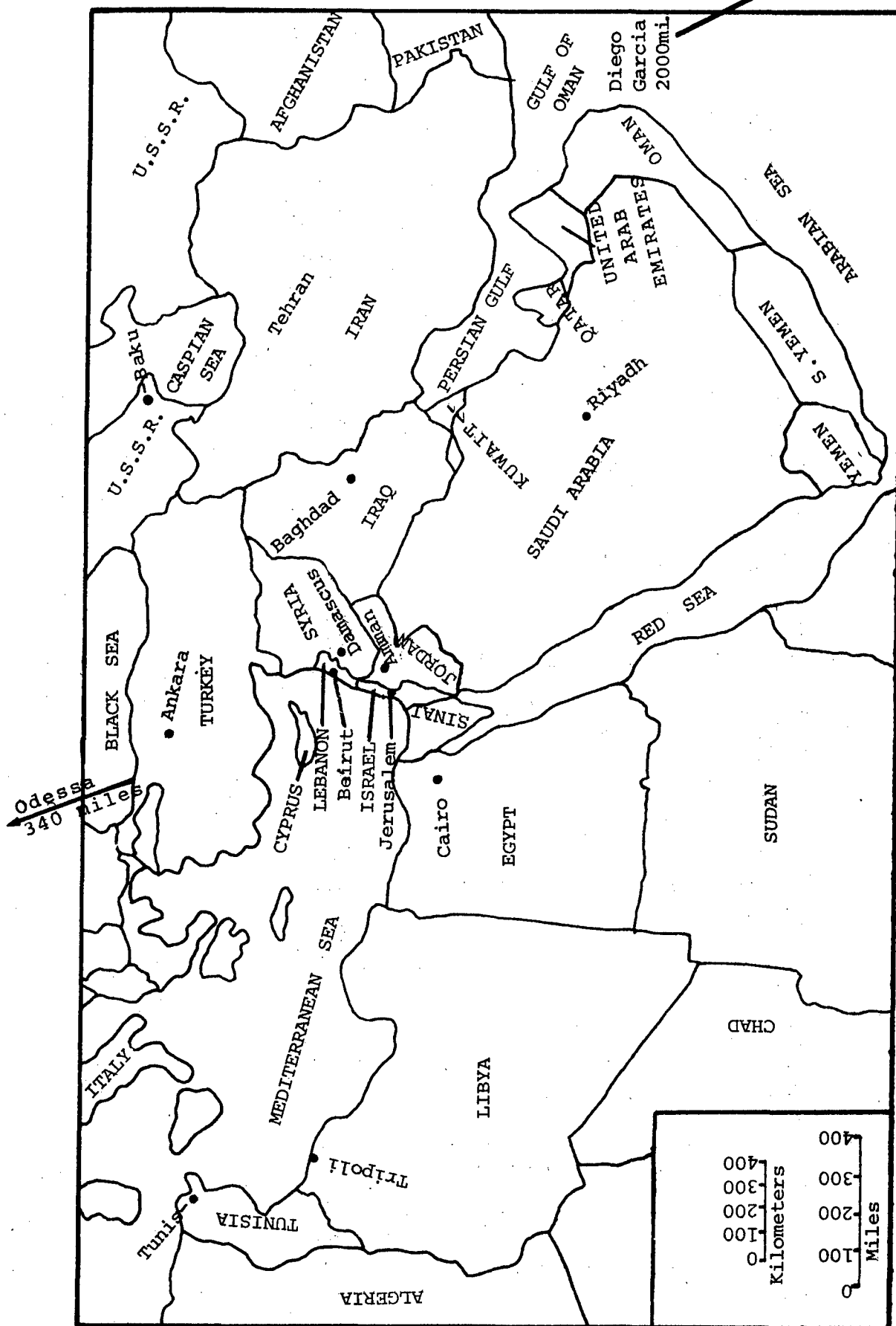
development--perhaps assisted by purchase of outside personnel--of rudimentary cruise missiles be precluded.

Depending on the combination of specific target and available delivery system, adequate range could on occasion be a problem. For example, as the following map indicates, an Israeli strike against Baku or Odessa could strain the F-4's combat radius, though not its one-way capability. And, CONUS would be vulnerable to less conventional delivery means, e.g., whether freighters with naval attack missiles or clandestinely placed weapons. But for most intra-regional disputes the available systems are likely to be sufficient.

Whether the attacker was a regional rival, not a superpower, in some instances could affect these new nuclear forces' survivability. For example, though probably able to survive a first strike by an Arab enemy, an Israeli nuclear force based on Jericho missiles in hardened silos most probably would be vulnerable to a Soviet first-strike. More often, however, these new nuclear forces would be vulnerable to preemption by both superpowers and local rivals. That is, a strategic balance characterized by mutual vulnerability is a more likely outcome of Iraqi-Iranian, Iraqi-Syrian, and other nuclearization than would be one of mutually invulnerable nuclear forces.

One final parameter warrants special emphasis because of the range of problems that follow from it. As discussed fully elsewhere, the interaction of technical and political factors makes it likely that many of these new nuclear forces would lack adequate protection against unauthorized seizure and use.⁸ More sophisticated PAL techniques are likely to prove

⁸For elaboration see Lewis A. Dunn, "Military Politics, Nuclear Proliferation, and the 'Nuclear Coup d'Etat'," Journal of Strategic Studies (forthcoming).



SOURCE: RAND McNALLY ILLUSTRATED ATLAS OF THE MIDDLE EAST (RAND McNALLY, 1975)

beyond the technical capabilities of most of the countries in question. And the political-security cost of less sophisticated measures--e.g., storing warheads and planes fifty miles from each other--in terms of decreased military readiness and operational efficiency in all probability would prove unacceptable to countries perceiving their security environment to be hostile. Further, nearly all of these Middle East and Persian Gulf countries are politically unstable, often with long histories of military intervention in their domestic politics. Even in those that have not recently experienced a coup d'etat, the military's reliability is questionable and its abstinence from politics based not on acceptance of the principle of civilian supremacy but on its own convenience. Thus unable to procure more sophisticated protection or to rely on less sophisticated protection, given that political milieu, there may be a high risk of unauthorized seizure and use, both by rebellious officers themselves and by other subnational groups.

Propositions for Discussion

Reading Wittman's political analysis with the preceding in mind, what are the implications of Middle East and Persian Gulf nuclearization for United States security interests and posture? To facilitate the conference discussion of that question and by way of conclusion, a series of tentative propositions triggered by the Wittman paper follow:

- 1) In a nuclearized Persian Gulf protection of significant United States interests in Saudi Arabian oil supply may require the capability to deter or defeat and defuse nuclear attack or nuclear-backed conventional military threats by Iraq against Saudi Arabia. That in turn might require any or all of the following:
 - a) continuing and detailed intelligence about Iraq's nuclear force
 - b) a covert or para-military capability to disarm or disable that Iraqi nuclear force

- c) a disarming first-strike capability
- d) availability of air mobile air defense for key sites in Saudi Arabia
- e) new overseas operating bases closer to the Gulf
- f) intervention forces prepared to operate in a nuclear environment

(In the event of an Iranian-Iraqi confrontation, the above military capabilities again would be useful.)

- 2) An alternative means of supporting United States interests in Saudi Arabian independence vis-a-vis Iraq could be to rely on Iran as a proxy. That probably would require, however, acquiescence to if not support for Iran's emerging nuclear-weapon capability. But that would run counter to efforts to influence proliferation's scope and pace; it also could lead to a confrontation with the Soviet Union if the Soviets opposed Iranian nuclear-weapon acquisition. These risks may be unacceptable.
- 3) Given poor command and control of their respective nuclear forces, internal unrest in Iraq and Iran well might result in nuclear separatist struggles. Both in Kurdistan and Baluchistan virtually autonomous mini-states might arise, deterring by their possession of stolen nuclear weapons any action to control them. The prospect of such nuclearized domestic conflict is one compelling reason for providing assistance to deal with the unauthorized access problem.
- 4) Not only governments--as Wittman suggests--but also radical minority groups within these unstable countries could use nuclear threats in an attempt to force the United States to pressure Israel for "concessions." Their access to nuclear weapons would be facilitated by poor command and control over local nuclear forces or by the growth of nuclear black marketeering. Once in possession of nuclear weapons, they, too, for example, might threaten Saudi oil; but direct threats to overseas United States bases, naval forces, and friends or to CONUS also could be attractive. Preventing their gray or black market access to nuclear weapons would entail careful monitoring for the signs of such illicit activity and a capability to respond with appropriate political, police, or military action. In turn, given the likely difficulties of closing off unauthorized access to the United States, covert intelligence on such groups may be a critical warning factor allowing concentration of monitoring resources.
- 5) To a radical rejectionist state with nuclear weapons, permitting a group such as the PLO to seize one or more of its nuclear weapons might appear attractive. With assistance on command and control, it

could be easier to hold such a government responsible for adequate security against unauthorized access. Means of selectively retaliating for such assistance to radical sub-national nuclear-armed groups also need identification. One possibility would be a highly discriminatory non-nuclear strike capability vis-a-vis high value targets.

- 6) Israeli preemptive nuclear use along the lines Wittman foresees would place great pressures on the Soviets to "do something." United States discussions with the Soviets on responses to such nuclear use could significantly help to reduce the risk of a direct Soviet-American confrontation in this situation.
- 7) The future availability of more sophisticated delivery vehicles might intensify threats to United States intervention forces attempting to aid friends or allies in the Middle East or Persian Gulf. But restraints on conventional arms transfers may prove unable to manage that problem. Thus, it is important to pay attention to possible synergistic effects between nuclear-weapon acquisition and acquisition of new conventional warfare technologies.
- 8) Though some propose that the United States respond to regional nuclearization by decoupling, the costs of doing so in the Middle East and Persian Gulf appear high. Adapted pursuit of United States interests could be the least bad alternative. Hence, thinking about operations in a nuclear setting is important as is considering measures for reducing the risk or consequences of Soviet-American confrontation.
- 9) The high degree of Israeli societal vulnerability to a nuclear attack that Wittman's paper notes could be typical of many new proliferators. Moreover, post-attack recovery is likely to depend heavily upon prompt outside assistance. That in turn could require detailed contingency planning, if not new operating capabilities.
- 10) Within a nuclearized Middle East-Persian Gulf of the 1980s some countries would attempt to acquire a capability to threaten the Soviet homeland. Others would want to be able to threaten CONUS. But there would be an important asymmetry: the former would require only military aircraft with sufficient range; the latter most likely could be accomplished only with unconventional means of delivery. In neither case, however, would investment in BMD appear a useful countermeasure.
- 11) The magnitude of local nuclear threats to neighbors or threats to United States intervention capabilities, of course, would vary from case to case and over time. Even assuming that these countries have limited capabilities in the late 1980s, however, it appears that the continuing growth of their technical capabilities could

lead to a significantly augmented threat by the early 1990s. Moreover, that assumption of limited capabilities may prove wrong. In any case, even those limited capabilities, if unopposed, could impact significantly on United States freedom of action or require adjustments to existing operating procedures and facilities.

APPENDIX

Table I sources: "World List of Nuclear Power Plants," Nuclear News, August, 1977; Nucleonics Week; John R. Lamarsh, "Dedicated Facilities for the Production of Nuclear Weapons in Small and/or Developing Nations" and "Level II Dedicated Facilities," in Nuclear Proliferation and Safeguards, Appendix Volume II, Part Two, Appendix VI-A and Appendix VI-B (Washington, D.C.: U.S. Congress, Office of Technology Assessment, 1977); Albert Wohlstetter, et al., Moving Towards Life in a Nuclear Armed World, Pan Heuristics, April 22, 1976; and Ted Greenwood, George W. Rathjens, and Jack Ruina, Nuclear Power and Weapons Proliferation, Adelphi Paper No. 130 (London: The International Institute for Strategic Studies, 1977).

U.S. MILITARY INTERVENTION IN A PROLIFERATED
NUCLEAR WEAPONS ENVIRONMENT

by

William Schneider, Jr.

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U.S. MILITARY INTERVENTION IN A PROLIFERATED
NUCLEAR WEAPONS ENVIRONMENT

If we had nuclear weapons in 1971, we would have blown the Enterprise out of the Bay of Bengal.

Indian Government Official
(September 1972)

1. Introduction

For the entire period of its existence, the United States has emphasized a defense policy and posture which provided for the support of U.S. foreign policy objectives through the use of foreign expeditionary forces.¹ The deployment of U.S. forces abroad has been carried out to support a wide variety of foreign policy objectives, from the protection of U.S. citizens and property abroad to large-scale intervention operations to support an allied nation under attack by a hostile power. Not only have the purposes for which foreign intervention has been initiated varied widely, but the nature and scope of that intervention has also fluctuated significantly. Intervention often has constituted as little as the providing of a military presence through the use of a naval task force (and more recently tactical and even strategic air forces) to the deployment of large-scale ground and

¹ See Hearings before the Committee on Foreign Relations, U.S. Senate on the War Powers Act, 92nd Congress. The U.S. has initiated a significant foreign military intervention nearly two-hundred times since 1789. Foreign intervention has been preferred to a territorial defense posture because the former could be carried out with a small standing professional armed force, whereas a territorial defense would require a large standing army. A hostile characterization of the motives for recent (1945-68) U.S. military intervention is contained in R.J. Barnet, Intervention and Revolution: America's Confrontation with Insurgent Movements Around the World (New York: NAL, 1968).

air forces. Such has been the case in the Philippines insurrection in 1900, the Korean conflict in 1950-53, and the Vietnam conflict, 1961-1975.²

In contrast to the fundamental character of U.S. wartime objectives under circumstances of a declared war (e.g., "unconditional surrender"), U.S. military intervention has been extremely limited in both its political aims and the period of time over which forces are deployed. In principle, U.S. military intervention has sought to deploy a small, but effective force that can provide a brief, but overpowering, military presence at a crucial period of time in support of U.S. diplomatic objectives. As a consequence, the United States has maintained forward deployed Naval forces for much of its history, normally containing a complement of Marine forces to provide a direct U.S. presence ashore. Indeed, it is a distinguishing characteristic of U.S. forces that more than 25 percent of U.S. ground force assets are maintained in a posture suitable for intervention purposes.³ This posture has persisted despite limitations being imposed on the ability of the President to deploy forces for intervention purposes for protracted periods without the explicit consent of the Congress.⁴ This reflects the

²The 1962 Cuban missile crisis used aircraft of the USAF Strategic Air Command to fly around the periphery of the Soviet Union to provide visible evidence of a strategic nuclear "presence."

³Three Marine Divisions (and their associated air wings) and two Army divisions (the 82nd Airborne and 101st Air Mobile) are kept in a state of readiness for the intervention mission. To this one may add elements of the USAF as well as the 6th Air Cavalry brigade (although Corps-level support is required) and specialized units from all services.

⁴The War Powers Act (1972) was specifically passed for this purpose as a consequence of Congressional dissatisfaction with the conduct of the Vietnam conflict. The Act was not used to prevent U.S. operations in Vietnam, however, traditional denial of authority to expend funds in an Appropriation Measure was used for this purpose. A similar prohibition by the Congress on U.S. intervention in Angola was used in 1975.

continuing consensus within the U.S. political leadership that an intervention capability is an essential component of the U.S. foreign policy posture.

Since World War II, the United States has deployed its forces for the purposes of influencing the behavior of both nuclear and non-nuclear states, although it has never been compelled to have its forces engage a nuclear weapon state. The more typical case, as is well-known, involves the deployment of U.S. forces in a relatively benign environment where locally deployed U.S. forces can have a major impact on the outcome of a local conflict without incurring a substantial risk of either a protracted conflict or the suffering of heavy casualties to achieve the objective desired. For example, in recent years, military organizations of up to division size have been deployed without incurring substantial casualties as was the case with the U.S. deployment of the 82nd Airborne Division to the Dominican Republic in 1965.

The notion of intervening in an environment where the use of nuclear weapons may be threatened or carried out is not an entirely new environment for U.S. intervention forces, but it necessarily produces an unanticipated complication for conducting intervention operations. In the past, intervention was feasible in a relatively benign environment, or at least one in which the organic capability of U.S. intervention units (e.g., a Marine Battalion Landing Team) was sufficient to cope with the local threat. Nuclear weapons provide several complicating factors that may have a dramatic influence on the scope and character of future U.S. intervention if nuclear proliferation is substantial either in terms of the number of states with nuclear weapons, or in the number of weapons under the control of a single proliferator. Nuclear weapons may lead to a complex form of

polycentrism where numerous regional power centers may evolve around a local nuclear weapon state with a serious local delivery capability. The emergence of local "superpowers" may alter the contours of the local alliance structure in such a way that U.S. intervention against a non-nuclear weapon state may risk the intervention of a local nuclear weapon state as the result of a shift in alliances or claimed "responsibility" by a local nuclear weapon state.

The U.S. has a formidable investment in capital assets to support its intervention operations. The most conspicuous are large Naval vessels associated with a carrier task force, and 304 over-sized and out-sized military transport aircraft (C-5A and C-141s). The need to deploy a force capable of sustaining local superiority in a brief period of time has dictated a requirement for the forward deployment of Naval carrier task forces and their associated escorts as well as a heavy investment in military transport aircraft to provide for the swift redeployment of U.S. ground forces to a local theater where intervention is required. While these forces are well prepared to cope with the problems that typically threaten the viability of an intervention force such as the need to breach and prepare defenses, provide local air defense and related military measures, a different approach may be required if the employment of nuclear weapons, or their use is threatened by other states seeking to inhibit U.S. intervention in a local conflict.

Potential areas for U.S. intervention over the next one to two decades may center on the Indian Ocean littoral, Central and South America, and East Asia. The proliferation of nuclear weapons, and suitable delivery systems whether of the aerodynamic variety (e.g., manned aircraft, cruise

missiles, or free rockets) or ballistic missiles, one can anticipate that a future U.S. intervention in such an environment would have to be substantially changed if a high level of confidence in the success of the intervention is to be maintained.

This paper will review several dimensions of the problem of military intervention in a nuclear weapons environment in an attempt to derive policy implications for future defense planning. The paper will review current U.S. intervention assets, the interaction of future military technology with the problem of intervention, and to summarize the defense planning implications which derive from an understanding of the current and projected U.S. intervention capability in a nuclear environment.

2. U.S. Military Intervention Assets

There are six principal components to the U.S. military intervention capability. While each of these components are separately organized, at least two of the elements are normally employed together in an intervention operation. The six categories are as follows:

- a. Two U.S. airborne divisions, the 82nd Airborne Division and the 101st Air Mobile Division. A separate unit, the 6th Air Cavalry Brigade, is also prepared for intervention operations, but requires corps level support in order to be so employed.
- b. Three Marine Divisions and their associated air wings.
- c. The U.S. Strategic Air Lift composed of 70 C5A aircraft and 234 C-141 aircraft.
- d. The U.S. Navy Carrier Task Force.
- e. U.S. Tactical Air Forces.
- f. Specialized forces including U.S. Navy SEALs and U.S. Army Special Forces and Rangers, as well as several other small-scale military organizations.

a. U.S. Airborne Divisions

The U.S. Army force structure contains two airborne divisions, one is a traditional parachute division, the 82nd Airborne Division while the other was converted from the conventional parachute division to an air mobile configuration by the addition of a large number of transport helicopters. While both divisions are similarly organized, the air mobile division is considerably larger, containing 17,900 troops compared to only 15,200 troops for the 82nd Airborne Division. Both divisions are "light" in that they employ neither armored vehicles or medium or heavy artillery. The two divisions each contain nine 105 millimeter artillery batteries (employing the M-102 air dropable howitzer) and approximately 400 anti-tank missile launchers.⁵ This fact increases their mobility, but inhibits their effectiveness against well organized defenses.

Although the 101st Air Mobile Division is designed to be entirely inserted into a combat area by its organic helicopters while the 82nd Airborne Division is to be inserted by parachute, both divisions have similar missions in an intervention mode. These missions include: (1) to seize airfields and airheads up to several thousand miles from CONUS; (2) conduct air mobile raids deep into enemy held territory; (3) conduct a wide area surveillance and denial operations; (4) launch assaults in towns, forests, mountainous areas or other areas where the conduct of armored operations is extremely difficult.⁶

⁵Both the TOW and Dragon anti-tank missiles are employed. The 82nd Division has 372 launchers in its TOE while the 101st Division has 417 launchers assigned to it.

⁶Current doctrine on the use of airborne/airmobile forces is contained in U.S. Department of the Army, Field Manual No. 100-5 (July 1976) pp. 4-7.

Because of the scale of operations associated with the employment of airborne and air mobile units, there has, in general, been a tendency to employ these organizations less frequently than other elements of the U.S. force structure. Indeed, of 115 incidents involving either the display or employment of U.S. ground forces since World War II (excluding the Korean and Vietnamese conflicts), only 15 have involved the deployment of air-lifted U.S. ground forces.⁷ In addition, the relatively limited use of air-lifted ground forces reflects the fact that 85 percent of the world's nations are accessible by sea making it possible to deploy an integrated ground and tactical air force in the region through the employment of Naval and Marine forces rather than reliance on inserted ground forces to provide the military power needed to support intervention objectives.

b. Strategic Airlift

The U.S. currently has a very substantial strategic airlift capability in its C-5A and C-141 heavy logistics aircraft. In addition, the Civil Reserve Air Fleet (CRAF) program will provide additional cargo and troop carrying capacity from the civilian aircraft sector in an emergency. The convertible Air Tanker-Cargo Aircraft (ATCA) will when completed further enhance U.S. strategic airlift to handle oversized, though not outsized cargo. U.S. strategic airlift can complement or supplement the intervention of not only U.S. ground forces currently configured for the intervention role, but also other U.S. combat units or elements of allied armed forces.

⁷B.M. Blechman and S.S. Kaplan, The Use of Armed Forces as a Political Instrument (Washington: The Brookings Institution, 1977), pp. IV-8. A useful review of U.S. power projection capability in support of intervention operations is D.S. Zakheim, U.S. Projection Forces: Requirements, Scenarios, and Options, "Budget Issue Paper for Fiscal Year 1979" (Washington: Congressional Budget Office, April 1978).

The use of strategic airlift aircraft creates special problems for intervention operations because of their acute vulnerability to air attack. Local air superiority is required as is line-of-communication (LOC) security. Problems associated with air base and LOC security has reduced the number of intervention scenarios in the past two decades where strategic airlift has been an important factor in the effectiveness of U.S. intervention operations. Strategic airlift is necessary however under almost any circumstance that imagines the rapid deployment of large numbers of troops. The combined "seating" capacity of the U.S. strategic airlift force and its associated CRAF units could redeploy personnel from the continental United States with two or more divisions in less than a weeks time.

c. Marine Divisions and Air Wings

The three U.S. Marine Divisions and air wings are maintained at a high level of readiness, and constitute the prime air-ground intervention force employed by the United States. Although no Marine units of a size greater than a Marine Amphibious Force (MAF), a division plus an associated air wing, have been simultaneously organized or deployed since the end of World War II, Marine forces of under two brigades have been commonly employed, and a Marine amphibious force of battalion size is deployed with each U.S. Fleet.

Marine forces, unlike their Army airborne/airmobile counterparts are more heavily equipped. A Marine division contains a total of 84 artillery tubes including the medium 155 millimeter and heavy 8-inch (203 millimeter) howitzer as well as the light 105 millimeter howitzer. In addition, 60 (M-113) armored personnel carriers and 70 tanks (the M-60A1) are organic

to the division. The integration of the Marine air wing into ground force operations provides a highly effective intervention force, although the endurance of the Marine unit may be more limited than its Army counterpart which is organized to fight indefinitely.⁸ In addition, the effectiveness of Marine Corps operations in an intervention mode depend heavily upon Naval support. Local air superiority and Naval gun fire support is normally required of the Naval task force supporting Marine operations ashore.

d. Naval Forces

Naval forces are the most flexible means of projecting U.S. power ashore. Naval forces can be easily brought to bear without prior assembly, particularly when forward deployed. In addition, they can be withdrawn quickly because they are not encumbered with a requirement to establish a shore-based infrastructure to support combat operations. The projection of this power has, in the past three decades, been almost exclusively identified with the ability of Naval forces to project tactical air power ashore. The pursuit of "gun boat diplomacy" in the absence of tactical air power has long been implausible under circumstances where even the modestly equipped tactical air force of an adversary could pose a substantial threat to the survival of a Naval task force. There are thirteen carriers currently deployed, although this figure will be reduced to twelve when the U.S.S. Coral Sea is retired.

⁸ Army divisions are organized on an individual replacement rather than unit replacement basis with a large supporting infrastructure (e.g., a division slice is approximately 49,000 in the current force structure). The large personnel "overhead" associated with Marine air wings allows the Marine Corps a substantially smaller supporting structure for its ground forces than equivalent Army units, hence their diminished endurance. For a discussion of the significance of force structure choices, see S.L. Canby, The Alliance and Europe, Part IV (London: International Institute for Strategic Studies, 1974).

Illustrative of the tactical air capability of a Naval carrier task force is shown in Figure 1 displayed below. The tactical aircraft deployed on a base line conventionally fired carrier (e.g., CVA-59, Forrestal Class attack carrier) can deploy 75 aircraft. The larger Nimitz Class nuclear powered aircraft can deploy nearly 100 aircraft. The carrier task force in turn, requires escort vessels, typically six to eight cruisers and destroyers (although only four are required in an all nuclear task force) as well as underway replenishment vessels to sustain operations at sea. The latter in turn require escorts if their entry into the operational area of the carrier task force requires them to traverse seas within range of land-based aircraft of a hostile nation.

Because of the substantial attack capability of a carrier task force, and the worldwide assumption that the carrier task force is capable of conducting offensive nuclear operations against shore as well as sea targets, the task force has become the most commonly used component of U.S. power projection and presence. Since the end of World War II, the Navy has participated in 80 percent of all crises involved in a show of U.S. military force.⁹

e. Tactical Air Forces

U.S. tactical air forces have been intermittently employed in support of U.S. intervention since World War II. Tactical air forces require a local basing structure in order to support operations at peak levels of efficiency. However, in-flight refueling has made it possible for tactical

⁹Ibid., pp. IV-1-3.

Figure 1

TACTICAL AIRCRAFT ASSIGNED TO A TYPICAL MID-SIZED
ATTACK CARRIER (CVA)

(Non-nuclear)

<u>Type</u>	<u>Mission</u>	<u>Number</u>
A-7	Light Attack	24
A-6	Medium Attack	12
F-4/F-14A	Fighter/Interceptor	24
RA-5	Reconnaissance	3
EA-6	Electronic Warfare	4
E-2	Early Warning	4
KA-6	Inflight Refueling	<u>4</u>
	Total	75 ^a

^aNuclear powered carriers (CVAN/CVN) will contain additional aircraft and helicopters for the anti-submarine warfare mission.

SOURCE: Jane's Fighting Ships, 1975-76.

air forces to be deployed at long ranges under special circumstances in a very brief period of time.¹⁰ A combination of Army airborne/airmobile forces to seize terrain for an air base provide a potential basis for securing a major role for tactical air force units in a large-scale intervention.

f. Specialized Forces

The creation or enlargement of specialized forces such as the Navy's SEAL (sea-air-land) units, the Army's Special Forces (Airborne) and Ranger detachments during the 1960s left the U.S. with a specialized limited intervention force which might be well adapted to selected scenarios. SEAL units have been assigned a major role in dealing with terrorist activities directed against U.S. diplomatic installations while U.S. Army Special Forces (Airborne) units have a broader anti-terrorist mandate from the U.S. government. Army Ranger units are deployed in the continental United States at a high state of readiness, and can function along the lines of traditional airborne/airmobile light infantry units for intervention purposes as well. Some analysts have suggested that specialized forces are a more sustainable posture for a large armed force to sustain a capability for modest levels of sophisticated forms of military intervention than attempting to train larger general purpose military organizations to meet a wide range of intervention contingencies.

¹⁰ The Israeli Entebbe (Uganda) raid in 1976 using C-130 aircraft far beyond its operational range (extended by refueling in flight) illustrates the potential of tactical air forces if they are capable of in-flight refueling under some circumstances.

3. The Effect of the Evolution of Military Technology on the U.S. Intervention Capability

Reduced to its simplest terms, the most important reason why nuclear proliferation may become a crucial public policy concern over the next decade is that the evolution of science and engineering has reduced the cost of the acquisition of nuclear weapons to the point where an ever larger set of nations will possess the resources to support a nuclear weapons program. Many of the trends that we have witnessed with respect to the evolution of nuclear weapons technology applies with equal or greater force to the technology associated with the development, production, and deployment of advanced delivery systems.

New weapon systems may be either indigenously developed by new nuclear weapon states, or may receive them as an element of a technology transfer program from more advanced industrial nations. The Soviet Union has already transferred advanced tactical aircraft, cruise missiles, and free rockets (i.e., FROG series) to its allies. The United States has also transferred advanced weapon systems including the F-14 interceptor and the E-3A airborne warning and control system to Iran, and will deploy the F-15 aircraft to Saudi Arabia. From the perspective of the impact of the evolution of future military technology on the nuclear proliferation problem, one can only speculate on the technology that will become available by way of outright transfers of delivery systems in the 1980s. There are, of course, a wide range of motivations governing the transfer of advanced systems to allied or friendly nations unrelated to nuclear proliferation concerns, but the potential influence on the effectiveness of a future proliferator remains.

A more troublesome problem relates to the dissemination of advanced technology acquired through commercial or industrial cooperation that may

permit potential nuclear weapon states to develop their own delivery systems based upon component technologies acquired from the advanced industrial nations. It is well-known that the People's Republic of China acquired its technology for medium-range ballistic missiles and medium-range bomber aircraft from Soviet technology of the mid- and late 1950s. Israel has acquired an indigenous capability to produce a high performance tactical aircraft based upon technology acquired from the U.S., particularly the PHANTOM aircraft.

The rapid evolution of cruise missile technology presents a number of opportunities to facilitate the proliferation of nuclear weapons that serves to underscore the observation about the declining cost of the delivery of nuclear weapons.¹¹ Development of the cruise missile in the United States has evolved very rapidly to the point where delivery accuracies of 30 meters or less at ranges in excess of 2,000 miles are entirely feasible. The advanced technology that has supported the U.S. cruise missile program, particularly its terrain comparison (TERCOM) guidance system, miniature propulsion system, and efficient aerodynamic design has obscured the long history of military interests in cruise missiles.¹² Cruise missiles, even

¹¹ See, for example, J.F. Digby, Precision Guided Weapons, Adelphi Papers No. 118 (London, IISS, Summer, 1975). The author anticipates that engineering advances will ultimately lead to a circumstance where delivery accuracy is independent of range.

¹² The rapid pace of recent developments in precision weapon delivery has tended to obscure the fact that there is a thirty-year history of relatively effective though underutilized precision guided weapons. See, for example, V.K. Zworyken, "Flying Torpedo With an Electric Eye" in Television, Volume IV (1942-46), A.N. Goldsmith, et al., eds., RCA Laboratories Division, Princeton, N.J., 1947; Sir Charles Webster and N. Franklin, "The Dam Raid and the Development of Precision Bombing at Night," The Strategic Air Offensive, Volume II (London, HMSO, 1961); H.H. Spencer, "Azon and Razon," and "Television," National Defense Research Committee, Guided Missiles and Techniques (Technical Report on Division 5), Volume I (Summary), (Washington: Office of Scientific Research and Development, 1946); and "Azon Does a Job in Burma," Radar, 20 November, 1945, pp. 26-7.

of primitive design by current standards, can be highly effective delivery systems.

For potential nuclear weapons proliferators who become capable of deploying ten to two hundred fission warheads may find the development of short to medium-range cruise missiles (200 to 1,000 kilometers) feasible by the 1980s with widely available propulsion and inertial guidance technology. The technology base for this development is a plausible consequence of the widely disseminated knowledge of commercial and military aircraft production technology.

Today, Israel, Argentina, Brazil, and South Africa are producing high performance aircraft that could serve as the industrial infrastructure for nuclear weapon delivery systems in the 1980s. The ability of these nations to produce delivery systems with widely available commercial technology emphasizes the extent to which technical knowledge necessary to produce suitable delivery systems for nuclear weapons has been diffused within the scientific and industrial communities of the industrialized nations of the world. The export-oriented nature of the aerospace industry insures a loss of control of these markets by the traditional aerospace oriented nations of the industrial world, and hence of the ability to limit proliferation by controlling access to delivery systems.

A further concern relating to technological evolution is the possibility that modest scientific and engineering advances affecting the understanding of the design of fission weapons by new nuclear weapons states in the 1980s might result in a major increase in the efficiency (yield to weight ratio) and reduction in the volume of nuclear weapons, thereby substantially diminishing the delivery system burden that might otherwise have to be borne if heavy, low-yield nuclear weapons are the only ones available. Substantial

gains in the design of efficient fission weapons might increase the chances that ballistic missile technology can be employed, particularly if important technological advance should be made in low cost propulsion systems for placing civilian payloads into orbit is developed, and becomes widely distributed. The interaction of improvements in nuclear weapon design and the increasing availability of the technology of delivery systems of both an aerodynamic and ballistic variety may have an important impact on the way in which the nuclear proliferation problem evolves. Although the issue of the role in which future technology may play in the evolution of the nuclear weapons proliferation problem is a vast subject matter in itself, it appears clear from a review of the contemporary literature on military technology that effective delivery systems will not be an obstacle to a potential nuclear weapon state in acquiring a modest military capability over the next two decades. To be sure, high quality intercontinental systems may be beyond the grasp of virtually all of the currently industrializing nations, delivery systems capable of reaching major regional targets are an almost certain development quite apart from efforts by the industrial nations to control access to advanced delivery system technology.

4. Categories of Intervention in a Nuclear Weapons Environment

The manner in which the United States may choose to intervene in future circumstances where there exists a possibility that nuclear weapons may be employed against U.S. intervention forces is a difficult and complex subject to address because of its scenario dependence. The U.S. has historically chosen to intervene frequently in local disputes in support of U.S. foreign policy objectives. As discussed earlier, this intervention has involved a wide variety of forms and force levels against non-nuclear states. The

threat of intervention has been made against nuclear weapon states as well although, of course, intervention of a military nature has never been taken directly by the United States against any nuclear weapon state.¹³ Rather than attempt to sketch scenarios of U.S. military intervention under circumstances where nuclear weapons might be employed by an adversary state, this paper will seek only to identify some pertinent categories where nuclear weapons employment may be a major issue in the character and success of U.S. intervention operations. This list should be regarded as illustrative rather than exhaustive.

a. Intervention Against a Nuclear State

Under severe circumstances of very substantial nuclear proliferation by fifteen to thirty nations, it is likely that, should the United States be motivated to intervene in a local or regional dispute, it would be compelled to intervene against a state capable of delivering at least a modest number (10) of nuclear weapons against U.S. intervention forces. There are a number of opportunities in which nuclear weapons could be used by such a state. From a military perspective, they could be employed directly against engaged U.S. forces either ashore, or the naval task force supporting the intervention force. Employed in this manner, nuclear weapons might have their greatest and most dramatic military effect, in many circumstances, exacting substantial casualties against U.S forces particularly if U.S. forces

¹³The few cases identified since 1950 where the U.S. threatened to employ nuclear weapons against the U.S.S.R. are the only examples. One may wish to exclude such cases from consideration as threatened U.S. "intervention," placing superpowers in a different category entirely. Nevertheless, Soviet-American experience may provide useful guides to the formulating of the U.S. diplomatic posture in the event intervention is contemplated against less powerful nuclear states.

were unprepared for the employment of nuclear weapons. Such circumstances could provide complicated political-military problems for the United States concerning the mode of response. More likely, the planning which precedes the decision to intervene in a particular region or nation, would almost certainly be compelled to take into account the character of the U.S. response should nuclear weapons be employed against American forces.

If a nuclear weapon state chose instead to employ nuclear weapons only against supporting U.S. forces, for example, a carrier task force supporting the deployment of Marine forces ashore, the military effect could be substantial, particularly if the aircraft carrier itself were heavily damaged or destroyed. One can further envisage a nuclear weapon state restricting its attacks to the sea lines of communication supporting engaged forces as a form of a "demonstration" attack against U.S. military forces without engaging U.S. military forces in combat operations. The use of nuclear weapons against a U.S. "presence" including "demonstration" detonations to emphasize resolve could fall within the realm of plausible nuclear weapon state responses.

b. The Invocation of Regional Interest by a Nuclear Weapon State

A more complex intervention problem is posed by circumstances where a nuclear weapon state asserts a role of responsibility for security in a region, even when U.S. intervention is not directed at a nuclear weapon state. For example, should India assume a role of the guarantor of security in the South Asian region, it would be plausible to expect that India would assert a right to deny the United States the ability to intervene in a neighboring country, for example, Bangladesh, and reinforce this assertion of authority with the threat to employ nuclear weapons against the intervention

force. Such a circumstance obtains a note of plausibility when there are a small number of nuclear weapons proliferators in regions and where Soviet-American conflict is not intense. Under such circumstances, the local state with nuclear weapons may be able to fill a regional power vacuum with the benefits of an incipient regional "superpower" posture as a consequence of its possession of a nuclear weapons delivery capability.

Such a circumstance has not yet arisen directly, but the hint of such a problem has been suggested by the vociferous Indian reaction to the deployment of a carrier task force led by the USS Enterprise (CVAN-65) into the Bay of Bengal in December 1971. Although the ostensible dispute involved only India, Pakistan, and their respective claims to the region then known as East Pakistan, the United States sought to dissuade further escalation in the conflict in support of the deteriorating Pakistani military position in East Pakistan. India, asserting the inappropriateness of any American involvement in the Indian sub-Continent was unable to do more than protest. Should a similar crisis emerge with India, or any other state in similar circumstances when in possession of even a modest nuclear weapons capability, it is clear that some modifications in U.S. intervention behavior would be required to accommodate to such a development.

c. Employment of Nuclear Weapons by a Friendly or Allied State

A somewhat more bizarre, but nevertheless, plausible category in which the U.S. may find itself engaged when conducting intervention operations could occur under circumstances where there are a large number (fifteen to thirty) nuclear weapon states. Under circumstances where there are many nuclear weapons proliferators, it is at least plausible to suspect that the U.S. may maintain friendly or even an alliance relationship with such

a nation. The prospect of U.S. intervention in circumstances where a friendly or allied state employs nuclear weapons in support of mutual objectives (for example, the Israeli employment of a nuclear weapon against an Arab state under circumstances where the U.S. has intervened, however modestly, in support of Israel). While such a circumstance is far-fetched when there are few nuclear proliferators, and nuclear weapons inventories are held in token amounts, such a possibility cannot be ruled out if the U.S. is compelled to adopt to the painful circumstances of a proliferated nuclear weapons environment. Such possibilities raise obvious questions about the manner in which the U.S. will support alliances in future contingencies. The current preference for vague statements of mutual consultation may be compelled to give way to detailed and codified descriptions of circumstances under which support will and will not be forthcoming in future treaties.

It would be premature to forecast that U.S. intervention operations would have to be curtailed in a international environment where nuclear weapons were widely dispersed among a large number of nation-states, but clearly the diffusion of nuclear weapons creates both political and military problems for the character of U.S. intervention. The subsequent section will discuss some of the implications for military planning, but it appears likely that the problem of conducting military operations under these circumstances require a rethinking of the appropriate diplomatic posture for the United States to maintain when it seeks to support a foreign expeditionary force.

5. Implications for Defense Planning

The most compelling military problem facing defense planners under circumstances where nuclear weapons have proliferated is the requirement to

cope with the possibility that nuclear weapons will be employed against U.S. forces. As has been noted earlier, U.S. intervention forces are typically small units, usually two brigades or less and are lightly armed. Air support is provided by a carrier task force, well equipped to defend itself while supporting shore-based operations in a non-nuclear environment, but untested in an environment where even a small number of nuclear weapons directed against the task force could be employed. The need of forces to concentrate to obtain their effectiveness in conventional operations is the very characteristic which insures their vulnerability if nuclear weapons are employed.

a. Suppression of Nuclear Delivery Systems

A requirement that appears to be a logical derivation of circumstances where nuclear weapons may be employed against U.S. forces is the need to suppress possible nuclear weapons delivery systems as the highest priority associated with the conduct of intervention operations. Such a circumstance may, however, require a larger scale intervention than might have otherwise been required, but it may be the only means available to assure that nuclear weapons are not directed at an otherwise vulnerable U.S. intervention force.

b. Active Defense Measures

With the exception of "demonstration" operations conducted against the Soviet Union during intense crises, most U.S. intervention operations have been conducted in a environment where air superiority could be effortlessly obtained if indeed it was ever challenged. In a proliferated nuclear weapons environment, the most likely delivery systems employed by proliferators are likely to be aerodynamic systems. As a consequence, an increased emphasis on high-grade air defense may be necessary. Highly effective air defense

systems may be a necessary component of all U.S. intervention forces, no matter how small the unit so deployed is. Similarly, the defense of high-value naval targets may require a much heavier emphasis on active defense than has heretofore obtained. The long delays associated with the deployment of the AEGIS air defense system with the active fleet suggests low priority that has been attached to air defense systems despite the ten-year old warning given by the sinking of the Israeli destroyer, Elat, by a Soviet-made Styx cruise missile in 1967.

c. Force Structure

There are undoubted implications for the defense planning with respect to the question of designing an appropriate force structure. The concentration of relatively large units of, say, battalion size, may be inadvisable in a nuclear environment, and the deployment of smaller autonomous units may become necessary. The fortuitous development of distributed data systems and better intelligence may indeed make the deployment of a large number of autonomous units far more feasible from a command and control perspective than it has been in the past.

Changes in unit organization will also be necessary in an environment where nuclear weapons are likely to be employed. Billets associated with nuclear defense may be required as well as the need for greater mobility on the part of deployed forces to enable them to minimize their exposure to radiologically contaminated areas.

As noted earlier, an increased emphasis on organic air defense units in forces deployed in support of U.S. military intervention will also be necessary. The current emphasis for a small unit operation is for the defense against low altitude threats. Systems like the Vulcan, anti-aircraft

gun, and the Stinger surface-to-air missile may be compelled to give way to higher performance systems such as the Patriot surface-to-air missile and relatively "heavy" vehicular mounted anti-aircraft guns such as the proposed DIVADS (Division Air Defense System). Such a development obviously portends more complicated logistics problems for a U.S. intervention, but a major threat of nuclear weapons being delivered by aerodynamic systems may make a heavy investment in field air defense unavoidable in future U.S. intervention operations.

d. Tactics

An area in which there are highly important implications for defense planning related to tactical changes that would be necessary to accommodate hostile nuclear weapons employment or the possibility thereof. Greater emphasis may have to be placed on attacks on command and control systems and less on the destruction of local non-nuclear forces on the grounds that the coordination of nuclear delivery systems against U.S. forces would be difficult without a nuclear weapons state having its command and control apparatus intact.

Thorough initial strikes against all potential means of nuclear weapons delivery may be an essential feature of major intervention operations by U.S. forces. Such operations require the employment of surprise, a feature that is generally absent from U.S. intervention operations as they have normally been conducted in the past. Intervention has usually occurred as a process of escalation from diplomatic protests through "showing the flag"-type demonstrations to the eventual deployment of military forces. The slow escalation may need to be abandoned in order to ensure that nuclear weapons cannot be employed against U.S. forces when a decision is taken to intervene.

e. Training

Training for dual mode operations, although a serious component of U.S. operations in a bilateral Soviet-American conflict, is less emphasized in the training of specialized U.S. forces (such as U.S. Army Special Forces) and Marine Corps forces. The need to operate in a nuclear and conventional weapons environment may need to become an essential ingredient in the preparation of U.S. forces for the conduct of intervention operations in the future.

PROLIFERATION AND U.S. INTERVENTION FORCES

by

Norman Friedman

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PROLIFERATION AND U.S. INTERVENTION FORCES

Since 1945 the United States has found it necessary to intervene in the affairs of many Third World countries; and one important aspect of that intervention has often been the disparity between the military technology available to them and to the intervening forces. Even though in some cases, such as Korea and Vietnam, the Soviets were able to supply some modern weapons, on the whole U.S. forces had a decisive edge in sophistication. In particular, in contemplating intervention, the U.S. government had the feeling that it would have a relatively low cost compared to the war which really concerned it, i.e., war against the Soviets or against the Chinese. That this proved incorrect in Korea and in Vietnam does not alter the point: in both cases one might argue that the wars dragged out precisely because the United States pledged itself not to use all of the sophistication at its call.

The proliferation of nuclear weapons and indeed of sophisticated conventional weapons raises a new kind of question, for it may appear to a U.S. Administration at the outset that intervention will no longer be a simple military operation. In that case the United States may have to accept a shrinking freedom of action; or else it may have to reshape its forces to be able to fight far more intensive wars against minor powers. It seems useful, then, to ask at what point of sophistication a minor state becomes difficult to handle.

The key quality both of nuclear and of sophisticated conventional weapons is that they substitute unit quality of a mechanized sort for large numbers of trained personnel. In the past, sophisticated weapons have

required large numbers of supporting technicians, so that backward societies benefited little from them, and in fact were on the whole worse off in their presence. However, with the advent of very reliable electronics, small "smart weapons" are coming closer and closer to "wooden rounds" requiring little or no maintenance for their service lives: for example Israeli GABRIEL anti-ship missiles are said to require no maintenance at all during the two years they spend in their air-conditioned canisters, after which they must be shipped back to the factory for replacement. If indeed such weapons proliferate, then they present the possibility that rich but underdeveloped countries can achieve serious military power, including serious offensive power--a possibility previously denied them. In the past, although such states could buy very impressive arrays of hardware, they could not afford enough people to man and service them. The advent of truly automatic weaponry promises some change in this situation--if not at once, then in the foreseeable future.

Nuclear weapons hold out a similar promise. If the air force has little chance of mounting enough sorties to destroy an advancing enemy armored division, then one can at least hope that a single nuclear weapon can achieve a similar result--thinking not totally different from that which impels NATO towards tactical nuclear weapons. In fact, of course, a very few weapons are not likely to decide the issue of a large battle; but the key question is how well they may decide the issue of an intervention by the United States, an intervention which may well be mounted on less than emotional grounds, as a rational alternative to some other policy.

Hence the significance of nuclear and other sophisticated weapons in the hands of minor states. These states generally do not produce threats

which go to the existence of the United States, at least not immediately; but they do produce major problems, one of the solutions of which may be by force of arms. There is no question of a minor state, however armed, being able to resist the full force of U.S. military power: at the least, it would eventually exhaust the kind of arsenal it could afford. However, there is also no question of an all-out U.S. assault on any minor power. Not the least deterrent to such an assault is the requirement to reserve weapons and men for the possible war with the Soviets. It is ironic but inevitable that we cannot optimize our forces for the wars most likely to occur, i.e., those in the Third World, and must instead consider these secondary; of course the main reason why is that the central war with the Soviets is far more important, should it occur.

Moreover, a major consideration in intervention war is that to a great extent the forces used are those which would have to face the Soviets: they must be conserved. One of the less pleasant lessons of Vietnam was that serious and protracted engagement in the Third World, i.e., in a less than most vital scenario, pushes the military establishment towards weapons and forces less than optimal for central war. In this sense the U.S. military establishment as a whole has never recovered from Vietnam: it lost an entire generation of development in military aircraft, some kinds of strategic weapons, and in many classes of warships--and in its place gained a massive helicopter force, perhaps ill-suited to European warfare, and considerable production of weapons already in existence at the start of the war.

There is another aspect of the decision to intervene. Those who order it are far more likely to weigh the possibilities than are national leaders

contemplating large-scale war against some neighbor of nearly equal capability. They are far more likely to fit classical models of actors in international affairs; and they are likely to be very much influenced by the feeling that a failed intervention may be much worse than none at all. Indeed, this perception may be the major consequence of the Vietnam experience: prior to Vietnam, no one seriously believed that any small country could hold off the United States.

As American weapons and systems become more complex and far more expensive, their numbers seem destined to shrink--which makes losses in the relatively unimportant wars we actually fight (as opposed to the ultimately important--but unlikely--central war) more and more important. To a considerable extent this kind of consideration would seem to improve the deterrent effect of sophisticated weapons in the hands of Third World state.

* * *

The main prompt intervention force of the United States is the Navy: carrier task forces to provide air cover, and amphibious ships (such as helicopter carriers) to land men and materiel. Individual ships of both classes have grown immensely in size and cost over the decades of operations since World War Two, and in consequence numbers have shrunk, as it is far more economical to concentrate power in fewer hulls. This economy has been practiced in an environment in which losses of such ships were very unlikely, in view of U.S. air superiority and also in view of the absence of strong enemy threats.

Note that the support force, the artillery of the intervention, is above all composed of naval aircraft. Because they must be accommodated

aboard carriers, they are relatively few in number; and their capacity to do damage depends critically on how closely their carriers can approach the target, in terms of

- the balance between fuel and ordnance (somewhat alleviated by tanker aircraft)
- the sortie rate, dependent on the mission profile.

As the number of carriers has shrunk, the number of aircraft per ship has not risen to compensate. Rather, the aircraft have grown more complex and individually more capable, and the number per ship stabilized. Thus with changes in the structure of the U.S. naval air arm, and especially with economy measures which have reduced the size of the reserve establishment, the naval aircraft and their crews have become scarcer resources, perhaps less lightly expended.

It is well to note at the outset that the Navy believes it can operate in an environment far more threatening than that any small state can provide: it has designed its forces to operate against the Soviets themselves. However, it is important to keep in mind that such operations would occur in an ultimate war: the test would be whether relatively brief operations could be mounted successfully, with little regard to loss. Intervention, on the other hand, is an isolated operation at the end of which the U.S. intervention force must still be capable of intervening elsewhere, or indeed of fighting the central war. One aspect of the proliferation of sophisticated weapons may be that such ships may face severe losses.

The intervention force, the Marine Corps, is also relatively small, and hence subject to deterrence, in that losses can cripple it and thus make any given operation too expensive.*

It seems likely that any proliferator will have available to him a combination of moderate weight (early generation) nuclear weapons and sophisticated ("smart") conventional ones, the latter probably too small to carry his nuclear warheads. It also seems likely that indigenous development of large missiles to carry early-generation nuclear warheads will be unattractive because of

- program cost
- possible implicit disclosure of weapons policy
- unit cost.

It is worthwhile, then, to examine briefly the kinds of delivery systems easily available to would-be proliferators. Nearly all weapons on the current market carry warheads at or below the lower end of the scale of weights likely to be achieved in early-generation nuclear weapons. For example, Soviet missiles have a reputation for particularly heavy warheads; but the popular STYX anti-ship weapon carries a warhead of only about 400 kg (880 lbs.) of TNT, on a total weight of about 3,000 kg. The contemporary Soviet air-launched AS-1 (KENNEL) probably shows similar weights; it is

* This is a very general problem for elite forces. It is not clear that perceptions of possible losses are always deterring; thus, the paratroop forces of the Second World War were often used in rather risky undertakings. For example, the German force never really recovered from the Crete operation of 1941. This was despite the possibility that even more might have been gained later on from the special capabilities of the paratroops. Moreover, in many military organizations, heavy casualties are a source of pride--thus, the Marines' boast that they had suffered far worse than the Army in Vietnam. It is possible, however, that the prospect of catastrophic losses suffered with little attendant gain may deter civilian decision-makers.

interesting because it was exported to Indonesia, Egypt, and Iraq. A more sophisticated AS-5 was actually used by Iraq in the 1973 war; it probably carries a similar warhead. On the other hand, the Soviet FROG short-range ballistic missile is often credited with a warhead of about 2,000 lbs.

Western tactical missiles tend to be even less formidable. For example, the Honest John, considered relatively powerful and certainly widely used, has a 1500 lb. warhead.

The shortcomings of available missiles make tactical bombs and fixed installations such as mines particularly attractive. Elsewhere I have argued that new proliferators tend not to adopt unconventional nuclear weapons. However, it may be relevant to the allusions to mine warfare below to note

- NATO deployments (and widely proposed deployments) of "atomic demolition munitions"--atomic land mines intended specifically for area denial.
- Postwar successes in naval mine warfare, such as that of the North Koreans and of the Americans off Hanoi.

* * *

The most likely threat, then, is a combination of the two classes of weapons. In one vital sense, nuclear weapons and sophisticated conventional ones operate synergistically. The very sophistication of the conventional weapons often imposes on them a low rate of target engagement: for example, a soldier with a laser can designate only one tank at a time, and to avoid confusing the weapon he is guiding he may have to wait until after it hits

to designate a new target. Indeed, large numbers of targets closely concentrated may tend to confuse and so to negate attacks by guided weapons: thus the saturation problem.

On the other hand, the nuclear weapon is the ideal counter to saturation attacks closely concentrated in space and time; if the weapon is big enough, it simply destroys the entire incoming target array at a single shot. The typical countermeasure is to thin out the oncoming targets--which may play into the hands of the mass of conventional weapons. In this sense the threat of a nuclear weapon can sometimes enhance very greatly the efficacy of a conventional defense. Nuclear-guided weapons also benefit from their ability to operate in a heavy ECM environment. ECM, which is our basic high-technology counter to defensive weapons, often operates to cause them to explode far enough away as to be harmless. However, a nuclear weapon may have a sufficiently large lethal radius that it requires only relatively crude guidance largely immune to the subtleties of ECM. Moreover, each nuclear weapon is sufficiently lethal that it may be necessary to destroy the enemy weapon launcher from beyond its effective range, using some type of stand-off weapon. Nuclear defensive weapons may impose such great stand-offs that air-launched missiles of acceptable size cannot carry effective conventional suppression warheads. In a central war, one way to deal with such a problem is to use nuclear defense-suppression weapons, such as SRAM; but the intervention scenario is unusual in that so long as the Third World state being attacked has not used such weapons, there is a considerable onus on the U.S. if we use them to clear defenses--an onus superimposed on the usual one of warring against the Third World in the first place.

Now, it seems unlikely that any proliferator would have either the technology or the surplus of fissile material consistent with nuclear air defense; but he might find anti-ship weapons far more attractive. A heavy anti-ship missile would also be suitable for attacking shore targets--and many of the leading Third World cities are seaports. Thus it might be a very logical goal of a proliferator's research. Moreover, the anti-ship guidance problem is fairly straightforward (with the vital caveat that simple solutions admit of simple countermeasures), in that a ship stands out fairly clearly from the sea, in the radar, optical, and IR spectra. In addition, there exist many anti-ship weapons from which an enterprising proliferator might adapt guidance systems, although in general these weapons themselves are too small to carry early-generation nuclear warheads. Other likely weapons might include the usual bombs, air-to-surface missiles, unguided (or ballistic) surface-to-surface missiles (such as SCUD on the Israeli JERICO), and land and naval mines. One interesting point is that a wise proliferator might find it possible to conceal which of these paths he had taken, and also the size of his stockpile. Even were we privy to the amount of materiel available to a bomb-maker, we would still be unable to be certain of the number of weapons he could make; and in fact mis-estimates by a factor of two would have to be considered quite close.

There is another point well worth making. Although a single hit by a heavy anti-ship weapon such as the Soviet STYX may well be able to disable many destroyers and frigates, it will not, at least by its primary effects, be able to stop a ship as large as a carrier or helicopter assault ship. In fact, properly handled, such a ship might take multiple hits; and its onboard ECM and self-defense weapons (not to mention the weapons of

escort ships and aircraft) might well absorb many more incoming missiles. Thus a task force confronted with a large conventional attack might, at worst, be facing severe personnel losses and a requirement that its major units be rebuilt. The escorts integral with the force might indeed be sunk, but in order to impose this level of damage a defender would have to deploy resources quite possibly beyond his means. Of all conventional counters to a carrier force, in fact, the most potent would probably be controlled mines,* given a requirement for the U.S. force to operate in relatively shallow water. Even this would be chancy at best.

Nuclear weapons might present a very different sort of threat. Exploded close enough to a ship, such a weapon would inevitably be fatal. Even were it intercepted by the ship's onboard close-in weapons, the nuclear weapon might cause disabling damage to the carrier, without this damage in itself requiring the bulk of the proliferator's stockpile to be expended. Cleverly timed, a nuclear attack might disable enough of the task force's electronics to give conventional anti-ship weapons a fair chance of killing the carrier's escorts' and a carrier without escorts would have to withdraw.

This is not to say that the nuclear weapon would necessarily get through: after all, the Navy does expect its task forces to survive much worse environments operating against the Soviet Union. It is, rather, to say that the existence or, better, the possible or postulated existence of

* That is, mines which would be exploded on command, rather than by some signature of a ship passing over them. This is an old technology, and it seems unlikely that it will not have considerable appeal. A modern variation would be a mine transmitting back to its controller the readings of onboard sensors. Controlled mines were used in World War Two to block vital channels to enemy traffic while keeping them open to friendly shipping.

nuclear anti-ship weapons in the hands of a proliferator might tend to deter a U.S. government otherwise bent on attacking.

Were the U.S. government to persist, the threat of catastrophic damage from a single penetration of task force defenses would have to make its commander far more cautious. In operational terms, he would have, as usual, to divide his fighters between fleet air defense and operations over the strike targets. In these terms the efficacy of the carrier strike is at least partly a matter of the sortie rate over the target--and with conventional munitions that has to be high. That consideration must be balanced against the requirements of carrier defense, given the limited size of carrier air groups; moreover, the greater the number of fighters and other defensive aircraft which must be maintained continuously, airborne, the greater the drain of aviation fuel per effective attack sortie, and then the shorter the period between replenishments--and the replenishment groups themselves offer lucrative targets. In effect, then, given the threat of nuclear weapons (i) the proliferator can hope to deter the U.S. from intervening; and (ii) he can reduce the effects, per unit time, of carrier air attack--as long as his threat remains credible.

Several credible threats can be adduced. A carrier might be disabled or sunk by either air, surface, or underwater explosion. For an air burst, overpressures of the order of 10 PSI might be enough to disable a ship. With a 20 kt weapon, this overpressure occurs out to almost 1100 yards; a surface burst is somewhat less effective, although it might generate waves which would in themselves damage or even sink a large warship. Now, at 30 knots a carrier moves roughly 1000 yards per minute, so that in principle a ballistic weapon of low yield will not have a very high probability of

success. For example, a weapon requiring two minutes flight time gives the carrier an uncertainty in position over a circle of two thousand yard radius. However, if the carrier group is under a constant threat of such attack, it can be forced into continuous evasive maneuvers. Of course, it may well be possible for the self defense missiles of the carrier force to intercept an incoming (tactical) ballistic missile, especially if nuclear SAMs are used. But, once again, the United States may be unwilling to initiate nuclear use, even defensively. In any case the existence of nuclear anti-carrier weapons raises the stakes in what may seem a very minor sort of war.

Another anti-carrier threat might be the nuclear sea mine. A credible nuclear mine threat might be a useful means of area denial to carrier task groups. It could not keep them far enough out to prevent their operation; but once more, effective sortie rates would fall, and perhaps conventional air defenses would gain in effect. The amphibious force would of course operate under far more serious limitations, as it might prove entirely impossible to move sufficient materiel onto the landing area, given the increase in distance. Once more, the existence of nuclear weapons would tend to enhance the effectiveness of quite conventional ones.

Of course, the explosion of a large weapon at or near the sea-floor would have unpleasant collateral effects, perhaps especially on the proliferator--tidal waves are quite destructive. However, many governments have demonstrated a willingness to fight to the last of their citizens. In any case the essence of the sea mine is the threat it presents, not the damage it may happen to cause--there is not, after all, so very great a chance that a ship will find itself within the mine's lethal radius. However, shore control of the mine might well make it nearly unsweepable.

The landing force, once ashore, presents an attractive nuclear target as it concentrates to attack inland. It is not too hard to imagine conventional tactics requiring the concentration of such a force, while the threat of nuclear air or missile attack makes dispersion seem far wiser. Although quite possibly the landing force would still be viable, it might have to reckon on much higher rates of casualties than previously assumed; and such reckoning would be so clearly in order as to be deterring.

In both cases the threat of nuclear weapons might well be more important than their use. Especially if the proliferator has a very small stockpile to begin with, any exotic employment of weapons may be a serious loss of prospective power. If the size of his stockpile is known, it is like the case of a gunman in a Western movie: the opposition can count off rounds one by one, until it is quite clear that the chamber (stockpile) is empty--and it takes far longer to make a new bomb than to reload a revolver. In fact, given certainty as to the size of the stockpile of, e.g., sea mines, the carrier group could try to find them--a reasonable task if the numbers are small and definite. However, if the threat is made but the numbers and even the approximate locations are unknown...*

* Some of the best and most ironic examples of threat are to be found in mine warfare. During World War Two a type of sea mine activated by the pressure wave of a passing ship was developed; it could be swept only by passing a relatively worthless ship overhead to detonate it. As a counter to this practice, the Germans began to incorporate ship counters in their mines, to activate them only after the sweeper had passed. Given a located mine (no easy feat in itself), the sweeper had then to pass back and forth until the mine exploded--only then was passage safe. The British then raised this art to its peak by depositing a block of concrete in the channel leading to a German-held harbor: the Germans "swept" it for a month before they realized what it was.

One effect of nuclear anti-ship weapons would almost certainly be dispersion of the ships in the carrier task force, to a point at which submarines might have a better chance of operating--especially were they to be equipped with the rising generation of underwater-launched anti-ship missiles. Here the submarines of a small power might well benefit from the ambiguities of low-intensity war: the U.S. forces would probably have to assume that Soviet and other submarines, which they would not want to attack, were present as observers; and the reach of the anti-ship missiles would make it harder and harder to be positive that an unidentified submarine in the area could be considered hostile.

The key elements here would be the forced dispersion of the task group, quite possibly opening up gaps in any sonar screen; and the ambiguities inherent in a 30- or 60-mile anti-carrier weapon. That is, the 60 nm-radius circle centered on a carrier might well be so large as to contain many submarines not obviously hostile. This problem would be compounded by the fact that very few Third World navies have had submarines built specifically for them; hence their own boats are essentially impossible to identify unambiguously (e.g., from their sounds).

These examples suggest that intelligence is absolutely vital in determining the tactics of war in the presence of a proliferator; yet it is not clear that such technical intelligence would be very easy to acquire. Historically, the small size of nuclear weapon programs has made them relatively easy to secure. Moreover, a sophisticated proliferator might well try for a "universal" warhead, deliverable by any of several systems he had bought abroad.

Just what a country with a small stockpile will do with it depends not only on the characteristics of the weapons but, critically, on their numbers. One of the more interesting features of post-1945 U.S. military analysis was the realization that a few tens of 20 kt weapons were not the makings of Armageddon. This rather sobering realization might cause proliferators with moderate stockpiles to concentrate on militarily useful applications--such as deterring U.S. intervention in a local war, rather than a direct blitz against neighboring states.

SOME PROBLEMS IN MONITORING
PROLIFERATION ACTIVITIES

by

Norman Friedman

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SOME PROBLEMS IN MONITORING PROLIFERATION ACTIVITIES

In one vital way, the problem of gathering information on nuclear proliferation is analogous to the old problem of defense against nuclear attack: the price of any partial failure is very high, and in addition each element of the target array is so potent that it is easy for someone to hide a good part of it. Moreover, our general knowledge of potential proliferating countries is sufficiently sparse that we may be unable to distinguish items of interest from the background of "noise." This is merely another way of saying that the U.S. intelligence community spends a great deal more time per square foot observing the U.S.S.R. than, say, Argentina. However, an important consequence is that it is far easier for the Argentines to hide something we may want to find--although, on the other hand, Argentine security may be far more permeable than Soviet, so that a strong U.S. effort might be far more successful in her case.

There are two basic monitoring tasks associated with U.S. proliferation policy. One might be called triggering: we search for any indication of a weapons program, in order to trigger a U.S. government response, political, economic, or perhaps military. It is important to recognize that the search for indicators is a search for triggers: there is relatively little interest in uncovering the whole of the program, or perhaps even in sensing its relative state of development. It is enough to note some bit, hopefully unambiguous, which can be used to justify anti-proliferation action on our part.

The other task is far more difficult. It is the elucidation of the entire program of the proliferator, with a view to

- estimating the potential he has to damage his neighbors and, perhaps, us.
- verifying claimed compliance with measures an erstwhile proliferator may have to take following U.S. action.
- making possible the complete neutralization of a proliferator's weapons program, perhaps by military action.

In this task the essential quality is completeness. Perhaps the ideal outcome for a proliferator would be for his weapons program to be uncovered by some fairly public triggering act, and then to comply incompletely with some anti-proliferation demands, so that he continues, for example, to receive aid and/or nuclear fuel while at the same time retaining a serious weapons capability.

From a proliferator's point of view, a very great deal depends upon how long after the initiation of his program he can keep it secret. As long as U.S. monitoring resources remain untriggered, he can work at secreting weapons resources against the day he will have to go public and then perhaps appear to renounce the weapons. One possibility might be a state which decided to manufacture weapons and then either stole or concocted a design it was certain would work. This state might then try to build as many bombs as possible, hiding them about its territory. After a time, it might want to show that it was in the bomb business by exploding one--which it would describe, of course, as a prototype. It might then appear to comply with anti-proliferation guidelines by abandoning the facilities built for future production; it is hard to imagine that any attempt to enforce the anti-proliferation treaty would include what would amount to a strip-search of an entire country.

The only hope of circumventing such tactics would seem to be continuous and detailed observation of the territory of all potential proliferators, on a scale rather more rigorous than current U.S. observation of the Soviet Union--since we cannot hope to catch everything which goes on in the U.S.S.R., but we are content not to on the theory that anything important will produce widespread effects which will come to our notice. Note that a Soviet effort which produced, say, twenty A-bombs would matter little in comparison to the usual Soviet threats; but non-proliferation is concerned with just such problems in countries such as Israel and Argentina. Note, moreover, that the relatively small size of nuclear components makes concealment from overhead observation particularly easy; and by now every potential proliferator is aware of the threat of satellite photography--and of how such observation appears to have foiled the South African proliferation program.

There is one other major problem. If the United States is to foil proliferators at the earliest possible point, i.e., before they have built up covert stockpiles, then it is important that we be able to make a convincing international case against such nations at a point where their programs may seem quite peaceful to naive observers. It would seem that such a case might well require the disclosure of the sensitive methods of gathering intelligence (e.g., spaceborne), at least to the proliferator himself, as a warning of what might come out if he refused to cooperate. It then becomes an interesting question whether such disclosure is in itself more harmful to the United States than relatively unconstrained proliferation.

At present this kind of point is generally disregarded because of the widespread assumption that bombs will be made from reprocessed reactor fuel,

and that therefore safeguards on reactors provide an almost total guarantee not merely that any initial experiments will be caught and stopped but also that bomb production will be aborted--for if it is hard to abscond with two or three kilograms of plutonium, tons will be far harder. We therefore focus on the fuel cycle, and on the current U.S. near-monopoly on uranium enrichment.

However, a proliferation program intended from the start for covertness might easily circumvent this type of observation. First of all, new enrichment processes may either place Orallo in the hands of potential bomb-makers, or at the least they may make covert reactor construction possible. It is worth keeping in mind that the United States was able to build reactors for bomb production using the infinitely less sophisticated technology of 1944 (Hanford); there is little reason to believe that a weapon-maker not particularly concerned with worker safety or with efficiency could not duplicate that feat; or that he could not do it over a long enough period to hide it from U.S. surveillance. Uranium is plentiful enough for many potential proliferators to obtain it locally, albeit at very high costs. But, once more, costs we consider prohibitive may be quite reasonable if they add up to a functioning weapon. Moreover, an Orallo bomb is so likely to function perfectly that it may make an initial test entirely unnecessary--an important point to a proliferator seeking a covert stockpile.

Incidentally, such a proliferator might deliberately build a bomb with reactor plutonium merely in order to have something we can see and cut off; in that case we will not even suspect the existence of a stockpile. That is, an "in the business boom" derived from non-controlled sources of Orallo

alerts us to the existence of an industry the destruction of which we might demand, and thus jeopardizes the entire weapons program. However, one made by illegally abstracting reactor fuel rods would lead us to think that a simple fix would solve the problem.

All of these considerations are directed towards the elucidation of the nuclear industry of the proliferator. However, if military action is contemplated, then much more is required. Detailed data on air defenses are vital for our attacking force; and it may be important that we do not tip our hand by obviously acquiring such data in the short period just before our strike. As in the case of the nuclear industry, this is a matter of long-term surveillance of potential target states, surveillance on the scale accorded East Europe and the U.S.S.R. Although less spectacular, political or economic action on the part of the United States would have to be based on well evaluated, detailed, and extensive information--both technical and subjective--which also might prove difficult to develop in a hurry.

To further complicate matters, it seems likely that the objective of intervention would be the total destruction of the proliferator's stockpile and nuclear resources, which requires very detailed wide-scale target data--data requiring some considerable time to build up. The consequence of failure to obtain complete data is survival of the proliferator's stockpile (or, at the least, of his nuclear potential) coupled with a new feeling that weapons might as well be used at once, since they are always potential targets for intervention.

Moreover, any betrayal of the collection of operational intelligence (e.g., ESM missions) will tip off the proliferator to the immediacy of

intervention and so allow him to strengthen local defenses to a point where intervention may become quite expensive.

Perhaps the best way to express this problem is to compare it with the case of the Soviet Union. The Soviets know that they are targeted in the U.S. war plan, and so it does not surprise them particularly to have American intelligence assets continually targeted at them. At the same time, because an attack on the Soviet Union is a primary U.S. military mission, the U.S. intelligence agencies maintain extensive files on the location of major Soviet installations--although there can be no claim of the kind of completeness required for a nuclear intervention attack.

The trouble is that nuclear intervention demands the quality of analyzed and evaluated intelligence normally developed against the most important Soviet targets. Probably the best way to obtain such information would be to begin an intensive campaign at the beginning of any foreign country's nuclear effort, trying to follow the development of its (clandestine) nuclear industry in detail to overcome attempts at concealment and decoying. This is very different from looking for signs of bomb-making, and taking some political action at the first such sign. It is essentially the difference between a tactical and strategic response to the problems of monitoring proliferation activities.

SOME THOUGHTS ON SUPERPOWER CONFRONTATION AND
COOPERATION IN A MORE PROLIFERATED WORLD

by

Lewis A. Dunn

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SOME THOUGHTS ON SUPERPOWER CONFRONTATION AND COOPERATION IN A MORE PROLIFERATED WORLD

Most discussions of the problems of proliferation assume that more widespread nuclear-weapon proliferation would heighten the risk of Soviet-American confrontation and conflict. But, pointing to joint Soviet-American efforts to slow the pace of proliferation, some persons suggest that future Soviet-American cooperation to manage proliferation's consequences is at least equally likely. Nor, so this argument continues, is it clear that any risk of superpower confrontation that might be agreed to exist for purposes of argument would not have existed anyway--with or without proliferation. That is, there would not be an augmented risk of superpower confrontation arising from newly nuclearized local disputes.

To provide an introduction to assessment of these contending propositions, this paper briefly sets out the pressures and counterpressures for superpower confrontation. Tentatively proposing that at least initially superpower confrontation would be more likely than would their attempt to manage jointly a more proliferated world, it then considers means of reducing that risk. More specifically, by way of conclusion possible agenda-items for a future SALT-type Soviet-American proliferation dialogue are sketched.

Pressures for Superpower Confrontation

Several pressures for superpower involvement--with the risk of confrontation--in newly nuclearized regional confrontations can be noted. These include: reluctance not to continue supporting allies or friends or

to sacrifice interests within the region, miscalculation, local efforts to trigger such involvement, and the heightened tempo of events and lessened superpower control over those events.

Concern about the risk of Soviet-American confrontation is based first on a structural characteristic of future nuclear-weapon proliferation: in the Middle East, the Persian Gulf, South Asia, and Northeast Asia the superpowers presently are involved in most instances on opposing sides of prospective local nuclear confrontations and clashes. Those of Israel and Iraq, Iran and Iraq, Pakistan and India, the two Koreas, Iran and India, and Israel and Libya all come quickly to mind. Moreover, the continued existence of significant competing foreign and strategic interests in these newly nuclearized regions would probably make decoupling an unattractive option, dictating instead reluctant support of allies, friends, or clients. Further, those competitive aspects of the superpower relationship also would run counter to joint efforts to stabilize these new strategic situations. In fact, local nuclearization might be seen to provide the Soviets with an opportunity for more activist pursuit of their interests. It could do so, for example, in Southern Africa, by legitimizing greater Soviet and Cuban involvement.

As is now the case, miscalculation of how the other superpower--possibly also reluctant not to support his ally, friend, or client--would respond also could lead to superpower confrontation in a proliferated world. One superpower might fail to perceive correctly the stakes that the other saw at issue, or it might inaccurately assess the other's readiness to accept costs and run risks to protect those stakes. Such miscalculation could be all the more likely in the uncertain and uncharted environment

following use of nuclear weapons in a newly nuclearized clash.

The preceding pressures for superpower confrontation--reluctance to sacrifice pursuit of more immediate strategic and foreign policy interests to a putative pursuit of longer-term "stability" and miscalculation of the opponent--already operate in today's world. A third pressure would be to a greater degree the product of increased nuclear-weapon proliferation: efforts by new proliferators or groups within them to trigger outside superpower intervention, efforts which if successful could lead to a direct confrontation. Though an extreme scenario, one of the superpower's local assets, e.g., a base or part of its naval forces in the region, might be attacked by the superpower's own client in such a way as to make it appear that the other superpower's client was the perpetrator. Or, self-inflicted but minor nuclear damage could be utilized. Though admittedly difficult to envisage now, this tactic would not be too far removed from the more typical "cries of imminent attack" that already characterize many of these conflicts. As a variant of this, in such a political milieu as that characterizing the Middle East, one Arab country might anonymously detonate a nuclear weapon in a second country in an attempt to trigger Soviet assistance.

Finally, the increased tempo of events of newly nuclearized crises--much less conflicts--also might augment the risk of superpower confrontation, especially since an important aspect of this heightened tempo would be reduced superpower ability to influence those events. Thus, even more than in other crises or conflict situations lessened influence over fast-moving developments could result in the superpowers being dragged along with their allies before they could disengage.

Counterpressures to Superpower
Confrontation

Turning to counterpressures to superpower confrontation, fear of just that loss of control over events probably would constitute a key factor possibly holding down the degree of superpower involvement and lessening, thereby, the prospect of their confrontation. Reluctant support could be just that: No "blank checks" would be issued, allies' claims might be verified more cautiously, and care probably would be taken to disassociate from more extreme actions by allies, friends, or clients. And, even assuming some initial involvement, once the possibility of a direct clash became evident both sides might seek to draw back before the tempo of events became uncontrollable.

Of equal importance, notwithstanding the superpowers' pursuit of their competing interests in these regions, an important common interest in managing the process of proliferation does exist. This mutual interest rests partly on their collective benefit from at least a modicum of global order--neither would desire widespread black market sale of fissile material--and partly from their desire to preserve their dominant global role. That is, the "logic of power" suggests cooperative joint action better to pursue even their separate interests.

Nonetheless, at least initially these pressures for cooperative superpower action may prove unable to counterbalance those creating and augmenting the risk of confrontation. Particularly given superpower involvement on opposing sides in many newly nuclearized conflicts and their probable reluctance to sacrifice pursuit of short-term to long-term interests, it is difficult not to conclude that local nuclearization would

not be accompanied by an occasional limited superpower confrontation. Further, should their common interest in cautious pursuit of their interests and avoiding those confrontations' escalation be overtaken by the tempo of events, a direct clash within the region could occur.

Even so, after having been entangled in one or more local nuclear disputes, the superpowers might go so far as to decide that the risk of confrontation in such conflicts simply was intolerable. Reasserting their latent but nonetheless still present capability to enforce their will on lesser powers, they might dictate rules of the local nuclear game. Or, they might seek agreement on other measures or understandings--tacit or explicit--for reducing the risk to themselves of local nuclear conflict. How might that later approach be pursued, perhaps even before the dramatic shock of local nuclear use?

Agenda for a Future Soviet-American Proliferation Dialogue

In the past several years considerable Soviet-American discussion of proliferation policy has occurred both bilaterally and within multinational forums such as the London Suppliers Club. This discussion, however, has focused on how to slow the spread of nuclear weapons by controlling and more tightly safeguarding nuclear exports. But given the prospects for at least some additional nuclear-weapon proliferation--and at least significant uncertainty about the prospects for dangerous superpower confrontations--it is not inappropriate to begin thinking through how the current dialogue might be broadened to cover other issues. More specifically, concentrating now on reducing the risk of a Soviet-American confrontation in a newly nuclearized region, what items might be on the

agenda of any hypothetical future SALT-type meetings?¹

To begin, recalling earlier experience with Soviet-American miscalculation, their discussion could focus on how each side defined its interests and options in these newly nuclearized conflicts. Areas of disagreement could be focused on, while actions that one or the other superpower would find unacceptable, requiring a response, thus might be identified. Specific consideration of possible consequences of and responses to the first use of nuclear weapons by a new proliferator also might be discussed. Though considerable posturing probably would be unavoidable, each side might be forced to think through its own position and some clarification of their respective positions could occur.

Means of exchanging timely information and intelligence on events within a rapidly moving local nuclear confrontation also might be on the agenda. More accurate information, for instance, of whether a nuclear detonation in Damascus was an Israeli bomb, a PLO bomb, or a Syrian one, might help to avoid precipitous superpower actions. As part of this discussion of crisis-information-exchange, thought might be given to how information possessed by the superpowers might be convincingly transferred to a new proliferator where that would help stabilize a situation.

Joint preventive measures designed to deal more directly with the underlying causes of and more proximate triggers to local nuclear conflict--and hence of superpower confrontation--might be a topic of discussion as well. For example, how to provide jointly assistance on weapon-safety

¹Other issues also could be discussed in such a dialogue. For example, how to handle the implications for each other of any United States and Soviet military posture changes adopted to deal with threats from proliferation would warrant assessment. Here only illustrative agenda items for the confrontation aspect are considered.

and command and control might be considered. Similarly, if black market access to nuclear material and assistance by a terrorist or sub-national group is agreed to be a significant potential trigger to local conflict, preventive action such as pooling of intelligence resources to uncover and deal with a black market sale of fissile material, tracking of renegade nuclear scientists selling their services to such groups, and direct anti-nuclear-terrorist measures could be broached. Possible joint action against any country selling nuclear weapons also might be considered.

The agenda of this future Soviet-American proliferation dialogue also could usefully include examination of actions that each side would agree not to take for a specified time period (one hour? one day?) after a nuclear weapon had been detonated in a newly nuclearized region. Possibilities include: non-issuance of policy statements promising assistance or threatening punishment; not going on alert; no shows of force locally; no instant retaliation; and so on. Asking what should not be done would foster thinking about how to minimize the risk of unintended confrontation, to slow the tempo of events, and to avoid precipitous action.

Finally, though more formalistic and unlikely to be acceptable, possible Soviet-American rules of engagement for a more proliferated world also could be discussed. For purposes of illustration three can be noted briefly: last-resort-only intervention, post-first-use decoupling, and joint and several management. Last-resort-only intervention would permit intervention but only if the survival of a friend, ally, or client were at stake. For example, threats of retaliation to prevent city-busting attacks on a nuclear-armed ally or his complete territorial demise would be acceptable. Short of that threat to survival, both sides would abstain

from taking sides in local nuclear clashes. Post-first-use decoupling would entail joint agreement to support one's nuclear-armed allies, friends, or clients only until the point where nuclear weapons had been used. Then both superpowers would stand aside and let the locals slug it out. In joint and several management the superpowers would deter local first use of nuclear weapons by the threat of proportionate tit-for-tat retaliation to such first use. For example, an Iranian attack upon Iraq would be met with surrogate superpower retaliation. Adoption of each of the preceding rules of engagement admittedly is improbable in light of current realities, presupposing too high a degree of cooperative Soviet-American interest. But after a future dramatic shock--for instance, the first use of nuclear weapons since Nagasaki or a close encounter in a local nuclear war--these or comparable rules of engagement well could appear less unthinkable.

The preceding suggests the types of issues that could be included on the agenda of a Soviet-American proliferation dialogue. In some cases, e.g., as with rules of engagement, adoption of a specific measure would be highly unlikely. Yet, discussing even those more hypothetical alternatives probably would help to sensitize both superpowers to the most likely flashpoints, risks, and traps of entanglement in newly nuclearized regions--or at least to each other's perceptions of them. More important, on the foundation of such a dialogue eventually might be built a more cooperative Soviet-American endeavor to manage these and other risks and complications of more widespread nuclear-weapon proliferation.

SOVIET-AMERICAN STRATEGIC INTERACTION IN
A PROLIFERATED WORLD

by

Colin S. Gray

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SOVIET-AMERICAN STRATEGIC INTERACTION IN
A PROLIFERATED WORLDIntroduction

This paper begins with the premise that highly selective nuclear proliferation should make a difference to the likely incidence of some local crises, to the conduct of local actions in such crises, and to the incidence and character of superpower involvement. This tentative belief can only be tested through scenario design. It is possible that public knowledge of Israeli, Yugoslavian, South African, et al., nuclear-weapon capability will affect superpower crisis behavior, but not superpower weapon programs, military doctrine, or (bilateral) arms-control interaction. Furthermore, it is not assumed that all future cases of nuclear weapon proliferation (in its various forms) must necessarily be unfortunate--either for local stability, or for international security more broadly.

The discussion below accepts no anti-proliferation mandate, nor does it rest upon careful predictions of the identity of likely proliferators. The problem here is of the genus--"if Iran (etc) has acquired nuclear weapons, what difference, if any, might that make to Soviet-American relations (and to the likelihood of occurrence of Soviet-American crises in particular)?" A major problem for any defense analyst looking into the 1980s from the perspective of 1978 is that nuclear proliferation as a source of security concern is overshadowed by the prospective asymmetries between the superpowers in strategic capability. This is not to argue that particular instances of proliferation are likely to be unimportant for Soviet-American relations, only that--on currently predictable

trends--developments in the Soviet-American strategic balance are likely to be rather more important. Unfortunately, the trends of selective proliferation among chronically conflict-prone/liable countries and a deteriorating strategic balance could well function synergistically. That is to say, the superpowers will not become locked in confrontation politics and slide into war because the strategic balance has evolved in the Soviet favor--the confrontation could arise as a consequence of crises made more acute by regional nuclearization. But, Soviet and American perceptions of the strategic balance could, and logically should, substantially determine whether and how there was a military outbreak from a local crisis to eventual intercontinental action.

Both historical evidence and common sense indicate that countries do not engage in acute international crises solely on the basis of cool, and rather abstract, net assessments of the relative advantage to be expected following a clash of arms. Conflicts are made and conducted by politicians, not by defense analysts and planners. Analysis of the crisis meaning of asymmetries in civil emergency preparedness and of hard-target counterforce tends to be lifeless and lacking in persuasive power (as well as being highly speculative). This paper discusses the likelihood, or otherwise, that selective nuclear proliferation might enhance the political connections between local conflicts and superpower military use decisions. A hypothesis to be examined is that selective proliferation might enhance the political salience of superpower strategic disparities.

As a very general observation this author would argue that the kind of superpower strategic disparities that he has in mind (in civil defense, hard-target counterforce, and even overall strategic weight) should not be permitted to develop--regardless of the details of our analysis and speculation concerning the implications of selective proliferation. The importance of such proliferation is that it may (and this has yet to be established) increase the chances of direct Soviet-American confrontation, wherein a major price could be exacted for any notable deficiencies in U.S. military posture.

Logically, there is concern that some instances of proliferation could increase the risks of Soviet-American confrontation (this concern clearly should be reflected in rigorous anti-proliferation policy); while also, there is concern that since the United States does not hold all of the keys to the nuclear-weapon candy store, the prospects of superpower confrontation could rise regardless of American prophylactic efforts--in which case the U.S. prudently has to attend to its crisis management ability. It is one thing to face a rising danger of superpower confrontation; it is quite another to face such a danger with a high probability that one would be defeated in the confrontation.

The Strategic Balance: 1978-1990

The evolution of the bilateral superpower strategic balance through 1990 is reasonably easy to predict as of early 1978. We know the thinking of the Carter Administration, as reflected in its first defense budget (FY 1979); we have a good understanding of the lead times pertaining to major prospective U.S. weapon programs; we have a moderately confident understanding of the character and pace of Soviet strategic effort; and most of the detail of the pending SALT 2 Treaty (and its three-year Protocol) is well known. Strategic forces are, of course, only one element in the overall military equation and, in the view of many people, are the least relevant to prospective political problems (e.g., the notion that there are usable and unusable [nuclear-tactical and strategic] forces has wide currency). The logical flaw in this belief lies in the consideration that if the strategic balance is unsatisfactory, the adversary is ceded escalation dominance. The practical flaw lies in the distinct possibility that the Soviet Union, whose power projection capability should still be marginal in many areas through the 1980s, could discern considerable incentives to proceed rapidly up the escalation ladder to strategic nuclear threat (and employment), in the event that local events developed adversely. (This tentative judgment applies with particular force to the Middle East. For the foreseeable future [as was the case in October 1973] Israel alone could defeat any Soviet military deployment

on behalf, say, of Syria and/or Egypt. If the IAF shoots down AN-22s packed with Soviet airborne troops, what do the Soviets do for an encore?). Judgments on the political meaning, if any, of predictable trends in the strategic balance, have to be hedged with caveats. However, the essential backcloth to this paper are the following candidate facts:

1. The United States, in the period 1982-1988 will have a land-based ICBM force which will be unable to deter attack upon itself.
2. The MX ICBM program, with its currently projected IOC and FOC, will be irrelevant to the 1980s.
3. The B-1 decision of June 30, 1977 increased markedly the adverse relative throwweight relationship.
4. The rationale for the B-1 decision--the promise of cruise missiles--rested upon unsubstantiated optimism over the likely pre-launch and penetration survivability of cruise missiles.
5. The Soviet Union will have a very large and serious civil defense program, and the United States will not.

The political meaning of the above points may be disputed, but the overall capability trend is quite unmistakeable. The strategic balance backcloth to the nuclear proliferation scenarios outlined below is one of a diminishing permissiveness for U.S. escalatory initiatives and responses. To translate capability predictions into likely political behavior has to be a peril-fraught enterprise. Nonetheless, the adverse trend identified here should--if it is broadly persuasive--

mean the following:

1. The United States is deterred from initiating strategic nuclear use (on any scale) against the Soviet Union.
2. The United States, if it does initiate strategic use, should appreciate that its prospects of coercing an improved conflict outcome would be close to non-existent (the adversary could more than match U.S. escalation).

In practice, careful (and perhaps terrified) politicians might choose to ignore the strategic logic advanced by defense professionals, but it is reasonably clear that the period 1982-late 1988 should constitute--at the level of strategic nuclear net assessment--the most dangerous period the United States will have faced since the 1940s. The basis for this judgment should arouse little analytical fury in any quarter. The theoretical vulnerability of the silo-housed Minuteman-Titan force is no longer a matter of active debate. (Hence Harold Brown's endorsement of full engineering development of MX, and DoD's renewed interest in launch-on-assessment). What is a matter of debate is what, if anything, should be done as a consequence of this anticipated vulnerability. It is as likely as not that the U.S. will phase out its ICBM force altogether during the 1980s. The United States could choose to change postural course, but--as of early 1978--we are sliding into a strategic context wherein the strategic posture contains only one retaliatory element in which high-confidence can be reposed: the SLBM force. One can specify ways in which short-term "bandaid" fixes to this problem (if such it be--many people will

view it as an arms-control opportunity) can be effected, but--overall-- the United States is in the process of taking some enormous, and unnecessary risks. Just how seriously these risks are viewed is a function both of one's assessment of the strategic and political reasoning of Soviet and American decision-makers, and of estimates of the likelihood of acute Soviet-American crises in the 1980s. The latter, however, can only be low-confidence projections.

It is worth recalling the words of Albert Wohlstetter in his "Delicate Balance of Terror" article in Foreign Affairs in 1959:

"There are good and bad, that is adequate and inadequate, or stable and unstable deterrents... (The) stability of a deterrent is measured by the shocks it can sustain. A good deterrent is one that works in crises when the risks an adversary might feel in not striking would be very large. We want a deterrent that will make striking with nuclear arms worst of all possible alternatives available to an adversary, even when the alternatives may look bad... The object of a deterrent is to reduce the chances of war."

The strategic, theater-nuclear and naval balances have changed dramatically since 1959, but Wohlstetter's reasoning is as valid today as it was in 1959. Defense professionals, following Wohlstetter's logic or prudence, are obliged, almost, to overdesign the strategic force posture--to seek to take out programmatic hedges against very unlikely events. It is probably true to claim, seq. James Schlesinger, that the United States does not need a strategic posture for 364 days out of a year--we are not deterring the Soviet Union day by day. But,

since there is no "rent a SAC" option available, and since there is no way of knowing what effect the U.S. "deterrent-in-being" has upon Soviet diplomacy in times of non-crisis (otherwise known as "arms-competition-as-usual"), it is prudent (if, admittedly, apparently rather paranoid) to assume that we might need our strategic posture at any time.

The Carter Administration professes itself to be satisfied with the actual and anticipated evolution of the strategic nuclear balance (see the details of the FY 1979 defense budget). That satisfaction may prove to be well-placed: all that is claimed here is that the evidence available today does not, on balance, support such satisfaction. Moreover, it is difficult to speculate convincingly on the subject of the possibly enhanced risks of Soviet-American confrontation that may flow from selective instances of regional nuclearization, when the more likely source of American political embarrassment will be strategic postural deficiencies that could be relevant to a very wide range of crisis-war outbreak scenarios. (Such deficiencies could include: ICBMs that cannot deter attack upon themselves; land-mobile MX ICBMs not procured until 1987-90; cruise missile carriers acutely vulnerable to severe attrition by a Soviet long-range barrier air defense; and the absence of serious crisis-relocation planning for urban Americans). In short, it appears to be the case that the strategic nuclear balance will be unsatisfactory to the United States in the 1980s (at least according to one theme of strategic reasoning),

and the proliferation issue--in the context of this paper--intrudes insofar as it might set the political scene for a serious road-test of rival strategic postures, doctrines, and beliefs.

A President and his Secretary of State may choose to ignore what they deem from their elevated perspectives, to be "issues" that amount to strategic trivia. But, the community of defense professionals, inside and outside of government, is not licensed, or entitled, to ignore possibly major disadvantageous strategic asymmetries. Some agency of government has to worry about possible postural weaknesses--if the Defense Department does not, it is close to a certainty that State/ACDA and the White House will not.

Illustrative major questions which arise out of the discussion thus far include the following:

1. To what extent is it sensible to discuss the possibilities of Soviet-American confrontation triggered by local (unilateral or bilateral) nuclear crises, without taking prior detailed notice of probable trends in the strategic balance?
2. How important are (possibly conflicting) assessments of the strategic balance to the likelihood of superpower intervention in local conflict (e.g., could a USA not confident of its strategic nuclear superiority have intervened in Vietnam in 1965?).
3. Overall, should one approach the "military planning implications" (of selective local proliferation) problem area from "the bottom up," or from the "top down"? (This paper, in its structure, clearly is a "top down" cut.) It makes little sense to discuss hypothetical crises in the 1980s without first analyzing the (very) likely character of the evolving strategic context of the 1980s. But, such discussion is vulnerable to the charge that it subsumes the heart of the subject matter of the problem. Namely, some of the details of that strategic context could be different as a consequence of postural/doctrinal

"fixes" effected to alleviate the problems identified as stemming from the possible "proliferation-connection."

4. How, if at all, are perceptions of the state of the central strategic nuclear balance relevant to the willingness of the superpowers (a) to issue local political commitments (checks?), and (b) to commit ground/naval/tacair forces?

Multilateral Balance Considerations

The kind of selective nuclear proliferation of relevance to this paper cannot, plausibly, transform a substantially bilateral strategic nuclear balance (to which a bilateral framework for SALT remains apposite) into a multilateral balance: that could happen only if Mr. Carter's dream of an SNDV reduction to 250 or so were effected. For many years to come the superpowers will be able to continue to presume an essentially bilateral structure to nuclear deterrence issues. A reputation for determination, fanaticism, a martyr-complex, or just plain folly, may offer some compensation for lack of capability, but it is fully evident, in 1978, that although selective nuclear proliferation in the 1980s could well pose some novel dangers, those dangers are not of a kind that easily may be accommodated within traditional modes of reasoning concerning nuclear deterrence. An Idi Amin or Colonel Quaddafi, as national leader is probably worth a hundred ICBMs (indeed such leaders seem almost to have been custom-designed with Thomas Schelling's writings of 1956-58 in mind), but the (im) balance of capabilities between the superpowers and even the long-established proliferators is so marked that bilateral superpower-oriented deterrent logic simply is not applicable to consideration of crisis interaction among, say, the U.K. and the Soviet Union, or the CPR and the Soviet Union.

Proportional deterrence, gallic style, belongs more to the theater of the absurd than it does to serious strategic analysis (which is why French officials have had such difficulty explaining the strategic rationales for the force de frappe--as a general rule it is difficult to explain that which one does not understand oneself: the British have been more sophisticated--they have declined to offer strategic rationales). Paradoxically, the French and British "deterrents" (if such they be) are eminently defensible and are, indeed, examples of benign proliferation.* Leaving aside the real reason for these nuclear forces (which may be summarized as pertaining to the glory of France, French civil-military relations, and intra-alliance bargaining clout--and the self-conceptions of British citizens), there is some merit in the late Andre Beaufre's argument that in a context of superpower strategic stability, stability at the theater-level is enhanced if there are several genuinely independent centers of nuclear decision-making. NATO-Europeans reading Harold Brown's Posture Statement for FY 1979 will, no doubt, be pleased that the British and French nuclear deterrents will be operative through the 1980s (since, after 1982-3, the U.S. strategic posture will not be able to offer any back-up support to a NATO that finds itself in very serious regional trouble). Those independent deterrents will not make any real difference, but they should constitute small complicating items in the relevant Soviet risk calculus, and NATO could need all of the small complicating items that are available.

*This may or may not be a new concept, but it clearly should have some (probably small) place in our Pantheon of strategic ideas.

In the late 1980s, even the mature proliferators (the U.K., France and the CPR) will have strategic nuclear capabilities that are close to trivial by superpower comparison. Britain will still dispose four Polaris SSBNs (the A-3 SLBMs will have upgraded warhead packages)-- and will have several hundred nuclear-capable tactical aircraft (presuming that the Vulcans eventually are retired); France should dispose five or six SSBNs, 18 IRBMs, and probably 100-200 nuclear-capable tactical aircraft; while the CPR should have deployed close to 100 CSS-2 IRBMs, perhaps 40-50 ICBMs, and a very seriously aging force of Badgers. The strategic nuclear environment of the 1980s should differ from the 1970s in two principal respects: Soviet competence vis à vis the United States should be improved very markedly (a point conceded in Harold Brown's FY 1979 Posture Statement when he talks about the U.S. SLBM and bomber forces as "insurance"); and CPR strategic capability should be dramatically improved over the present (an ICBM force, and a doubling at least in the size of the new CCS-2 IRBM deployment). However, there is nothing on the horizon for the 1980s, beyond the two major items specified immediately above, which should alter the principal characteristics of the known strategic world. Selective local nuclearization-- the proliferation dimension--should have no interdictive implication for superpower strategic relations, beyond the impact of such nuclearization upon the incidence and character of local crises that might involve the superpowers. Nuclear-armed South African Buccaneers might be bad news for a Cuban port manager at Beira in 1987, but they are of close to zero relevance to officials in Washington and Moscow charged with

strategic nuclear planning (although it has to be admitted that the Soviet nuclear targeting community probably would be moved to divert a very tiny fraction of its available warhead resources to Pretoria, Johannesburg, Durban and Cape Town).

For the superpowers the significance of local nuclearization cannot plausibly (for the 1980s, at least) be held to lie in the risks posed to superpower homelands (or even to foreign interests) by new nuclear-weapon capabilities, rather the risks lie in the arena of the possibly enhanced danger of a direct superpower conflict.*

Strategic Arms Control--Or, Will SALT 3 be Different from SALTs 1 and 2?

For SALT 3 to be dramatically different from SALTs 1 and 2 there will have to be both a dramatic turn-around in U.S. strategic programming and a marked rise in the skill of U.S. negotiators. The kind of proliferation "events" discussed below (public) nuclear-weapon acquisition by, say, Israel and Yugoslavia are very unlikely to influence the negotiations for a SALT 3 in the early-to-mid 1980s. The numerical scale of such proliferation would be relatively so miniscule that it would not impact upon Soviet-American discussions concerning SNDV force-level draw-down.

The SALT environment of the 1980s (presuming "successful" termination of the SALT 2 exercise in 1978/9 and Senate ratification) will continue to be dominated by bilateral concerns. For the negotiation of SALT 3, it is really only the mature proliferators, the U.K., France

*Some analysts worry about anonymous attack dangers--that is their privilege.

and the CPR, that can be of concern. On the basis of eight and a half years SALT experience, it is appropriate to comment that the Soviet Union appears to view the British and French nuclear deterrents in much the way that it views American forward-based systems (FBS) in Europe--as handy perennial negotiating points, but not as issues that need to be accommodated in a definitive way.

The growing Chinese strategic nuclear threat may be cited as a phenomenon which could cause the Soviet Union to wish to recast the SALT framework--and particularly the detailed provisions of the ABM treaty of 1972. But, that threat may not grow at a great pace in the 1980s (given the non-military demands upon Chinese resources); the Soviets may be confident of their anti-Chinese preemptive offensive capability; and, finally, the Soviets may be very uncertain that they could cope with likely (or possible) American reactions to Soviet anti-Chinese BMD deployment. More to the point, perhaps, the strongest Soviet incentive to rewrite or abrogate the ABM Treaty is likely to stem not from anticipation of a Chinese (still less an Iranian) IR/ICBM threat, but rather from the calculation that BMD offers the most cost-effective route to neutralize an American MX ICBM deployment. Should the Soviet Union develop conventional (interceptor missiles--assisted by boost/mid course optical/infra-red detection) or directed energy BMD systems that are judged (a) to offer a very superior promise of performance, and which (b) seem unlikely easily to be neutralized by offsetting/bypassing American weapon technology, then the days of

the ABM Treaty as we know it would surely be numbered. An MX system, deployed in a sensible basing mode (i.e., probably not in continuously hardened [to an expected nominal value of 600 psi] trenches) could (and should) pose major problems for Soviet defense planners. In fact, as of 1978, laser BMD options look sufficiently attractive for the very late 1980s, and certainly thereafter, that the ABM Treaty, as it is today, seems close-to-certain to fall victim to technological advance.

Although it seems unlikely that the Soviet Union would be friendly to the idea of redesigning the SALT framework so as to accommodate the participation of other nuclear weapon states (one of the early merits of SALT for the Soviet Union was its implicit conferral of co-equal superpower status), Soviet thinking on the subject of SALT-related matters might be revised non-marginally were nuclear proliferation to become an explosive process in the 1980s. It seems improbable that Iranian, South Korean, South African, etc., proliferation--considered in isolation--would be likely to move the Soviet Union to redesign its approach to SALT (these instances are simply trivial in their implications by comparison with the objective threat posed by the United States). But, if in the space of five or six years the world saw an expansion of nuclear-weapon states from the current six to, say, fifteen or twenty, then we should anticipate a different Soviet (and perhaps American) attitude towards BMD (inter alia). Initially, of course, the principal threat (in terms of capability) would rest in air-breathing vehicles--and particularly

in nuclear-capable tactical aircraft: it would not repose in the IRBMs or ICBMs to which BMD would be relevant. Given its Heartland location, the short legs of first generation nuclear delivery vehicles, and the extant combustible political material, one should anticipate a more far reaching Soviet policy response to extensive nuclear proliferation than should be the case for the United States.

Following inter-war precedent, it is possible that SALT agreements after the mid-1980s will have to contain an escalator clause. Specifically, the High Contracting Parties to SALT treaties would be permitted to proceed with defense programs that were oriented towards third parties, but the other SALT signatories, as a consequence, would be allowed to procure compensating weaponry. It is tempting to argue that the superpowers, in a proliferated world, should be encouraged to purchase thin area BMD systems. However, the kind of BMD systems that look feasible for the 1990s could be difficult to degrade to the point that they were of obvious relevance only to non-superpower threats. It should not be forgotten that for the USSR, unlike the USA, a response in active and passive defenses to an increasingly proliferated world does not require any revolution in strategic doctrine. The Soviet defense community already believes that the first duty of a defense establishment is the defense of the homeland. PVO Strany facing South and South-Eastwards could be in need of thickening, should nuclear proliferation in Asia and Africa proceed apace. But, Soviet military doctrine and posture happen already, fortuitously, to be in a "proliferation alerted" mode.

The SALT environment of the period 1985-95 may be predicted in detail with some confidence in 1978. The environment is being placed in considerable peril by the Carter Administration. During the final years of a SALT 2 Treaty, the United States is going to have to take some decisions concerning the future of its land-based missile force. Even should the Soviets be prepared to endorse equal aggregates in, say, SNDVs, for SALT 3, it seems unlikely that the United States will be able to sustain a numerically crudely equal force posture. By 1985, the terminating year for SALT 2, the MX ICBM program probably will be long dead (or might still barely be breathing in an Advanced ICBM Program of some variety, which could not bring forth operational missiles in useful numbers for six years or so--in the absence of crash programs)--meaning that the policy-relevant question will be "how soon does the United States phase out its ICBM force altogether?" Even if the Soviet Union agrees, for example, to a common aggregate ceiling of, say, 2,000 SNDVs for SALT 3, strategic rationalists in the United States will be very unhappy were close to a thousand of those vehicles to comprise vulnerable ICBMs in silos. (The period 1978-1985 should see Soviet ICBM CEP improve from < 0.2 nm [the SS-19] to the $0.1 - 0.15$ nm range [on fifth generation systems]. In short, it is difficult to see how the U.S. would make use of an SNDV allocation of close to 2,000 for the period, say, 1986-1995. It is as close to a certainty as anything can be that compensation would not be sought via vast numerical increases in the SLBM and manned bomber/ALCM carrier forces.

The great folly of not attending in time to the prospective vulnerability of the silo-housed ICBM force has prevented the securing of a worthwhile SALT 2 Treaty, and will be apparent for all to see by 1984-85. More likely than not SALT 3 will prove to be beyond anybody's competence to negotiate, because of the manifest deficiencies in the U.S. strategic posture: the Soviet Union will not give arms control credit for paper programs. Secretary of Defense Harold Brown has been arguing, very recently, that--by way of contrast to the thrust of this discussion--the United States in fact will dispose a hard-target counterforce capability in the mid-1980s superior to that of the Soviet SRF. His reasoning is that American cruise missiles with a CEP of approximately 0.005 nm will provide a massively impressive tardy hard-target counterforce capability. The major problem with Brown's logic is that unlike ballistic missiles, at present at least, ALCMs will be vulnerable to active defenses. With a SALT 2 Protocol ALCM range limitation of 2,500 kms., American ALCM-carriers, in many instances, will have to offer themselves to the hazard of Soviet barrier air defenses. (As a historical note, the U.S. defense community could do worse than study how the RAF learned to cope with the air-breathing threat posed by the V-1 which is an analogous item [the mach number differential between the first generation ALCM and the V-1 is not very great]. Compared with ballistic missiles, in the absence of serious BMD, or the B-1 with its on-board ECM package, cruise missiles prudently have to be judged a low-confidence element in the strategic posture.

It seems improbable that the Soviet Union will view the hard-target counterforce promise of U.S. ALCMs as sufficient reason to agree to a major draw-down in land-based missile forces in SALT 3. If this prediction is accurate, U.S. negotiators will face an impossible task in seeking a follow-on to SALT 2. The lack of bargaining clout which precluded any success in March 1977 (with the initial comprehensive proposals of the Carter Administration) would apply with even greater strength in 1983 or 1984, looking to a SALT 3. Overall, the SALT environment for this discussion does not look very promising. Indeed, it appears unlikely that even the cosmetic agreements of SALTs 1 and 2 genus will be negotiable for a SALT 3. By the mid-1980s, Soviet strategic promise will have become performance, while American promise will remain as promise. Given that the SALT process registers actual, and plausible prospective, facts--rather than restructures the strategic environment--it is difficult to see how SALT can contribute very much to the bilateral superpower management of a possibly more dangerous proliferated world in the late 1980s and the 1990s. In a proliferated world, superpower strategic dialogue should be even more important than it might have been in the 1970s. Unfortunately, the eight and a half years of SALT endured thus far have not seen a strategic dialogue--by any reasonable definition (in English or French): there has not even been a dialogue des sources. The Soviets, consistently, have declined to offer technical details on their weapon systems (or, when they have, they have offered

deliberately misleading extractions from Western strategic literature). Moreover, Soviet negotiators have declined to engage in a conceptual interface with their American counterparts.

Stability Issues

Stability, like peace and order, is one of those concepts that we know we are for, even if we are not certain quite what it means. Strategic theorists in the late 1950s and early 1960s understood very well that strategic stability was a mixed blessing. In terms of strategic logic, stability at the strategic nuclear level meant that the world should be safe for the prosecution of theater conflict. French strategic reasoning vis à vis the force de frappe in part addressed the stability dilemma. French theorists claimed that the existence of independent centers for nuclear use decision-making added a desirable element of instability, thereby enhancing stability (a Gallic paradox!). (Those readers with some interest in the history of ideas may care to reflect upon the course of American strategic theoretical debates from 1956-1959. Serious anticipation of strategic instability helped to dampen enthusiasm for theater-nuclear war-fighting strategies.)

For all the ocean of ink that has been devoted to defense analysis and strategic theory over the past quarter century, there has never been a rigorous discussion of the meaning of stability. Stability, stable, de-stabilizing, and the like are lightly deployed by debating contenders without definition, or even minimal explanation.

Stability has been elevated to a value--after all, can anybody (save for a few very brave French theorists) be opposed to stability?

By way of a modest first cut at stability issues, the following comprise the most frequent uses of the term (together with a necessary minimum of illustrative detail):

1. Pre-crisis (or, perhaps international political) stability: a political/military security condition wherein the likelihood of crisis outbreak (for any reason--premeditated or inadvertent) is believed widely to be very low.
2. Crisis stability: a condition wherein all parties to an international crisis (even an acute international crisis) see no advantage in effecting a military "break-out". (Crisis instability would be fostered logically, by a process of mobilization that could not easily be placed in a "hold" mode, and by a hard-target counterforce capability that could be interpreted by an adversary as placing him in a "use them [his ICBMs], or lose them" dilemma).
3. Arms race stability: a condition of competition wherein neither party felt strongly motivated to effect rapid changes in the quantity or quality of its armaments.
4. Political stability: (specialized definition--given our strategic focus): a condition of competition wherein neither party feels moved by political perceptual considerations to effect large changes in the character or quantity of strategic programs (see the FY 1979 DoD Posture Statement, with its brief discussion of how the U.S. should not seek to match the Soviet Union in hard-target counterforce or in civil defense).
5. Stability may refer simply to an absence of change (e.g. some people may see a world that is characterized by seven, eight, nine--and more--nuclear-weapon states as being inherently less stable than a world of six [and a half--if we choose to count Israel] nuclear weapon states.)
6. Stability often is equated with change of a tolerable kind and degree. People may be located who believe that: the international security system (to stretch terminology a little) thus far has accommodated six nuclear-weapon states without the occurrence of Gotterdamung; proliferation is inevitable,

but is likely to be slow (and will not take the form of explosive proliferation chains); nuclear weapon use in (American perspective) regional conflict probably is inevitable, but this will not mean the end of the structures of security that we know; and, overall, that a world that can learn to live with six nuclear-weapon states can probably learn to live with twelve or more (anyway, since we will have no choice in the matter, we will have to learn to live with new nuclear-weapon states).

7. Stability is believed by some analysts to be an inherent quality in certain weapons and postures. At different times, heavy artillery, tanks, bomber aircraft, accurate ICBMs, MIRVs, and area ABMs, have been judged by the arms controllers of the period to be inherently de-stabilizing. (An MX ICBM system, appropriately deployed, could be assessed to be inherently stabilizing in that, through its MAP basing mode, it should deter attack upon itself: those who would/will argue that MX is destabilizing because it poses a (healthy) threat to the very large fraction of Soviet strategic payload that reposes in silo-housed ICBMs, have to cope with the rejoinder that an MXed strategic environment deprives the Soviet Union of its major sensible counterforce target array [the MX ICBM debate has not reached this level of detail yet--but it probably will]).
8. Stability may be (and is) used in such a way that it lacks for any specific meaning. Stability, as a value, is employed ascriptively to glorify any posture, weapon or policy position that is found to be convenient at the moment. Stability thus transcends rational discussion and becomes a debased ideology.
9. System stability may be held, tautologically, to pertain to any system (political, security) wherein it takes large shocks to produce noticeable changes. An unstable system would be one wherein small shocks produce large changes.
10. Strategic stability, as a concept employed by American defense professionals, tends to refer to a strategic weapon context wherein the first strike bonus is either negative or very low (as, for example, has to be the case if an unMIRVed ICBM force launches a hard-target counterforce strike against a silo-housed ICBM force of similar size).

Analysts of nuclear proliferation, no less than analysts of SALT, MBFR and Soviet-American strategic competition more generally, should be encouraged to use the seductive concept of stability with some caution. The imperfect, non-exclusive, taxonomy offered above will be integrated with the details of our proliferation concerns at a later stage in the current program of Hudson's proliferation endeavors. At this stage, it seems useful simply to identify the different ways in which the stability concept is being employed.

Illustrative Scenarios

In common with General Gallois, this author is uncertain whether or not the (1978) thirty-three year (claimed) "tradition" of nuclear non-use is or is not of net benefit to international security. This author admits to some difficulty in discerning a moral distinction between, say, napalm and nuclear weapons. Furthermore, given that the promise of (constrained) nuclear use is the backstop to American strategy, globally, it is not self-evident that a "tradition" of non-use of nuclear weapons works to the advantage of international security (by American definition). If nuclear weapons are critically important to the perceived worth of American security guarantees, world-wide, there may be a case for demonstrating, very occasionally, that these are real weapons that work. (For example, popular misunderstanding notwithstanding, there were several occasions during the Korean War when American nuclear use would have been dramatically effective in terms of the direct battlefield results).

The scenario designs outlined below invite the understandable "nuclear incredulity" which is the product of those thirty-three years of non-use. Despite the strong nuclear element in U.S. (and Soviet) defense policy, it is difficult to design conflict scenarios involving the actual use of nuclear weapons in which any readership can discern strongly plausible elements.

I. An Israeli Nuclear-Weapon Scenario

Possible Premises: By 1988 Israel has 50-60 nuclear weapons. Contrary to some prior academic (and political) speculation, certain U.S. knowledge of the existence of these weapons does not alter the structure of U.S.-Israeli relations. It is in nobody's interest to publicize the existence of this arsenal.

- Front-line Arab states do not wish to advertise their own relative weakness.
- Israel does not wish to place Arab governments in a situation where public pressure will compel a decision to acquire nuclear weapons.
- The Soviet Union does not wish to be placed in the position of having to give a public answer to Arab (confrontation or rejection front--depending upon the political details of the preferred scenario) states who request/demand an offsetting nuclear-weapon capability or very public and specific nuclear guarantees.

The Crisis of 1988

1. To the surprise of cynical analysts, certain knowledge of an Israeli nuclear capability comes to hand in 1986-87. (The surprise is the no less certain knowledge that Israel did not, prior to that time, have such a capability on a timescale relevant to likely crisis dynamics.) In response to this knowledge, the United States

- [Alt. 1] - expresses very, very strong disapproval, but endorses the wish list for conventional armaments of Zahal, thereby, it is hoped, minimizing the prospect of Israel ever having to brandish or use its nuclear weapons.
- [Alt. 2] - declares publicly, in all but name, that Israel has become a pariah state (for doing what the United States and [at least] five other countries have done?), that henceforth can claim no special security connection with the United States. This declaration is both prudential in motivation (with the East-West military balances being in their 1987-88 condition, the NATO-European connection is deemed dangerous enough, without accepting uncertain new risks in the Middle East), and is believed in Washington to be essential if anti-proliferation policy is not to become a farce.
- [Alt. 3] - tells the Israelis, very privately, that the world has just been changed dramatically, and that although the creation of public waves will be eschewed (for fear lest Arab governments are compelled to reciprocate), Washington will disassociate itself unambiguously from any Israeli nuclear threats/weapon use and will leave Israel, alone, to cope with the consequences of such threats/weapon use--whatever those consequences may prove to be. The United States would hope that the Israeli nuclear acquisition decision might be reversible, and--as a possibility--Washington would consider offering a formal security guarantee (of Israel proper) as a sweetener/bribe for (U.S. verified) Israeli denuclearization.
- [Alt. 4] - cannot decide what to do and hence does nothing.

2. Unfortunately, perhaps, certain knowledge of the Israeli nuclear capability remains a closely held secret. Hence the Middle East War which breaks out a month prior to the U.S. presidential election of November 1988 finds most of the interested parties intensely suspicious, but not certain, of the Israeli "ace in the hole"/or joker. The incumbent U.S. President, facing a very strong challenge from the Right (to the effect that he and his predecessors were neglecting/had neglected the national security), had judged that the Summer and Fall of 1988 was an inopportune period to place public distance between Washington and Jerusalem. That President did intend to deal with the problem, but not until 1989--alas, history moved too fast. The Palestinian state created in 1982 as a consequence of brutal American pressure on Israel (and which was the precipitating cause of the Israeli nuclear weapon capability) fulfilled many of the nightmares of apparently paranoid Israelis.

3. The Israel of 1988 is self-confident of its strength, still bitter over the protracted political defeat that followed the October War of 1973, and is determined to establish the rules for the new contest.

The political setting for the conflict is as follows:

- Notwithstanding careful treaty drafting (on the Israeli part), the state of Palestine proves to be beyond Israeli security control (the Soviet, Cuban and East German embassies in Nablus have hundreds of gardeners, chauffeurs and the rest).
- The government of the state of Palestine, which by 1983-84 was securely in the hands of old comrades from Fatah-land (the Palestinian historical experience of recent decades proved, unsurprisingly, to be unfriendly to democratic

procedures), made it very apparent that the current arrangement of a rump Palestine was viewed as being but a milestone on the road to bigger and better things. Other Arab countries were cautious in their endorsement of this sentiment. On the one hand they could not deny it as worthy aspiration, but on the other hand they monitored Israeli debate and harbored few illusions as to the risks that they might be running.

- Whether it liked it or not, the Soviet Union found itself cast in the practical role as principal guarantor of "Palestine" against the consequences of (justified) Israeli nervousness. The Soviets found that they had a tiger by the tail. Despite very stern private warnings against adventurism and other crimes, the Soviets knew that should Palestine precipitate an Israeli intervention (which would be bound to succeed--against the PLA [Palestine Liberation Army]), front-line Arab states such as Syria, Egypt (which came under radically new management in the early 1980s) and Jordan could not simply stand aside and permit Israeli reoccupation of the West Bank. Moreover, should Israel decide not to confine itself to educating the Palestinians, but in addition seek to teach the Arab world more broadly that intervention did not pay, then Soviet policy (and reputation) of long-standing would be on the line more directly than had been the case even in 1973.

4. Palestine decides that it has little to lose by a forward policy, and a great deal to gain. It should be understood that the leaders of Palestine constitute a government only in a rather formalistic sense. (Some indifferent historian, looking at the new state of Palestine, is moved to draw a poor analogy with Eighteenth Century Prussia--"an army with a country"). These are men with a mission, scarred indelibly by a generation in (or responsible for) refugee camps, contemptuous and bitterly resentful of their many betrayals by Arab governments, and qualified for their new roles by personal bravery and a total ruthlessness. (In short, they have much in common with an earlier generation of Israelis).

These men have no clear vision of how a Greater Palestine is to be effected, but they do sense that a general conflagration, that surely must bring the Soviet Union directly into the action, should produce a far more favorable post-war environment. Also, there is something to the argument that the policy of the new Palestine is really beyond strategic calculation. The Palestinian leaders are quite unable to abandon the habits and faith of a lifetime: indeed, the armed struggle has become such a way of life that it has become almost an end in itself.

5. Sensible Israelis anticipated most of the above developments, but--in ways not totally dissimilar from President Thieu's dilemma in October-January 1972-73--a point comes when pressure works. Unlike President Thieu, Israeli leaders, in 1980, had been confident that they, unaided, could cope with most security contingencies, and perhaps like Thieu--they were convinced that if the going became really rough, the United States would not stand idly by!^{*} Israelis had read the U.S. DoD Posture Statements for FYs 1979, 1980, 1981, and 1982, and found comfort therein. Some Israeli strategists familiar with the U.S. domestic defense debate did express concern over probable American crisis-managerial and escalation-control capability for the middle and late 1980s (i.e., "should Israel be faced with a Soviet threat, as a consequence of events unleashed by the creation of a state of Palestine, how robust should we expect the Americans to be?"), but these concerns were not accorded much weight.

^{*}President Thieu, of course, did not factor Watergate into his calculation.

6. To abbreviate and summarize developments:

- The PLA offers massive provocation to Israel.
- Israel responds by invading Palestine.
- Arab volunteers move from Syria, through Jordan, to aid the PLA.
- Egypt and Syria open second and third fronts in Sinai and the Golan Heights.
- Israel decides that fortune favors the brave and that the slide in its security condition over the past fifteen years can be arrested if, for once, all major Arab actions are defeated, unambiguously. This time, Israelis determine, they are going to hold victory parades through Damascus and Cairo, and they are going to paint the Star of David on the Pyramids and on the Aswan High Dam.
- Zahal has made good use of the period 1973-88. While holding Syrian forces on the Golan, Israeli troops effect a dramatic right flanking movement through Jordan and crush Syrian resistance. Israeli casualties are high, but Israel has appreciated that Liddell-Hart, in important respects, was a false prophet. The highest of stakes exact a high price in blood.
- International pressures are predictable. The United States publicly requests Israeli self-restraint, and privately insists upon it.
- BREAK POINT: What effect does/would U.S./Soviet knowledge of the Israeli nuclear capability have upon superpower diplomacy at this point? Perhaps more relevant still, what effect does this capability have upon Israeli policy? Also of interest is the question whether or not the U.S. and/or Israel would want the USSR to know about its nuclear capability at this juncture.
- Israel tells the world that it has been the victim of aggression, that it is going to punish that aggression as it deems fit, and that any country which lends aid or succor to its immediate enemies will be placing itself at severe risk.
- Having dealt definitively with Syria, Israel launches an all out offensive against Egypt.

- The Soviet Union announces that its patience is exhausted and that it will send forces to defend Egypt.* The Israelis say that those forces come at their own risk. Neither party is bluffing: but the Israelis do not quite believe that the Soviet Union would really send in combat troops, and the Soviets do not believe that Israel would really take on those forces in earnest.
- Despite an Israeli announcement that it is imposing a blockade of the Egyptian coast and of entry into Egyptian air-space, the Soviets attempt to fly in two airborne divisions in AN-22s. The Israelis shoot down more than 90 percent of these AN-22s. (Some members of the NSC staff in Washington had suggested to the President that the Sixth Fleet provide air cover for the Soviet troop lift). Israel voices public regret at the loss of life imposed, but explains to the world that it is fighting for its life and is not playing at war.
- The relatively few Soviet troops which do survive the perilous air passage (in addition to some Iraqi, Algerian and Cuban volunteers) into Egypt are overtaken by the general Egyptian collapse. Israel reminds the world it is at war (in a legal sense with Egypt) and that it intends to dictate the structure of the peace (as befits the victor).
- BREAK POINT: The Soviet Union is in a terrible dilemma. Its local options are close to non-existent. A sea-borne expeditionary force is moving towards Egypt, but the Israelis have announced very clearly that that force will be interdicted at sea, and will have to fight for its existence the moment it lands. What do the Soviets do next? Thus far, let it be noted, on the surface at least this is a non-nuclear scenario--no nuclear threats have been issued. What are the Soviet options?
 - Accept the military defeat, pro tem, and hope that Israel has overreached itself politically.
 - Persist with the sea-borne expeditionary force option, providing air cover with the Mediterranean fleet carriers and by Backfires and Badgers flying at long range.
 - Seek to impose a humiliating political defeat upon Israel (and by implication its major foreign supporter, the United States) by the issuance of a nuclear ultimatum. This defeat should be all the more dramatic given the scale of the Israeli victory thus far, while the nuclear

*I assume that, prior to this crisis, the Soviet Union has only a token military presence in Egypt. This may be unrealistic, given the degree of Soviet arrogance displayed in 1978 over Ethiopia. The U.S. is being told by the Soviet Union that we should be grateful that there are only Cuban, and not Russian troops, fighting in Ethiopia!

ultimatum may be deemed (at least semi-) legitimate given the large scale loss of Soviet life (in undefended troop-carrying aircraft), and (perhaps) publication of the fact that Israel is a nuclear-armed country*.

7. Discussion point: What influence does Soviet knowledge of the Israeli nuclear-weapon capability have upon Soviet policy choice?

- On the one hand, such knowledge might legitimize the Soviets moving the crisis into the nuclear threat arena. But, the disparity in nuclear capability is so dramatic that the conflict remains a David-Goliath one.
- On the other hand, such knowledge must mean an enhanced Soviet anxiety over the character of risks that they could be running.
- Also, in this scenario, given that the Israelis have local non-nuclear escalation dominance, it is the Soviets who must be the first to issue nuclear threats.

8. The Soviets have some not unreasonable hope that should they escalate the crisis to the level of nuclear threat, American pressure upon Israel to accede to "world opinion" would be far more strong than otherwise would be the case.

9. Suspecting very strongly (or knowing) that Israel has a small but ready nuclear weapon (and delivery) capability, the Soviet Union decides to try a "high ground" approach. In somewhat Khrushchevian language, Israel is informed that it must accept a ceasefire immediately and agree to withdraw its forces back to the geographical status quo ante bellum, or "rockets will fly."

10. Discussion point: Prior to issuing this bold ultimatum, what kind of calculations have Soviet leaders made concerning probable American reactions?--and, how were those putative reactions estimated?

*A critical issue in the design of this scenario is that of knowledge, as opposed to suspicion, of the Israeli nuclear arsenal--do the Soviets know?--or only suspect?

Likely Soviet considerations include the following:

- Notwithstanding American anger at Israel for (a) precipitating the most dangerous developments in the crisis, and (b) acquiring nuclear weapons, the fact will be that Israel is confronted with an explicit Soviet nuclear threat.
- Israelis, fighting for their existence, are unlikely to accede to Soviet demands. Hence, there is no room for bluff in this crisis. If, as expected, the Israelis deliver no/or a rude response, the Soviet Union is going to have to execute a nuclear strike against Israel.
- How effective, militarily, could such a strike be? The danger of retaliation against the Soviet Union probably would be judged to be manageable. The Soviet first strike could be totally effective--while PVO Strany on maximum alert, and duly augmented in its South-facing strength, should be able to keep the weight of an Israeli attack down to a near-trivial level.*
- But, where--if at all--does the United States fit into this scenario?

11. Discussion points: Are the Soviets deterred from issuing a nuclear ultimatum to Israel for reason of their anticipation of an American counter-ultimatum? How likely is it that there would be an American counter-ultimatum? The Soviets must know that no American President could be indifferent to Soviet nuclear threats to Israel, nor--even less--to Soviet nuclear strikes against Israel (almost regardless of the detail of the preceding crisis).

12. If the Soviet Union issues its nuclear ultimatum to Israel, what--if anything--does the United States do?

*This discussion presumes unintelligent Israelis--a dubious exercise. We should consider how intelligent Israelis would prepare a capability to damage the Soviet Union/valued Soviet assets with nuclear weapons.

- [Alt. 1] - Nothing, initially. The President might hope that (a) an Israeli nuclear counter-ultimatum would cool Soviet ardor, or that (b) should a nuclear exchange ensue, it would not produce a result which looked like a clear victory for the Soviet Union.
- [Alt. 2] - The President stands four-square behind Israel and states that a nuclear attack upon Israel would be considered a nuclear attack upon the United States.
- [Alt. 3] - The President, somewhat ambiguously, says that the United States will not tolerate Soviet nuclear threats/action against Israel.
- [Alt. 4] - The President appeals to sanity and calls for in-place cease-fire.*

13. BREAK POINT: It is evident that all relevant major actors in this scenario are highly motivated to press their interests. At this critical juncture, with the Soviets considering nuclear threats/use, the Israelis contemplating likely responses to Soviet escalatory initiatives, and the United States aware that it might be imprudent to permit the Soviet Union to engage Israel in a bilateral nuclear crisis, perception of the superpower strategic balance should begin to matter a great deal. What could a U.S. President say? If you attack Israel with nuclear weapons we will....What? Ideally, a President would be able to indicate that the United States could initiate a process of nuclear escalation that it could hope to conclude on favorable terms, but the Soviet Union could not.

14. As a tentative prediction, it is not unreasonable to argue that the Soviet Politburo, late in 1988, will examine American strategic posture and doctrine (and the fact that America's NATO allies are all disassociating themselves from Israeli [and possible American] policy)

*As a Soviet politician I would not like this, because it would leave Israel holding all the marbles.

and decide that it is not deterred.

15. The Israeli nuclear deterrent, in fact, does nothing for Israeli security. Israeli conventional forces are more than capable of coping with Arab belligerents. The nuclear "deterrent" really is not needed to overawe Arabs, while it serves as a legitimiz^{*}er for the Soviets to apply nuclear pressure. A major Soviet military problem in the Middle East is that they lack for plausible escalation connections between the commitment of lightly armed (airborne) forces and heavy nuclear threats. An Israeli nuclear-weapon capability provides the Soviets with the public rationale they probably need to bridge the gap.

Further Thoughts and Afterthoughts on the Israeli Scenario

The principal scenario developed above was biased in its structure so as to maximize Soviet strategic problems. Looking to the 1980s that bias seems reasonable, given the evolving complex local military balance(s) in the Middle East. Perhaps more challenging to American policy would be a context wherein the initial source of nuclear employment threats (and conceivably even use) would stem from an Israel whose conventional laager had been penetrated. Preventing Soviet intervention in defense of Arab states that faced ignominious defeat (as above) is one thing, coming through with a nuclear guarantee for a nuclear-armed Israel on the brink of conventional collapse could be something else entirely. Whether or not a local friend or ally is nuclear-armed should have no

*Though an imperfect one.

bearing upon the quality of the American political commitment--provided that nuclear armament did not contribute very obviously to the dynamics of the pre-war crisis (and that could be difficult to determine, from a distance). If Israel's physical security is a vital interest of the United States--which is debatable--it is difficult to see how Israeli nuclear weapons can affect that judgment. (British citizens like to feel that the United States is committed to the defense of the United Kingdom--British nuclear weapons do not intrude at all on that aspiration, and--we hope--commitment.)

The U.S. defense/foreign policy community should perhaps ask itself the question, "What should our policy be towards an ally (or de facto ally) or close friend who creates a nuclear-weapon capability?" This is not to ignore the objection that allies and close friends, secure in their American connection, should not feel the need to acquire nuclear weapons. Each case is different, but the British, French and Israeli (ambiguous) examples do not inspire great confidence in the force of this objection. The British and French did, of course, decide upon their nuclear-weapon programs prior to the popularity of intellectualizing over the evils of proliferation. However, both countries have had ample opportunity to reverse their nuclear-policy courses since. Countries like Iran, South Korea and Taiwan may feel more dependent upon the United States than do Britain, France and Israel, but those countries should also feel less secure in their security next with the United States. To repeat the question, "what should our

policy be towards an ally (or de facto ally--e.g., Yugoslavia or Sweden) or close friend who creates a nuclear-weapon capability?" Consider some alternative answers:

- The U.S. should be obliged, by law, to abrogate all existing bilateral security connections with that country (not all treaties have abrogation clauses, but that is another issue).
- The U.S. should seek to concert international, non-military, sanctions against that country, but should be prepared to undertake unilateral sanctions if need be.
- The U.S. should seek to concert international--in the first instance and unilateral, if need be, in the second instance--military sanctions against that country.
- The U.S. should seek, pragmatically, to attempt to persuade the country in question to abandon the nuclear-weapon path (employing both sticks and carrots).
- The U.S. really should not attempt to design a general policy. Each case should be considered on its merits when and if the time comes.

It seems blindingly obvious that for all the sound and fury, policy statements, reports and the like, the United States--for very good reasons--is not, and cannot afford to be, deadly earnest over preventing the spread of nuclear weapons. Such prevention is an important policy goal--but just how important? Is it sufficiently important for a U.S. Government to be willing to fight to enforce it? A vital national interest always has been defined as an interest deemed worthy of actual combat support. This author cannot think of a single candidate nuclear-proliferator that would be in any danger of an American military response.

This is not a criticism,* rather is it a reminder of where our anti-proliferation policy really stands on our hierarchy of policy values.

Moving into the practical realm, one can envisage unilateral American (economic, political, and military supply) sanctions being applied against ally/friend proliferators, but such sanctions can be applied for many offenses. Israel faced sanctions when it was in a position to deliver the coup de grace to the Egyptian Army in 1973; Turkey has endured American sanctions as a consequence of its invasion of Cyprus in 1974: are those offenses comparable to announcement/detonation of a nuclear-weapon capability? Two questions might be posed. First, what would the United States like to do in the event of announcement of an Israeli, Iranian, South Korean (inter alia) "bomb"? Second, what factors plausibly could attenuate the strength of the U.S. preferred response? By way of analogy, there is little point in announcing a new policy on conventional arms transfers, and--in the same announcement--specifying exceptions through which any official or politician can drive a truck. Is one serious about anti-proliferation policy or is one not? This author suspects that the U.S. arms control and defense community believes that it is serious, but in fact has neglected to think through just what being serious could and should mean.

When the world was better ordered than promises to be the case in the 1980s and 1990s, the British Foreign Office included in its diplomatic signaling repertoire a carefully graduated series of expressions of concern. When some Sheikdom was on the receiving end of a

*Save, perhaps, with hypothetical respect to Uganda and Libya.

message that said "Her Britannic Majesty's Government is extremely displeased...etc.", the recipient understood (or should have understood) that the next message would be delivered by gunboat. In the absence of the sanction of force, missionaries could be turned into "missionary bisque" or missionary au poivre, according to local culinary/gastronomic custom.* Indeed much has changed since the late Nineteenth Century, but very serious policy ends cannot be secured without the sanction of force.

This discussion could be held to have wandered from its mandate, but such might be a premature judgment. Here we are discussing American policy towards proliferators, which should tell us something about how the United States would likely react were a nuclear-armed ally or friend to find itself in very serious trouble. There may be a case to be made for hypocrisy. In the same way that NATO and the Warsaw Pact could sign a "no first use" of nuclear weapons convention--that all the signatories would understand to be meaningless--so the United States could, and perhaps should, pretend to be willing to consider any and all options in the event that nuclear proliferation occurs. The latter would be as empty of substance as the former, but it might contribute usefully to a climate more hostile to proliferation. (Just for the record, this author is very unfriendly to both declaratory policy ideas--almost invariably history has shown bluff to be a poor tactic in international politics.)

*No substantive significance should be attached to this example. Theological imperialists merit local justice.

To refocus the discussion, let us enquire as to what United States anti-proliferation policy could be held to imply in an Arab-Israeli scenario. Is the United States so opposed to nuclear proliferation that, should Israel even face conventional defeat, it would prefer Israel to be defeated rather than employ home-made nuclear weapons? Two objections should be noted at once: first, through the 1980s it is very unlikely that Israel could be defeated conventionally by any combination of Arab states (but, defense analysts have been wrong before); second, even if we take the prospect of such defeat seriously, many people have difficulty seeing what nuclear threat/employment could accomplish for Israel at that late stage of the conflict. These objections are far from trivial, but they should not prevent us from exploring the critical question of American defense-policy behavior in a local (potentially nuclear) crisis. These questions are the following:

- In extremis, the United States would employ nuclear weapons in self-defense--why not Israel, Iran, South Africa, South Korea, etc.? What is unique about the United States?
- Would the United States be more willing to acquiesce in an Israeli or Iranian defeat, if those countries were known to possess nuclear weapons?
- U.S. intervention in a local crisis against Powers backed by the Soviet Union (say on behalf of Somalia--should extant assurances prove unduly fragile) should have a sufficiently decisive effect that a countervailing Soviet forward deployment should be anticipated. Is the United States more or less likely to intervene, knowing that its local client has an as yet unused nuclear-weapon capability?

A problem discerned by this author, which pertains both to himself and (he believes) to the U.S. arms control and defense community generally, is that discussion--as in this paper--of Soviet-American strategic interaction in a proliferated world, is an unduly intellectual exercise. Although the World now contains six nuclear-weapon states, we are trained to think in duopolistic terms. To have resort to one of Herman Kahn's favorite bon mots, we have a "trained incapacity" to deal with a proliferated world. Notwithstanding the many attractive (to us) arguments that serve, in sum, to condemn nuclear proliferation, one suspects that beneath the scholarly and policy rationales is the extra-strategic, and extra-political, belief that only Super (and, perhaps, Great) Powers should have nuclear weapons. The United States has been so used to a "Daddy" role that realization of that fact, let alone realization of its real-world erosion, is very difficult to accommodate. The point of these tendentious comments is to suggest that when, in 1978, we attempt to think through nuclear crises in the 1980s and 1990s that involve regional nuclear-weapon states, we have difficulty according legitimacy to Israeli, or Iranian, or South Korean (etc.) decision-making on nuclear threat and use. This difficulty, I suggest, stems in part from a deeply-ingrained belief that only the "biggest boys" really are entitled to take such decisions. To cope intelligently with a proliferated world, probably we will have to await the emergence into policy-making positions in the U.S. Government of men and women who are not programmed in their strategic culture to believe that nuclear crises are duopolistic superpower games.

II. A Yugoslavian Nuclear-Weapon Scenario

Introduction

"Yugoslavian break-up", like its ugly sister, "Finlandization," has become the last resort of the unimaginative (seq. Oscar Wilde). Yugoslavia is indeed a somewhat artificial state, but its many peoples are apparently united on a number of pertinent negative issues: specifically, a hatred of Russians, Hungarians, Bulgarians and Italians. Rumanians, Greeks and Albanians are somewhat short of being close friends, but they will serve as functional allies.

In all respects save one, Yugoslavian announcement of a nuclear-weapon capability should be welcomed in the West. The exception is the anxiety over domestic political instability within Yugoslavia. (It is not hard to imagine that the Croats would rather use nuclear weapons against the Serbs than they would against the Soviets.) It is reasonable to assume that the Yugoslavian Government understands these very local problems rather better than do American nuclear proliferation "experts" and that it "designs around" major problem areas. Common sense, as well as intensive exposure to the American nuclear proliferation literature, sensitizes officials in Belgrade to the kind of difficulties that they might face. As a consequence, the Yugoslavian Government makes very sure indeed that its nuclear arsenal cannot be seized by Croatian nationalists, and could not easily be neutralized by a Soviet surprise attack.

Official Yugoslav reasoning is not difficult to understand. It is estimated that Yugoslavia is in danger not so much from the threat of domestic turmoil (stemming from ethnic particularism), but rather from the possibility of Soviet intervention in such turmoil. Yugoslavs calculate that even in the event of civil war, the Soviet Union could well be deterred from intervening by reason of: the certainty that such action would be resisted actively by at least a large fraction of the population; and the strong likelihood that such action would catalyze some significant measure of mobilization response on the part of NATO. Yugoslavia is not Czechoslovakia. Yugoslavs believe that a Soviet Union that should be close to being deterred even by a pre-nuclear Yugoslavia, would not be tempted seriously to intervene in a Yugoslavia that was nuclear-armed. The Soviets would be aware that they could not presume a triumphal military passage into an acquiescent Yugoslavia: such passage might have to entail the commitment of more than 40 divisions in what would look like an old-fashioned military invasion (as with the North Vietnamese invasion of South Vietnam in 1972 and 1975, or even the German invasion in 1941). Soviet defense planners might well estimate that a Yugoslavia that took the task of territorial defense very seriously--employing mobilized "civilians" on essentially heroic missions--might just be very serious about employing (survivable) nuclear weapons against an invader.

(Note to the reader: Credibility is not always a matter of estimating the cost/risk calculations of the adversary. Some societies behave against a historical-cultural backcloth such that even nuclear threats carry great plausibility. Yugoslav war casualties, within living memory, were--percentage wise--greater than those of the Soviet Union, and were close to those of Poland. Given the German reprisals against civilians, the Partisan campaign in Yugoslavia was a monstrous crime--morally quite unjustifiable on any basis for estimation known to this author. However, a society which accepts such self-damage clearly has some inherent credibility when it comes to the issuing of nuclear threat in self-defense. With reference to the previous Israeli scenario, this same point applies even more substantially. France's force de frappe, and its attendant rationale of "proportional deterrence" invites skepticism, given recent French history (1940). But, an Israeli Government that said, in extremis we will take a lot of Arabs and (we hope) Soviets with us, would be a very different case. Russians and Israelis have a (recently acquired) historical understanding that military defeat can mean social annihilation. Twentieth-Century history may teach Frenchmen and Dutchmen that one can make a deal with an enemy; Russians Israelis, and Yugoslavs should be expected to think differently.)

Yugoslavia 1987

1. Political Premises: Marshal Tito died in 1983, but this did not lead to the Yugoslavian "break-up" scenario predicted by pessimists in the West. However, it did catalyze the expected succession crisis and encourage Croatian leaders to flex their muscles. For three and a half years promises of, and some action on, constitutional reform, served to contain the domestic danger--while all local parties were extremely nervous lest domestic squabbles promote a Soviet intervention that, ultimately, would be contrary to the interests of all local sides. Nonetheless, by early 1987 it was apparent that the succession regime in Belgrade was both willing and able to insist that its definition of national unity should hold throughout the country. Understanding that time was running out, Croatian nationalists decided to expand

vastly their (terrorist-military) campaign of persuasion and, as their "ace in the hole," to invite Soviet and Soviet-allied military forces to enter Yugoslavia and restore Socialist discipline and enforce the conditions for local self-determination.

Soviet motives to act vis à vis Yugoslavia are substantial, but short of overwhelming (even over Czechoslovakia in 1968, the Politburo had split 7-6 on the decision to intervene). Politically, Moscow is much attracted by the idea of reversing Tito's defection in 1948. The KGB has a long memory--anti-Soviet actions and statements by individual Yugoslavs have not gone unnoticed or unfiled against future opportunity to settle the account. Also, a clear Soviet victory in restoring Yugoslavia to the Soviet empire might have a salutary effect upon perceptions generally of the direction being taken by the tide of history. On the strategic side, some Soviet military deployment in Yugoslavia would greatly increase the pressure that could be put on Italy and Greece, would ease naval operating problems in the Mediterranean, and should reinforce Rumanian incentives to be cautious.

2. The Yugoslav nuclear-weapon program was conducted in very great secrecy. An obvious danger was that premature public disclosure (or private disclosure to the Soviet Union), before the program matured, might trigger the very sequence of events it was designed to discourage--Soviet intervention. In order to preserve the necessary secrecy, much of the weapon fabrication work was conducted in the Chinese Peoples' Republic (CPR)--as were Yugoslavia's two nuclear tests (the various

signatures of which had puzzled Soviet and American monitors of CPR test activity).

3. Strictly speaking, the Yugoslavs did not need to test their nuclear weapon designs, but the Chinese offer of test facilities seemed to be too attractive an offer to refuse. In fact the CPR offered rather more than simply a test site, they also volunteered advice on weapon design.

4. The Yugoslav defense community had to face some severe problems of nuclear doctrine. It was appreciated in Belgrade that the real deterrent value of Yugoslavian nuclear weapons should lie in their weighting the negative column of arguments when and if the Soviet Politburo came to take the decision "to intervene, or not to intervene, in Yugoslavia." The details of prospective employment policy should be relatively unimportant when set against that overall Soviet decision context. In practice, Belgrade discovered that relatively secure delivery means posed rather more problems than did development and testing of the weapons themselves. The aging inventory of (slightly more than) 100 MIG-21 F/PPFs would suffice for tactical delivery of Yugoslavia's first generation of nuclear weapons, but--for the second generation--notwithstanding the severe technical problems of designing a sufficiently efficient weapon, it was decided in Belgrade that Yugoslavia needed cruise missiles. In the mid-1980s, even though the United States was about to deploy its second-generation, supersonic, LRCM, Yugoslavia found that first-generation American LRCM technology was not to be bought "off the shelf."

However, Yugoslavs learn that the American LRCM can virtually be reproduced, if the appropriate sub-technologies (engines/fuel, air-frame, navigation aids/micro-electronics) can only be marshalled and rendered mutually compatible. By 1987, Yugoslavia is well on the road toward acquiring a practicable cruise missile capability. While the world at large is ignorant of Yugoslavia's (CPR-assisted) nuclear-weapon program, Yugoslavia has purchased Swedish, Swiss, West German and Japanese elements of a technology and air-frame package that should, when assembled, constitute a credible LRCM capability. This back channel (close to "gray market") route to the LRCM is made easier by the relaxed Yugoslavian military requirements. Thirty ft. CEP would be "nice to have," but Belgrade would settle for 3 miles. What Yugoslavs wish to tell the Soviet Union is that they have an LRCM that can, not incredibly, reach the Soviet Union and evade the attention of a MIG-29-equipped PVO Strany.

5. Discussion point: Whether or not a Yugoslav nuclear-weapon capability is a case of benign proliferation depends critically upon one's estimate of the care with which Belgrade would safeguard that capability against the vicissitudes of domestic politics. While all things are possible, it seems plausible to suggest that a Yugoslavian Government that had evolved such a program could be trusted to ensure that easy access to the weapon by Croatian or Macedonian nationalists would be no easy matter. (By way of analogy, the U.S. non-proliferation community might be nervous about proliferation by the U.K. in the 1980s on the grounds that Britain was domestically unstable: what if Scottish [the

Tartan Army], Welsh, or Irish [the Provos or worse] obtained access to nuclear weapons?) Admittedly, Britain is not a Balkan "jigsaw-puzzle state" like Yugoslavia, but the analogy is not totally absurd. In the last resort, if one wishes to be extremely rigorous and exclusive, it is difficult to find a state anywhere in the world sufficiently stable domestically as to be "trusted" with nuclear weapons.

It is interesting to compare Yugoslavia with Iran--both countries have an obvious and permanent Soviet threat to counter. Both countries have potentially serious domestic instability problems--and yet the problems, and their regional international ramifications are very different. Iran does have "minority" problems, particularly with the Baluchis, the Kurds and the Arabs, but Iranian balkanization scenarios are quite implausible. The danger in Iran lies in the possibility of the seizure of the organs of central control by a political persuasion hostile to the United States. In Yugoslavia, the case is very different. Croatian (inter alia) nationalism is more serious business than are the regional disaffections in Iran, but the prospects of a Croatian seizure of the organs of Yugoslavian state authority are very close to zero.

It is not obvious that an Iranian nuclear-weapon capability would have a net negative effect upon regional security. Iraq would be suitably nervous*, but probably would seek an offset via a Soviet nuclear guarantee, while Saudi Arabia (provided its leaders had not read Paul Erdman's novel, The Crash of '79) could well choose to respond by means of an attempt at securing a closer American security connection.

*Which we should probably assess to be a net gain for regional stability.

On balance, it appears to be the case that the United States should (privately, at least) welcome a Yugoslavian nuclear-weapon capability. Given that NATO can do nothing directly to assist Yugoslavia, and would have great difficulty even adding credibly to the deterrent weight in Soviet minds in that regard, Yugoslav nuclear weapons should add to stability in the Balkans. NATO countries could, and probably should, assist in the modernization of the Yugoslavian armed forces--by making available large numbers of anti-armor weapons, for a leading example--but, useful though such a policy would be, it would be unlikely to have the dissuasive effect of a Yugoslav nuclear-weapon program.

It seems improbable that a Yugoslav "bomb" would promote proliferation elsewhere. In terms of Yugoslavia's immediate neighbors: Austria seems an improbable candidate for nuclear-weapon status, though that would be fully consistent with traditional understanding of the requirements of neutrality; Hungary, Rumania and Bulgaria are not free to develop nuclear weapons, regardless of their wishes; Greece, on balance would probably welcome a Yugoslav nuclear-weapon program (since that program should discourage Soviet Balkan adventuring and serve as a useful focus for Bulgarian attention); Albania may harbor secret hegemonial dreams, and might be encouraged to continue to improve its relations with Moscow; while Italy should welcome such a Yugoslavian capability. Italy is the only country even remotely likely to be linked in a proliferation chain to Yugoslavian nuclear weapons. Conventional wisdom aside, it is not self-evident that the establishment of another independent

center of nuclear decision-making in NATO-Europe must necessarily be a "bad thing" (seq. 1066 and All That). This author is not in the least enthusiastic at the prospect of Italian nuclear weapons, but he would not predict dire consequences as being at all likely to flow from such a development.

Overall, it would be very clear to all moderately intelligent observers that Yugoslavia had acquired a small but serviceable (and survivable) nuclear arsenal for one elemental reason--to help deter Soviet adventure.

6. To the dismay and embarrassment of American and NATO-European politicians and officials, the Yugoslavs explain their decision in substantial part with reference to the trends in the relevant East-West balances. Belgrade explains, discreetly, that it is not unappreciative of past (naturally self-interested) favors granted by the West. American assistance and moral and diplomatic support were essential in the nervous years following the break with Moscow in 1948. Thereafter, for many years, both American military (and particularly strategic--given the remoteness of Yugoslavia in terms of direct U.S. power projection) capability and the American "reputation for power" (seq. Hans Morgenthau) provided some useful extended deterrence coverage. Western policy has always been less than crystal clear on the subject of support for Yugoslavia, but the Yugoslavs believe (and believed) that in the 1950s and 1960s the Soviet Union would not indulge in bold military diplomacy beyond its generally accepted sphere of predominance--the United States

was such a formidable opponent that the Soviets could not afford even a small risk of miscalculation. But, the 1980s comprise a very different world. Yugoslavian defense analysts saw the 1970s unfold in a direction that they found very disturbing. In summary form, they perceived a deterioration in Yugoslavia's security context flowing from:

- U.S. acceptance of "parity" in SALT I.
- the slide in U.S. defense-policy rhetoric to endorsement of "rough equivalence" (whatever [they took note of David Packard's pithy explanation of the meaning of "sufficiency" that meant]).
- the slide in the late 1970s away from the Schlesinger-Rumsfeld insistence upon equality in strategic capability (expressed in dynamic terms--e.g., in hard-target counterforce).
- the very marked improvement in prospective Soviet civil defense performance, in a context where Soviet BMD development (though not deployment) could have major strategic implications.
- American disinclination to deploy, diplomatically, its industrial-technological mobilization potential.
- and so on and so forth.

Moreover, the detente of the 1970s made no noticeable benign dents in the structure of (in)security in Europe. Those detente-encouraged linkages whereby the Soviet Union was to be so enmeshed in cooperative endeavors that foreign adventure could come to be judged too costly, amounted to very little. On his deathbed, emulating Alfred von Schlieffen (who is reported to have departed this world saying "...only keep the Right Wing strong"), Marshal Tito-demonstrating

perhaps that he had read more military history than was good for him--is alleged to have said "...only keep the nuclear weapons coming."

7. In short, by the mid 1980s, Yugoslavs felt themselves to be very exposed, isolated, and vulnerable to any substantial domestic turmoil which might serve as a pretext for Soviet intervention.

8. Operational-political point. The Soviet Union has only four divisions (two tank) in Hungary, and none in Rumania or Bulgaria--by way of "normal" peacetime deployment. Of its own free will, only one neighboring Warsaw Pact country would be likely to be friendly to the idea of invading Yugoslavia--Bulgaria. The Hungarians would welcome an opportunity to seize Transylvania from Rumania, but the idea of moving into Yugoslavia would probably meet with a pretty cool response in Budapest. (However, it is just possible that some history-conscious Hungarians may recall that their predecessors found it attractive, in 1914, to be able to shell Belgrade from directly across the Danube). In other words, for the Soviet Union to be able to mount an intervention in Yugoslavia--and it would have to be an intervention on a major scale; forty plus divisions (with a tactical air army)--radical changes in Soviet peacetime deployment would first be necessary. Little imagination is needed to anticipate the Rumanian reaction to a Soviet "request" that, say, fifteen divisions be moved into Rumania! Bucharest would not (and could not) resist militarily, but it would do everything short of that.

9. Scenario development. In 1987 there is substantial domestic violence in Yugoslavia, as the Croatian extremists make their bid for independence. Croatian leaders request Warsaw Pact assistance. A minority among Serbian leaders also favors Pact intervention--on the basis of the argument that the Soviet Union is not the least interested in dismembering Yugoslavia, if there is a better alternative. This minority argues that Yugoslavia's future, faute de mieux, lies in reabsorption within the Soviet security system, with Moscow functioning as the muscular guarantor of Yugoslavia's political integrity. This faction notes also that Moscow has not forgotten the extensive Croatian flirtation with the Third Reich.

Majority opinion in Belgrade is less than very confident that deterrence will work, but it is encouraged by the following considerations:

- The Soviets cannot be in any doubt that they would have to fight their way into Yugoslavia, notwithstanding the existence of the Moscow-leaning Fifth Column.
- The Soviets should have some major political problems finding appropriate cover for a major invasion.
- The Soviets would know that Yugoslavia had nuclear weapons and, in extremis, would use them (Belgrade is not bluffing on this issue).
- The more substantial the fighting in Yugoslavia, the more likely it would be that a major NATO mobilization response would ensue.
- Even if the Soviets succeeded in an intervention, Yugoslavia could prove to be a very difficult country to control.

10. Break point: Soviet decision--to intervene or not to intervene? (The KGB--with a big "black bag job"--plus an airborne division on Belgrade, cannot "deliver" Yugoslavia). In the opinion of this author, Moscow decides against intervention. But, the alternatives should be considered.

11. Forty-six Warsaw Pact divisions intervene in Yugoslavia. Eastern Yugoslavia is overrun rapidly (though not without heavy losses by Pact forces), but the Yugoslavian Government moves from Belgrade into the mountains, covered by prepared defensive positions. Given that Moscow claims to be intervening on behalf of the integrity of the socialist commonwealth, the military developments, thus far, are embarrassing enough. However, worse is to come.

12. As Pact forces regroup and deploy for (what is intended to be) the final lunge for victory, the Yugoslav Government, likening the Soviet Government to the Third Reich, declares that Yugoslavs prefer death to dishonor. It:

- appeals, in the strongest terms, for U.S./NATO/UN/CPR (really anybody's) assistance.
- declares that (a) Warsaw Pact forces must begin withdrawing within 24 hours, and (b) complete their withdrawal from Yugoslavia within four days--or nuclear use will be initiated.

13. Break point: The Soviets acquiesce or do not acquiesce-- and what, if anything, is NATO doing? The Soviets cannot locate/strike at the Yugoslav nuclear arsenal--it comprises a few STOL aircraft and cruise missiles widely scattered in very hard hangars in the mountains.* The U.S. President asks the Director of Central Intelligence whether we could not help the Soviets find their targets, but the reply is negative. "Old Belgrade hands" in Washington confirm the President's suspicion that the Yugoslavs have to be presumed not to be bluffing. (A similar conclusion is reached in Moscow.)

14. NATO officials calculate that Moscow will not back down--too much prestige is at stake. NATO politicians are told that the Soviet build-up in Hungary and Rumania has not been effected at the expense of the GSFG (in East Germany) or the CGSF (in Czechoslovakia). Soviet forces in Central Europe are ready to roll Westwards as well as towards the South/South West. In short, NATO's maneuver room is close to non-existent. NATO's options amount to:

- low-level military assistance to the Yugoslavs.
- strong diplomatic support.
- the initiation of theater-wide war.
- doing nothing directly, but initiating a major military build-up (mobilization).

So committed are the Soviets, and so tense and nervous are they presumed to be, that NATO reasons that even half-hearted gestures of direct military support (say, involving the deployment of the Sixth

*I am less than confident that Yugoslavia could design and fabricate a nuclear weapon that would fit into a cruise missile (of modest proportion) by 1987.

Fleet) could precipitate a Soviet preemptive reply.

15. So, NATO does as little as it can decently. Indeed, some NATO politicians are annoyed that Yugoslavia would issue a nuclear threat--presumably, one should acquiesce in a Soviet conquest rather than escalate.

16. After 24 hours, Pact forces have not begun to withdraw. Therefore, they are struck--somewhat inaccurately, but well enough--by 7 nuclear weapons. These cause usefully high numbers of casualties among Pact forces, but have the predictable consequence of spurring the Soviets into waging a campaign of the utmost ferocity. There is and can be nothing very subtle about this campaign--blitzkrieg tactics do not work in the mountains of Herzegovina against prepared defenses. The Yugoslav Government, as a last try at deterrence, would like to threaten one or two Soviet cities (say Kiev and Kharkov) with the 5 nuclear weapons remaining, but it is given the bad news that the Yugoslav means of delivery lacks the necessary range. Therefore the remaining 5 weapons are put to good counterforce use in the mountains.,

17. Meanwhile, using both nuclear and chemical weapons, Warsaw Pact forces gradually squeeze Yugoslav positions to the point where a general Yugoslavian surrender is the only alternative to immediate annihilation.

18. The Yugoslav Government surrenders, and Yugoslavian forces still in the field lay down their arms. A puppet regime is established in Belgrade--and Croatian claims for independent statehood are met only in that the degree of local autonomy is extended. Of the Yugoslavian Government and military leadership which said no to Moscow, and then conducted the war, two prominent members escape by boat to Italy, six are shot while "resisting arrest," twelve simply disappear, and the remainder undergo some intensive interrogation in preparation for public trial.

19. The Soviet rationale for the events described above in outline took the following forms--Warsaw Pact forces intervened:

- to restore order in a Yugoslavia in danger of being cheated out of its socialist achievements.
- to defend an oppressed minority (Croats).
- to preempt imminent NATO moves against Yugoslavia.
- (Moreover, the Soviets labor the point that the first issuance of nuclear threat, and the first nuclear use--were both Yugoslav authored.)

20. Nuclear issues. In the space of a two-month campaign, Warsaw Pact forces took 150,000 casualties (dead and very seriously wounded). (Yugoslavian casualties are not known at the time of writing, but 300,000 is probably a fair base estimate.) First nuclear use could not turn the tide of battle for the Yugoslavs because of the scale of the local

military imbalance. Western publics are startled to learn that nuclear weapons:

- are real and work.
- can be brandished as a threat and then used (i.e. not all threats are bluffs).
- have useful military effects (though, admittedly, of a bilateral character).
- when used on a fairly small scale do not lead inevitably to general catastrophe--indeed, they did not even destroy very much of Yugoslavia.

21. Proliferation issues. What difference, if any, did the Yugoslavian nuclear-weapon capability make to the scenario?

- In one variant, none. Both sides book higher casualties.
- In the more plausible scenario variant, the Yugoslavian "bomb" takes up the slack in deterrence created by the progressive slippage in the Western military position.

The Soviet-American, Warsaw Pact-NATO military balance impinged on this scenario in that the satisfactory state of, and trends in, that balance accorded Moscow close to a free hand in the Balkans. By 1987, even if military action in Yugoslavia should get out of hand and spill-over to involve a naval clash in the Mediterranean, or Soviet strikes at NATO facilities that might be offering some limited support for Belgrade, the Soviets should be moderately confident that they would not be entering a conflict that they could not conclude on favorable terms.

The more stable the central balance, in Soviet eyes (i.e., the more confident they are of escalation dominance), the freer their hand in accepting risks locally.

22. Nuclear proliferation by Yugoslavia should be benign (by Western standards) provided (a) minority-group terrorists cannot seize and employ the weapons, and (b) the Soviets are appropriately deterred. (a nuclear-armed Serb [or an Israeli] with his/her back to the wall should deter all save the certifiably insane). But, such deterrence requires a nuclear-capable force that is secure against preemptive destruction, and which carries the promise of the imposition of enough damage.

23. Returning to the point of Soviet decision identified in (13) above, we may like to consider the possibility that, as the Yugoslavs issue their 24-hour ultimatum for nuclear use, the United States elects to enter the arena. It might do so with one of several objectives in mind.

- [Alt. 1] - To effect an in-place cease-fire and seek to find a face-saving formula for Soviet withdrawal.
- [Alt. 2] - To join the Yugoslavian Government, at least morally, and--without quite endorsing the 24-hour ultimatum--stating that if the war does escalate further, NATO inevitability must be involved directly.
- [Alt. 3] - To bypass the Yugoslavian ultimatum, and issue a NATO/U.S. ultimatum requiring a Soviet withdrawal.
- [Alt. 4] - To press the Yugoslavs to accept the substance of Soviet demands, while working to secure the best terms possible for Yugoslavia--consistent with reabsorption into the Soviet security domain!

24. The relative attractiveness of the above alternatives should be not unrelated to American and NATO-European perception of the state of the East-West military balance. For example, it would probably be unwise to issue an ultimatum to Moscow if the Soviets could take out the U.S. land-based missile force, and if their civil defense procedures had been activated.

THE STRATEGIC BALANCE, ESCALATION CONTROL,
AND LOCAL CRISES:
THE PROLIFERATION CONNECTION

by

Colin S. Gray

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THE STRATEGIC BALANCE, ESCALATION CONTROL, AND LOCAL CRISES:
THE PROLIFERATION CONNECTION

The purpose of this paper is to explore the possibility that the state of the central strategic balance between the superpowers may make an important difference vis à vis the incidence, course and outcome of local crises. This is an exercise in strategic logic and nothing more. Every example deployed in the paper is intended to illustrate an argument, no prediction is implied. Unfortunately, perhaps, the role of the central strategic balance in local crises in which the superpowers have more than marginal interests at stake does not lend itself to authoritatively rigorous analysis. The reason for this condition lies in the fact that there is no authoritative doctrine to which one can appeal for judgment in the matter of the freedom of foreign policy, or even military action, which different states of the central balance should permit. Herman Kahn addressed this question exhaustively in On Thermonuclear War with his differentiation of Type I, Type II, and Type III deterrence¹-- but an influential fraction of the U.S. defense and arms control community has never "signed on" for Kahn's logic.

Kahn's basic assumption, which really amounts to little more than common sense (which is not to say that it is correct!), is to the effect that "the more capable your strategic posture, the greater your freedom of action." The reason for this, of course, is that the quality of a strategic posture should be related fairly directly to the possible consequences of strategic actions. But, the consequences of strategic actions

are rarely calculable to the point where a political leader can be confident that he has identified a real-world analogue of the game theorists' mini-max strategy. What if the adversary exercises a policy choice which is totally unexpected?--or, what if his range of choice was identified correctly, but the outcomes of the strategy interactions have been badly miscalculated?

To return closer to current debate, how can we analyze the implications, if any, of different states of the central strategic balance (employing both static and dynamic criteria) when there is no consensus upon either the capabilities of weapons in action, or--at a more fundamental level--the strategic and political meaning of particular capabilities? It is adequate for our needs here only to postulate certain strategic conditions. By way of experiment, the doctrinal perspective inspiring the analysis is close to that of the Soviet military establishment.² There are two reasons for this choice. First, the adequacy of the American strategic posture is a question determined by Soviet reasoning on Soviet criteria. Second, this author is persuaded of the superiority of Soviet thought on the conduct of war and the relationship between such conduct and deterrence.³ Soviet military doctrine, characterized by a war-fighting focus (for all levels of combat), should by its very nature, dominate its American rival in any interaction process.⁴

What would constitute strategic superiority, and how might such superiority influence local crisis phenomena? This author joins those skeptics who are disdainful of bean-counting exercises masquerading as strategic

analysis. Such static criteria as throwweight, warhead numbers, launch vehicle numbers, together with such qualitative indices as accuracy, hardness, reliability, hardness and redundancy of C³, and diversity of posture--all comprise inputs for dynamic assessment. It is only the dynamic assessment of the outcomes of force on force engagements that tells one anything very useful about the state of the central balance.⁵

Strategic superiority has no simple definition, rather could it mean: the ability to deter crises (a potential adversary decides not to issue/accept a challenge); the ability to win crises (an adversary prefers diplomatic surrender/accommodation, to an actual test of arms); the ability to win in a process of competitive escalation (an adversary chooses to back off, having first sought to assert his claims by force); the ability to win a war (an adversary is defeated militarily at a cost that is deemed tolerable in terms of the political stakes).

Eschewing prediction, let us hypothesize that by 1984 the Soviet Union has continued its strategic postural modernization programs along the lines familiar to observers in the late 1970s, and fully in accordance with some reasonable interpretation of the language of SALT 2 (which again to hypothesize, contains some rather porous language on the subject of what constituted new missile systems). Continuing the speculation, the United States has declined to "bite the bullet" and attempt to provide a "quick fix" for its theoretically vulnerable ICBM silos. ACDA has argued, quite rightly, that all of the major candidate solutions for fixing the vulnerable silo problem are either highly dangerous and unduly demanding of real

time C^3 and assessment capability (launch on warning/launch under attack), would pose grave problems for the SALT 3 negotiations (any MAP basing variant), or would promote arms race instability (MAP basing again, and/or hard-point preferential BMD). So, the (theoretical) threat has unfolded and the United States has not responded.

The pertinent Soviet capability is as follows: 300 SS-18 ICBMs, each carrying 10 megaton-range MIRVs (the SALT 2 limit on ICBM fractionation), and with a reliability of 80 percent (all causes), translates into a deliverable RV count of 2,400. With this force the Soviet Union can deliver 2 RVs on each American hard target (all 1,054 ICBM silos, plus 146 other hard facilities); utilize a small fraction of its MIRVed SS-19 force to strike SAC air bases, SSBN facilities (including SSBNs in port), and those few installations of NORAD which might pose problems for penetrating bombers. So, the Soviets are (rightly or wrongly) confident that they can (1) draw down the U.S. ICBM force to less than 100, leaving themselves more than 1,000 ICBMs in reserve in silos (plus stockpiled "reloads"), more than 400 of which carry 4-6 megaton-range MIRVs; (2) take out a third of the SSBN fleet; and (3) destroy 40-50 percent of the manned bomber/cruise missile threat on the ground or on its fly out.

The U.S. would have a lot of warheads left in its strategic arsenal, but only the ALCMs and the gravity bombs on the penetrating B-52s would be relevant to the hard-target counterforce mission. The ALCM threat is interesting to examine. Assuming U.S. attainment of a full operating

capability, there will be 20 ALCMs on each of 120 B-52s, for a grand total of 2,400. Unfortunately, close to 1,200 are lost on the 50-60 ALCM carriers which are destroyed on the runway or flying out, and both sides calculate that 10-20 percent of the remainder will not be launched (because of technical problems with the obsolescent B-52, release and engine start problems with the ALCMs, and--last but not least--because of the damage imposed by the distantly extended Soviet air defense frontier). So, at the beginning of its penetration run, the U.S.'s ALCM force now numbers approximately 1,000. Again, both sides calculate that only 40-50 percent of the ALCMs launched successfully will escape destruction by the fully alerted air defenses. Thus, the pre-attack inventory of 2,400 ALCMs translates into 400-500 arriving warheads. In addition, the technical reliability of the ALCM and its guidance system, though very good, is less than perfect--the excellent figure of 90 percent technical reliability is achieved in the penetration phase, leaving 360-450 arriving warheads.⁶ All of this reflects the probably false assumption that the United States suffers the first, strictly counterforce, blow, picks up the pieces and executes its war plan. A little reflection suggests that a very large first counterforce strike by the U.S.S.R. may abort all of the U.S.'s pre-canned war plans. How many of the U.S. missiles intended to blow corridors through Soviet air defenses to facilitate B-52 and ALCM penetration will be available to execute that precursor mission?

Scenario details may be adjusted to taste. One may postulate a silo-housed ICBM force which is totally vulnerable, a bomber-cruise missile

force that cannot penetrate Soviet air defenses, and approximately 25 SSBNs at sea. Given that each SSBN carries 16 SLBMs with 8-10 40 kt. MIRVs each (or 24 SLBMs with 8 x 100 kt. MIRVs for Trident boats), and that these systems are designed to inflict area (not hard point) destruction, it is fairly obvious that a president's military choices would be narrowed drastically following such a Soviet first strike. In effect, he would have no choice. He would be in a situation where he could impose 30-40 million casualties (for a high range) on the U.S.S.R., in return for which he would have to expect a Soviet strike which would kill (prompt and delayed) 100-150 million Americans. No values are "worth" that kind of a price. In short, the United States would have to surrender. Some people might argue that a 30-40 million casualty total for the U.S.S.R. (twice the World War II level) exceeds U.S. requirements--which Soviet leader would judge such a level to be acceptable?--and how could he be sure that the level might not be 90-100 million? These questions are pertinent, and--to some degree--they can be answered.

Proportional to population, 30-40 million is lower than the toll taken by the Purges and the Great Patriotic War. Out of a population total of 250 million, 30-40 million (which would include hardly anybody considered essential in the state bureaucracy) may look like a distinctly survivable toll--particularly since the U.S.S.R. would dominate the post-war world and could employ West European resources and Middle Eastern energy supply for recovery purposes.⁷ However, the good strategist should attain his objective with a minimum of violence. Soviet leaders should be reasonably

confident that they had achieved escalation dominance: the U.S. should not be tempted to initiate a countercity campaign.

Whether or not some fairly close variant of the above scenario is at all plausible is irrelevant to this paper. What has been outlined, very briefly, is an illustration of the meaning of strategic superiority. To recap: the Soviet Union wins the initial counterforce exchange--on anybody's criterion (ia) of "winning", and the United States is faced with the prospect of having to choose between taking the war upwards into the countervalue region or accommodating. The countervalue "exchange" should yield a fatality imbalance of between 3 and 4:1 in the Soviet favor. It may, and probably should, be objected that this reasoning neglects the factors of uncertainty and irrationality. In reply to such objections, one can note that the Soviet strategy envisaged here does not rest solely upon faith (which might be misplaced) in the probable working of intra-war deterrence. Soviet leaders will know that nothing can guarantee that an American president will choose dishonor over death. The strategic superiority posited for the U.S.S.R. in the argument above has military and political meaning whether or not the United States escalates to a city exchange. If the Soviet Union wins a military war in Europe and in an intercontinental counterforce exchange, and as a consequence is the arbiter of the destiny (and beneficiary of the resources) of all of Eurasia while the U.S., having lost perhaps two-thirds to three-quarters of its population, is beyond recovery--then even the high price of, say, 30 million

people is not likely to be assessed as being incompatible with the idea of victory.

(The 30-40 million casualty range is, admittedly, very speculative indeed. However, it is probably on the high side of the likely range for the mid-1980s. Very few of the analysts who have devoted serious study to Soviet civil defense/war-survival programs, in the light of realistic assessment of the probable weight of a U.S. attack, endorse a range as high as this.)⁸

This author happens to believe both that the U.S.S.R. is seeking to achieve strategic superiority on the scale hypothesized above (which is not a particularly controversial belief), and that the prospects, given current Western performance, of such achievement are fair to good (which is more controversial). However, readers of this paper are invited to endorse neither of these beliefs.

Logically, Soviet strategic superiority--or even a "rough equivalence" in the central strategic balance--should effect a total de-coupling of the U.S. strategic forces from distant interests (even major interests).⁹ Indeed, such a strategic context should cause the United States drastically to revise downwards its short list of "vital" (i.e. worth fighting for) interests. But, in practice, U.S. politicians and officials would continue to speak and even act, in minor key, as though the logical coupling were still extant (and they might not be bluffing--instead those people would have resolved the potential problem of cognitive dissonance by the simple expedient either of not believing what defense experts said, or of not paying detailed

attention to the slippage in the U.S. end of the [im]balance). Moreover, it is a historical fact (one of the few) that states do not court war (i.e. foment crises as acts of deliberate policy) on the basis of careful and sophisticated reading of trends in the military balance. Soviet leaders, only too well aware of the inefficiencies in their system, may not believe that their military could fare as well as the (military's) computer print-outs of war game outcomes suggest to be very probable. The Soviet General Staff is not going to be permitted to start a war simply because it believes it could win. In addition, even in the unlikely event that a Soviet leadership group believes the Soviet victory scenario that has been developed by analysts in the U.S.S.R. (and some conservative analysts in the U.S.), the courting of the risk of nuclear war would (should?) remain a grimly self-detering prospect. 30-40 million dead (and who can say, ahead of time, what the true casualty figures would be [dead-prompt and delayed-injured, sick]) becomes "only 30-40 million" solely in the context of probable U.S. casualties. Moreover, no matter how confident the Ministry of Defense may be that damage could be held to a relatively low level, political leaders would know that even a Soviet first strike that exceeded expectations concerning its likely effectiveness, would still leave the U.S.S.R. open to a retaliatory strike by more than 4,000 RVs.¹⁰

The cautionary words in the paragraph above are not intended to destroy the "value of superiority" theme, but they are intended to warn against the drawing of unduly alarmist conclusions. The strategic nuclear balance will never be the only factor in a test of superppwer wills--the other

considerations will include the state, real and perceived, of other military/naval balances, and the degree of interest that each side believes it has at stake in the issue. There are probably very, very few interests of the U.S.S.R. that are worth placing at risk 30-40 million Soviet lives and perhaps 10-15 years of economic development (regardless of what the Soviet Union gains, or stands to gain, abroad). In fact, the prospect of losses on such a scale probably would be accepted, reluctantly but willingly, only if (1) some foreign adventure appeared to be a low risk enterprise, or (2) more likely, if Soviet leaders believed that control over their imperium at home and in Eastern Europe was slipping away.¹¹

The risk-taking propensities of an unknown (at present) Soviet leadership group in the mid-1980s, struggling to determine the post-Brezhnev succession, cannot be predicted.¹² It is tempting to ignore the prospect of a superpower seeking to cash some measure of strategic superiority through nuclear blackmail in a crisis that it has fomented deliberately.¹³ That temptation should be resisted for three reasons. First, it is theoretically possible--and hence should be considered. Second, history offers some minor precedents of calculated attempts at nuclear blackmail--in Khrushchev's missile-rattling diplomacy from 1956 until 1960.¹⁴ Third, history offers no precedent concerning Soviet behavior in an era of (Soviet) strategic superiority.¹⁵

Soviet strategic superiority should percolate down to the level of decision-making on crisis initiation and crisis exploitation. No Soviet leadership group would foment or "join" a local crisis expecting, let

alone wanting, to take strategic nuclear actions at the intercontinental level. But, a distinctly favorable strategic balance (even if politicians distrusted [as they should] much of the detail provided by their military advisors, they would understand that their side was markedly ahead--a dynamic condition which should translate into greater freedom of action) should facilitate relatively bold decision-making early on in a crisis and, if the crisis attracts an attempt at countervailing diplomacy by the other superpower, should encourage the temptation to try to hold out for a favorable crisis outcome. As Bernard Brodie has written, nuclear weapons have enormous "utility in non-use".¹⁶ Soviet political and military leaders are in no need of strategic education on the political value of latent nuclear threats; the U.S.S.R. was on the unfavorable end of a strategic nuclear imbalance for twenty years--there is no substitute for first-hand experience! However, Soviet strategic doctrine, unlike its Western counterpart, does not stop with the ramifications of the truism that there is (obviously) "utility in non-use" of nuclear weapons. Soviet doctrine asserts that there should be utility in use, as well. As best we can judge, Soviet strategic (et al.) forces are tested for their adequacy not against the putative needs of not-implausible pre-war deterrence contexts, but rather for their adequacy in actual combat. To repeat a point made earlier, the "superiority" posited here refers not only (or even principally) to the crude "observables" of launcher numbers or size of warheads, rather does it refer to a Soviet ability (1) to improve markedly its relative strategic

standing by waging a counterforce round (which is the true definition of crisis instability), while (2) holding in strategic reserve the capability to kill between half and three-quarters of the U.S. population, when (3) the U.S. would be fortunate (if that is the correct term) to be able to kill ten percent of the Soviet population (and that would not be a ten percent that really counted for much in the official Soviet hierarchy of values).

As a complex proposition, a United States that was strategically inferior in the senses specified above, should be less likely to enter local crises, less likely to be able to contribute to the successful management of local crises, and should be unable to impose escalation discipline on a U.S.S.R. that sought an improved political outcome by means of the effecting of a military breakout from a crisis. To extend the proposition, the unmistakable emergence of Soviet strategic superiority should encourage nuclear proliferation. The international order that has been partly organized and policed by the United States since World War 2, breaks down as the Guardian loses its ability to guard. Everybody's short-list of "near nuclear-weapon capable" states is heavily populated with U.S. security consumers. As the U.S. extended deterrent is eroded, so those states have to take out insurance against a far more dangerous future. Most of the states in question do not have promising "accommodation" options available, but they do have nuclear options down the road that would usefully raise the risks for local (and less local) adversaries.

Of course there are many considerations relevant to the series of decisions that would produce, eventually, a politically and militarily useful nuclear-weapon capability. All that is claimed here is that American acquiescence in an emerging strategic nuclear inferiority would function on the negative side of the ledger from the perspective of discouraging nuclear proliferation.

Alas, there is worse to come. Nuclear proliferation on the part of erstwhile heavy consumers of U.S. nuclear protection, would likely inject into local/regional crises a novel element that the local/regional adversaries of the new proliferators could not handle unaided. In short, American strategic inferiority would encourage local proliferation, would almost guarantee Soviet entry into those crises to provide nuclear counter-coercive muscle on behalf of threatened non-nuclear states, and would inhibit effective crisis management by the United States. The word "inhibit" is used, rather than prevent, because this author suspects strongly that even a Soviet leadership capable (and knowing/believing that it was capable) of out-escalating the United States, would still behave with very considerable prudence as it perceived a heightened danger of nuclear war.

Summary of Argument

1. Strategic superiority is a meaningful concept. In the 1980s, the U.S.S.R. might achieve the ability to win a thermonuclear war (not painlessly, but at a cost from which it could recover

- over an acceptable period of time).
2. However, strategic superiority should function at least as much for the diplomatic effect through the inhibition of U.S. crisis escalation moves, as through its ability to be translated into military victory.
 3. Soviet strategic superiority, if it occurs, will undermine the entire basis of the international order that the United States has irregularly (and with sharply diminishing vigor) policed since 1945. Until the mid 1970s, that basis has comprised the understanding that there was a strategic nuclear offset for (some) local deficiencies--if the U.S. was losing locally, it could take the conflict up the ladder of violence in reasonable (or not-unreasonable) expectation of securing an improved outcome at a higher level. Nuclear parity, let alone "rough (in)equivalence" or inferiority, destroys the basis for that reasoning.
 4. U.S. strategic inferiority should encourage some of the U.S.'s current and former security dependents to exercise their nuclear options. Such a development should ensure that any local crises involving those countries, wherein their regional rivals have not taken out (intended) countervailing nuclear-weapon insurance, will have to invoke some nuclear back-up from outside. The most probable source of such nuclear assistance will be the U.S.S.R. The United States would not be able to face down the U.S.S.R. in any nuclear crisis involving Israel, Iran, or South Korea (for three hypothetical examples).¹⁷

Footnotes

1. (Princeton: Princeton University Press, 1960), particularly Chapter IV.
2. As reflected in the professional, classified, Soviet military literature.
3. This Soviet thought, as reflected in writings (by the Soviet military, for the Soviet military) and in weapon (and ancillary--e.g., command and control) programs may tell us little concerning probable Soviet political decisions on the use or the non-use of force in acute crises.
4. Meaning that the side which knows what it is about--which has a theory of war--is very likely to be the side which determines the character of the conflict.
5. Interesting recent examples of central balance analysis include: Santa Fe Corporation, Measures and Trends U.S. and USSR Strategic Force Effectiveness, DNA 4602Z (Washington, D.C.: Defense Nuclear Agency, March 1978); U.S. and Soviet Strategic Capability Through the Mid-1980's: A Comparative Analysis (Washington, D.C.: Arms Control and Disarmament Agency, August 1978); and Is America Becoming Number 2? Current Trends in the U.S.-Soviet Military Balance (Washington, D.C.: Committee on The Present Danger, 5 October, 1978).
6. This very approximate estimate is almost certainly way on the high side. The popular 50 percent penetration-survival estimate tends not to reflect realistic assessment of the pre-launch survivability problems. If, as seems very possible, the ALCMs suffer massive attrition prior to launch, then Soviet air defenses should do a lot better than achieving a 40-50 percent kill.
7. This is not to deny that there is a major difference between losing most of 30 million over a few days or, at most, weeks, and losing the same number over a 10-year period.
8. Soviet leaders probably repose little confidence in their civil defense program (save with respect to the protection carefully prepared for key cadres--which all commentators agree is very serious business indeed), but they can scarcely fail to be impressed by the enormous asymmetry between their flawed program and the trivial civil defense program of the United States. The key to conflict control lies in self-deterrence, rather than other-deterrence. A U.S. president may doubt that Soviet civil defense would much affect the Soviet casualty list, but he knows for a fact that his citizens are totally vulnerable.

9. See Paul H. Nitze, "Deterring Our Deterrent", Foreign Policy, No. 25 (Winter 1976-77), pp. 195-210; and Colin S. Gray, "The Strategic Forces Triad: End of the Road?" Foreign Affairs, Vol. 56, No. 4 (July 1978), pp. 773-776.
10. No sane U.S. president should order such an attack, but...who knows?
11. Most individuals and collectivities will take far higher risks in defense (as they see it) of what they have, than they will in the hope of gain.
12. Albert Wohlstetter made a very similar argument in a study more than twenty years ago which is still well worth reading. See A.J. Wohlstetter, F.S. Hoffman and H.S. Rowen, Protecting U.S. Power to Strike Back in the 1950's and 1960's, R-290 (Santa Monica, Cal.: RAND, 1 September 1956), pp. 4, 100.
13. See Daniel Ellsberg, The Theory and Practice of Blackmail, P-3883 (Santa Monica, Cal.: RAND, July 1968).
14. See Arnold Horelick and Myron Rush, Strategic Power and Soviet Foreign Policy (Chicago: Chicago University Press, 1966).
15. For many years the leadership of the U.S. defense and arms control community claimed that the emergence of a "rough parity" would be/ was a healthy development for international security. Such emergence would usefully calm Soviet anxieties, diminish Soviet paranoia, facilitate arms control negotiations (indeed was a sine quo non for arms limitation), and function as a limiting factor in the arms competition, in and of itself. This author is uncertain whether or not it is wise to calm Soviet anxiety; he suspects that Soviet paranoia is a condition that is beyond treatment and he is convinced both that strategic arms control negotiations with the Soviet Union are not worth pursuing (given the apparently enduring character of U.S. strategic beliefs), and that "rough parity" is seen by Soviet officials as being only a stage on the road to superiority.
16. In War and Politics (New York: Macmillan's, 1973), Chapter 9.
17. This is not to suggest that the U.S.S.R. would entertain lightly the prospect of suffering nuclear damage at the hands of Israelis or South Koreans.

NUCLEAR PROLIFERATION IN EASTERN ASIA:
POTENTIAL IMPLICATIONS FOR U.S. INTERESTS

by

William H. Overholt

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The Indian nuclear explosion, and the rapid spread of nuclear reactors around the world in the wake of the OPEC oil price rise, have made nuclear proliferation a major global concern. Most attention so far focused, however, on the process of proliferation and on measures to retard that process,* rather than on the potential consequences of proliferation that does occur. This paper inquires about the potential consequences of proliferation in Pacific Asia for U.S. interests in the region. This apparently ethnocentric inquiry is actually of general interest, because it exposes the reasons for U.S. sensitivity about nuclear proliferation and the ways proliferation could change the shape of Asian politics.

Such inquiry must be pitched far into the future and hence must be quite speculative. It must attempt simultaneously to address two moving targets: the process of proliferation and the evolution of U.S. relations with Asia. Such is the range of speculation required in such an inquiry that it would be science fiction if one did not know that many of the decisions which will influence both proliferation and U.S. relations with Asia twenty years hence are being taken today. Such is the range of uncertainty in our knowledge that it will sometimes be necessary to consider radically contradictory potential implications for many proliferation events.

* I and others have dealt with the principal regional proliferation process issues in William H. Overholt, ed., Asia's Nuclear Future (Boulder, Colorado: Westview Press, 1977), especially Chapter 4. This paper will update some of the points made there, but its focus will be on U.S. interests and responses to the process.

Potential Nuclear Proliferation in Pacific Asia

Pacific Asia contains two of the most immediate candidates for the nuclear club, namely Taiwan and South Korea, and one state which, although it can in no way be viewed as an immediate or even early candidate, possesses the technological and economic capacity to acquire nuclear weapons and become a major world power. This latter is, of course, Japan.

Taiwan and South Korea are both small countries whose diminutive size and relatively recent poverty frequently confuse casual observers into neglecting their importance. Both countries are major world traders. Both are rapidly acquiring a sophisticated technological base as well as considerable experience with handling large-scale, high-technology projects. Both have been forced to plan for heavy reliance on nuclear power, since both lack indigenous sources of petroleum. Along with Japan, both have noted U.S. vacillation in its attitude toward Japanese nuclear reprocessing facilities, U.S. willingness to impose great costs upon Japan as a result of that vacillation, and U.S. threats to renege on fuel supply commitments to Japan and other countries; these observations justify to many people an Asian interest in being independent of U.S. fuel supplies and hence an interest in independent reprocessing capability. Both Taiwan and Korea possess sophisticated military delivery systems. Above all, both possess intense security fears, resulting from U.S. defeat in Vietnam, the U.S. policy of withdrawing ground forces from Korea, and the U.S. search for normalization with the People's Republic of China that began in 1971 and culminated in December 1978. Not surprisingly, given this combination of capabilities for nuclear development and motivations for it, both have demonstrated considerable interest in the possibility of acquiring nuclear weapon capabilities.

Taiwan has acknowledged that it began a program of nuclear weapon development in 1958, and Premier Chiang Ching-kuo has stated that Taiwan was prepared to manufacture nuclear weapons in 1974. That program was allegedly terminated in subsequent years, and Taiwan's reprocessing unit was sealed. Given the PRC-U.S. normalization of diplomatic relations, some observers will count Taiwan out of the nuclear game. But in fact the months and years immediately after the normalization will constitute a time of maximum nuclear temptation for both Kuomintang and Taiwanese leaders on Taiwan. What better way exists for Taiwan to manifest its continuing independence than a nuclear explosion? What better time will exist for a constitutional revision, and a declaration of independence punctuated by a nuclear detonation? When are security fears likely to be greater or dependence on the U.S. likely to be less?

South Korea has overtly threatened to acquire weapons and has only with the greatest difficulty been forced to abandon plans to acquire such technologies as a French plutonium reprocessing plant and a Lockheed rocket fuel manufacturing facility.* The U.S. ground force withdrawal has weakened deterrence and frightened South Korean strategists. Perhaps more important, the manner of that withdrawal and its timing have affected the pride of South Korea's leaders and probably pushed them toward a more independent stance. The U.S. is directly and indirectly facilitating military strengthening in Korea's feared neighbors, Japan and China. The prospect for the foreseeable future is one of rising technological capabilities and rising motivation to acquire nuclear weapons in both Taiwan and South Korea. Either one could make an early decision to plunge headlong into nuclear weapon development, with results in the 1980s if not halted by outside intervention.

*For details see William H. Overholt, "Nuclear Proliferation in Eastern Asia," Chapter 4 of William H. Overholt, ed., Asia's Nuclear Future, *ibid.* It should be noted that, while the rocket facility would have been useful for nuclear weapon delivery, South Korea's primary motivation was to match North Korea's ability to hit Seoul with FROG rockets.

Japan's situation is very different. Public opinion overwhelmingly rejects the idea of nuclear weapons. Political leaders share such views, and military leaders generally argue that nuclear weapons would make Japan more vulnerable rather than less. The likelihood of negative reactions from the Soviet Union, China, Southeast Asia, and the United States further constrains any putative Japanese nuclear option. But even strongly held views can change under certain circumstances, and a Japan which found itself with neighbors consisting of a nuclear Soviet Union, a nuclear China, a nuclear Taiwan, and a nuclear South Korea might begin to reassess some of its attitudes. Moreover, Japan's attitude regarding nuclear weapons is premised upon an assumption of Japanese security from external political and military events, and with time that premise could be severely challenged. Already Japan has had to face such shocks as the Nixon trip to China, the OPEC oil embargo, the violent global economic shifts of recent years, the U.S. loss in Vietnam and partial withdrawal from Korea and elsewhere, and increasingly troublesome Japanese conflicts with the Soviet Union over ownership of islands and sea resources. U.S. plans to withdraw ground troops from Korea, Soviet threat, Soviet-American strategic parity, and concern over U.S. credibility have in 1978 already created a more open debate about defense and an expectation that the hitherto sacred one percent of GNP limit on defense expenditures will soon be broken. This is still very far indeed from major Japanese rearmament and farther still from Japanese nuclear arms, but it is an omen that old attitudes are not necessarily unshakeable. Thus, although one must repeatedly underline the strength of Japan's anti-nuclear convictions, one must also recall that there are imaginable circumstances under which Japan's opinions, and the

U.S.-Japan Mutual Security Treaty which undergirds these opinions, could be challenged. If such challenges were to occur, Japan's rise as a nuclear power could be as spectacular as its previous rise to economic power. By the late 1990s Japan could be a global nuclear power.

Nuclear proliferation in Southeast Asia is a more distant possibility, unlikely much before the year 2000. But it would be a logical outcome of unimpeded proliferation in neighboring Northeast Asia (Japan, Taiwan, Korea, China) and South Asia (India, Pakistan). There are political forces in Australia which believe Australia threatened by neighboring Indonesia, and potentially by Japan or China, and which have recently come to doubt the value of Australia's alliance with the U.S. (ANZUS). Some of these political forces believe in consequence that Australia must eventually obtain nuclear weapons. Some spokesmen of these pro-nuclear weapon groups have positions of power. However, on this issue such groups are relatively isolated and have no foreseeable prospects of success unless the regional environment alters in highly unfavorable and unlikely ways.

U.S. Interests and Political-Military Commitments in Pacific Asia

To assess the influence of nuclear proliferation, one must have a sense of U.S. interests and commitments in the region. The U.S. possesses an undeniable stake in Pacific Asia. Northeast Asia is the confluence of interests of the four principal global powers: the U.S., Japan, China, and the Soviet Union. Korea is therefore, along with the Middle East, one of the two most dangerous global flash points. Japan is America's largest and fastest growing trading partner, and shares with the United States half the production and a quarter of the trade of the developed non-communist world. The Third World countries of Pacific Asia are now growing at an average of 7-8 percent a year, a rate

unprecedented in world history for such a large group of countries. The political conflicts and economic dynamism of Pacific Asia generate opportunities and dangers at a rate which must heavily weight Pacific Asia in U.S. priorities. The region encompasses roughly half of the world's population, and Southeast Asia now constitutes a major source of resources. The Pacific is an increasingly important arena of Soviet-American competition, and the Sino-Soviet split is one of the touchstones of future success or failure in that competition.

In husbanding these interests, the United States has acquired a series of formal and informal commitments. The U.S. has formal alliances with Japan, South Korea, Taiwan, the Philippines, Australia, and New Zealand. The U.S. maintains military forces in South Korea, Japan, and the Philippines, as well as a soon-to-be-terminated force in Taiwan and certain facilities in Australia. The U.S. has a continuing intention to assure freedom of the seas in Pacific Asia, to counter possible Soviet naval and submarine actions in the event of global conflict, to assist in Japan's defense of its commerce, and to defend its allies. To maintain a relatively cooperative relationship with China vis-à-vis the Soviet Union, the U.S. must demonstrate to China sufficient strength and will to prove itself a useful partner of China in countering Soviet influence. Finally, but perhaps most importantly, the U.S. has a diffuse determination to facilitate the evolution of the non-communist countries of the region toward a community of relatively prosperous and peaceful nations which are relatively sympathetic to American political values.

If one surveys the various conflicts and relationships in the region for difficulties which could conceivably threaten any of these interests or

commitments, one obtains a rather long list, as illustrated in the attached chart of "Potential Military Contingencies in Asia." However, not all of these conflicts would threaten American interests to an extent that would justify contemplation of military action. For instance, none of the raw materials or investments which the U.S. possesses in Asia would be worth the various costs of a major military action.* Moreover, there is an additional list of contingencies in which military action might be contemplated, because of the scale of the interests involved, but in which military action would almost certainly be more costly than the situation justified. For instance, the cost of trying to reverse a major domestic revolution in any of the countries by military force would almost certainly prove counterproductive; in those countries such as Indonesia and Japan where U.S. interests are extremely high, the cost of intervention would also be extraordinarily high.

Using these criteria, one can in principle delete many of the contingencies from consideration. Exactly where one should draw the line, however, must remain a matter of extreme controversy. In the wake of Vietnam, the assertion that the U.S. has any interests in Asia (or at least any interests outside of Japan) which would justify substantial military action is controversial. If one leans toward the views of those most disaffected with American involvements in Asia, one comes up with a very short list indeed of potential military contingencies. On the other hand, this paper is addressing American relationships with Asia over a very long period of

* It is generally believed that the cost of the Vietnam War was \$180-200 billion. U.S. investments are on the order of ten percent of that amount.

POTENTIAL MILITARY CONTINGENCIES IN ASIA

- I. TERRORISM
 - A. KIDNAPPING AND SKYJACKING
 - B. RANDOM ARSON AND MURDER
 - C. LARGE-SCALE ECONOMIC SABOTAGE
 - D. NUCLEAR THREATS BY TERRORISTS
 - E. INADVERTENT ENDANGERING OF U.S. CITIZENS BY SOCIAL STRIFE

- II. HARASSMENT OR SYSTEMATIC INTERDICTION OF U.S. OR JAPANESE SHIPPING OR AIR TRAFFIC
 - A. BY SOUTHEAST ASIAN COUNTRIES OR KOREA OR TAIWAN
 - B. BY PRC OR U.S.S.R.

- III. NUCLEAR CONTINGENCIES
 - A. SOVIET UNION OR CHINA ATTACKS JAPAN
 - B. SOVIET UNION ATTACKS CHINA
 - C. CHINA ATTACKS TAIWAN (PRC INITIAL NUCLEAR USE UNLIKELY)
 - D. INDIA ATTACKS PAKISTAN, BANGLADESH, OR SRI LANKA
 - E. SINO-INDIAN WAR
 - F. NUCLEAR PROLIFERATION

- IV. CONVENTIONAL ATTACKS
 - A. JAPAN
 1. SOVIET UNION OR CHINA ATTACKS JAPAN
 2. TAIWAN OR SOUTH KOREA ATTACKS JAPAN
 - B. KOREA
 1. NORTH ATTACKS SOUTH
 2. SOUTH ATTACKS NORTH
 3. NORTH AND EITHER PRC OR U.S.S.R. ATTACKS SOUTH
 - C. CHINA ATTACKS TAIWAN
 - D. SOUTHEAST ASIA
 1. CHINA ATTACKS VIETNAM OR VICE VERSA
 2. VIETNAM ATTACKS CAMBODIA OR LAOS
 3. CHINA ATTACKS THAILAND
 4. VIETNAM ATTACKS THAILAND
 5. ONE ASIAN COUNTRY FRIENDLY TO U.S. ATTACKS ANOTHER
 - a. ATTACKER A U.S. ALLY/ATTACKED NOT AN ALLY (E.G., THAILAND VS. MALAYSIA)
 - b. ATTACKER NOT ALLIED/ATTACKED AN ALLY (E.G., MALAYSIA VS. PHILIPPINES)
 - c. BOTH ARE ALLIES (E.G., PHILIPPINES VS. TAIWAN)
 - d. NEITHER AN ALLY (E.G., INDONESIA VS. MALAYSIA)
 - E. CONVENTIONAL SINO-SOVIET WAR
 - F. CERTAIN FORMS OF SOVIET INTERVENTION IN INDIA

- V. REVOLUTIONS
 1. JAPAN
 2. SOUTH KOREA OR TAIWAN
 3. INDIA
 4. INDONESIA
 5. OTHER SOUTH OR SOUTHEAST ASIAN

- VI. EXTRA-ASIAN CONTINGENCIES POTENTIALLY REQUIRING U.S. MILITARY PRESENCE IN ASIA
 - A. NATO-WARSAW PACT CONFLICT
 - B. MIDDLE EAST CONFLICT INVOLVING U.S.S.R.

time, and the history of America's rapidly changing degree of involvement in Asia, of its oscillations between enmity and friendship with Japan, and of its rapidly evolving relationships with China, demonstrates that the current sentiments are not necessarily eternal. It is therefore important not to exclude contingencies which could look more important in the future than they do at present. Striking a balance between these two sets of considerations, it is probably fair to say that U.S. military intervention could still be triggered by large-scale terrorism which directly threatened the well-being of American citizens, by threats to U.S. or Japanese use of the seas, by any nuclear attacks or threats, by any conventional attacks on U.S. allies, and by such extra-regional contingencies as a NATO-Warsaw Pact conflict or a Middle-East conflict. The principal contingencies which derive from such a list are displayed in the chart on "Potential Contingencies in Which Benefits of Direct U.S. Military Action Could Conceivably Outweigh Costs."

Some Potential Influences of Proliferation on U.S. Relations With the Region

There is historical precedent for the possibility that nuclear weapons could affect the outcome of political or military conflicts in Pacific Asia. U.S. threats to employ nuclear weapons may have facilitated termination of the Korean conflict. Similarly, U.S. threats to employ nuclear weapons influenced the decision of the People's Republic of China to back down from its threats to Quemoy in 1958. The Soviet Union's refusal to provide a nuclear umbrella for China's offensive against Quemoy was a crucial turning point in that local conflict and also in the development of the Sino-Soviet split. Soviet fears of Chinese nuclear weapons have enhanced the Sino-Soviet

POTENTIAL CONTINGENCIES IN WHICH BENEFITS OF DIRECT
U.S. MILITARY ACTION COULD CONCEIVABLY OUTWEIGH COSTS

- I. TERRORISM
 - A. KIDNAPPING
 - B. RANDOM ARSON AND MURDER
 - C. LARGE-SCALE ECONOMIC SABOTAGE
 - D. NUCLEAR THREATS BY TERRORISTS
- II. HARASSMENT OR SYSTEMATIC INTERDICTION OF U.S. ON JAPANESE SHIPPING OR AIR TRAFFIC
 - A. BY SOUTHEAST ASIAN COUNTRIES
 - B. BY PRC OR U.S.S.R.
- III. NUCLEAR ATTACKS OR THREATS
 - A. ON JAPAN BY U.S.S.R. OR PRC
 - B. ON PRC BY U.S.S.R.
 - C. ON TAIWAN BY PRC
 - D. ON SMALL NEIGHBOR BY INDIA OR CHINA
 - E. SINO-INDIAN WAR
- IV. CONVENTIONAL ATTACKS
 - A. ON JAPAN
 1. BY PRC OR U.S.S.R.
 2. BY KOREA OR TAIWAN
 - B. ON KOREA
 1. BY NORTH KOREA
 2. BY KOREA OR U.S.S.R.
 - C. ON TAIWAN BY PRC--IF U.S. GRC MUTUAL SECURITY TREATY OR EQUIVALENT STILL IN FORCE (I.E., TO DEC. 31, 1979)
 - D. (CERTAIN FORMS OF SOVIET INTERVENTION IN INDIA)
- V. NO REVOLUTIONS
- VI. NO PURELY ECONOMIC CONTINGENCIES
- VII. EXTRA-ASIAN CONTINGENCIES REQUIRING U.S. ASIAN-BASED MILITARY ACTION
 - A. NATO-WARSAW PACT CONFLICT
 - B. MIDDLE EAST CONFLICT INVOLVING U.S.S.R.

split, and Chinese confidence in pursuing that split has been greatly enhanced both by China's initial acquisition of nuclear weapons and by its later development of an assured second-strike capability. All of these events have greatly influenced America's ability to intervene in the region militarily and politically. In short, from the time of bombings of Hiroshima and Nagasaki, nuclear weapons have demonstrated utility for war termination, for deterrence, and for assertions of political independence.

Potential Reduction of U.S. Effectiveness. Recently the rise of Soviet and Chinese nuclear capabilities relative to the United States has begun to raise questions in the minds of certain Japanese, Koreans and Taiwanese about the effectiveness of U.S. security guarantees. These trends have been very gradual, and the consequences of the very gradual shift in relative power would hardly be visible in the 1970s had it not been for the Vietnam War. But the Vietnam War, and subsequent military withdrawals from elsewhere in the region, did occur, and they have caused Asian observers to take notice of larger nuclear issues. It is probably fair to assume that, in the absence of dramatic events (such as a major and successful American military engagement in the region), further nuclear proliferation would further degrade Asian nations' perceptions of the United States as a principal arbiter of Asian international relationships. Since most of the politics, and especially the nuclear politics, of the region has been oriented around deterrence rather than active military engagement, such psychological shifts are of major importance. In an Asia of extensive nuclear proliferation, the U.S. would be an ally whose assistance would become both less credible and less needed. This degradation of American influence would probably constitute the most important consequence of widespread nuclear proliferation. There

is thus a vicious circle at work here: perceptions of American weakness accelerate nuclear proliferation, and nuclear proliferation in turn would enhance perceptions of American weakness.

Potential Reduction in U.S. Regional Force Requirements. One possible concomitant of such a reduction of American influence in the region could be a reduction in the capabilities of U.S. forces required in the region. Such a reduction would in itself not necessarily damage U.S. interests if it strengthened U.S. allies. Conceivably South Korea and Taiwan could become less dependent upon allies' military power, and could even confine their vital relationships with the United States to economic and political areas. By 1995, South Korea could have roughly the population and gross national product of Britain in 1975, together with a nationalism more characteristic of Britain in the first decade of the 20th century. Particularly if it continued to face a North Korea whose economic performance had proved inferior and whose relationships with its major allies had not prospered, such a South Korea could well be relatively self-sufficient. Such an outcome would continue a process of South Korean strengthening and U.S. withdrawal that has already been occurring for many years. The Taiwanese case is potentially an exact parallel.

Potential Expansion of U.S. Regional and Global Force Requirements. Japan could also be self-sufficient by, say, the end of the century, if it developed nuclear weapon capabilities in the meantime. However, Japanese acquisition of nuclear weapons, unlike Taiwanese or Korean acquisition, would almost certainly add to, rather than subtract from, the net defense burden of the United States. It is virtually unimaginable that Japan would

seek to acquire nuclear weapons in the absence of some security shock so severe that the Japanese felt betrayed by the United States and forced to abandon the Mutual Security Treaty. In addition, political currents run so strongly against acquisition of nuclear weapons, and the current, pro-American LDP government is so vulnerable on military issues, that only opposition, anti-American parties would ever be likely to form a government capable of producing nuclear weapons. (Paradoxically, this is true even though the opposition parties are presently firmer in opposing nuclear weapons.) Hence, on grounds of both international politics and Japanese domestic politics, one must assume a nuclear Japan would be a Japan hostile, or at least contemptuous and uncooperative, toward the United States. Such hostility from Japan would remove much of the motivation for strong U.S. ties to Taiwan and South Korea, and would transform U.S. facilities in these countries from sources of strength to sources of vulnerability. Thus a nuclear Japan would probably mean a northwest Pacific from which U.S. political and military influence had essentially been expelled. Given the importance of Japan in the world of today and tomorrow, such a situation would mean drastically reduced political influence and virtual military impotence for the United States in much of the Western Pacific. Southeast Asian states, all of whom already have greater trade with Japan than with the United States, would be far more likely to align themselves with Japan or with China than with a United States whose role in the Pacific had so greatly diminished. The resulting expulsion of most U.S. forces from the western Pacific would not only reduce U.S. influence in the region, but would also shift the strategic balance with China and the Soviet Union by

contracting the range of U.S. missile submarines and expanding the area within which hostile missile submarines could operate undetected.

In this situation, unlike the scenario limited to Taiwan and Korea described earlier, declining U.S. influence would not imply reduced U.S. force requirements. A Japan feeling betrayed by the U.S. and run by a hostile government would be a Japan potentially threatening to U.S. interests. This might mean an increase in U.S. force requirements, and in extreme cases a dramatic increase in such requirements. But, even more important, in such a situation China would be extremely unlikely to perceive the U.S. as a valuable contributor to containing Soviet influence, and thus China's attitude toward U.S. interests in Asia could turn markedly more hostile. The U.S. could then find itself on the defensive in Southeast Asia and the Western Pacific to a degree that has not been true since the late 1930s. Above all, the U.S. global position would be so weakened vis-à-vis the Soviet Union and China that its strategic and regional military requirements could expand dramatically. Moreover, neither the Soviet Union nor China could remain indifferent to a nuclear Japan, and their responses almost certainly imply a global arms race.

This scenario contains critical implications for Taiwan and South Korea. If those two countries acquire nuclear weapons, they may enhance the likelihood of Japan's moving toward nuclear weapons and thus enhance the likelihood of evolving a tense, dangerous Asia from which U.S. influence has been expelled. The result would be that measures to enhance their security (i.e., nuclear proliferation) would actually have consequences degrading to their security.

Potential U.S. Involvement in Wars Caused by Preemption. One cannot even take for granted that acquisition of nuclear weapons by Taiwan or by Korea would have the relatively benign consequences described above. Events might work out that way, but they might not. In both cases there would be a severe danger of preemptive attack; a North Korea already well on the way to being beaten in the economic and military competition might well feel that acquisition of nuclear weapons by South Korea would end the game once and for all if it were allowed to proceed uninterrupted. Therefore, a desperate preemptive attack could not be ruled out. Such preemption would be even more likely in the case of Taiwan, because of the People's Republic's nuclear superiority. Such a conflict would involve states allied to the United States, in the South Korean case for the indefinite future and in the Taiwan case until December 31, 1979. Hence the U.S., facing nuclear proliferation, would have to acknowledge the possibility of being forced to choose between involvement in nuclear hostilities and abandonment of an ally. Such an abandonment could occur at the time the allies' nuclear weapon program became overt, or it could occur at the time of conflict, but in either case the fact of nuclear proliferation would have greatly raised the political, as well as the military, stakes in the alliance.

The stakes would be raised not only locally but also in the region as a whole. Were Taiwan to acquire nuclear weapons and subsequently to become involved in a military conflict with the PRC, the U.S. could become militarily involved only at great direct military cost and at great direct risk of geographically expanded hostilities. Perhaps more important in the long run, U.S. involvement would jeopardize what appeared in 1978

to be a Chinese political and economic commitment to the West that might persist for generations. On the other hand, such a nuclear war at Japan's doorstep, involving the nuclear subjugation of a country extremely close to the United States and extremely important to Japan, could wreak havoc with the U.S.-Japanese alliance and with U.S.-Japanese relations more broadly. It would be hard to over-estimate the political impact in Japan of such a conflict. Such an event could imaginably set off a political chain of events leading to a nuclear Japan hostile to the United States.

Lest the unqualified implication be drawn that the United States would be better off entering into such a local nuclear conflict and winning it, it must be said that the prognosis for such an adventure to succeed politically would be poor. Successful U.S. military intervention in a nuclear conflict in either Korea or Taiwan would demonstrate U.S. will and power. However, it would also invoke the aversion of the Japanese to nuclear weapons, and revive the theory that America is willing to use nuclear weapons against Asians because of racial differences. The U.S. in a proliferating Asia could get itself into a truly no-win situation.

Implications for U.S. Military Posture in Asia

It is important to put the above speculations in perspective by recalling that most of them are not realistic possibilities until some years hence; those involving Japan are not realistic possibilities for many years hence. Crucially, the driving logic in any of the proliferation and conflict scenarios is not from independently powerful proliferation trends to a reduced U.S. ability to intervene or to influence events. Quite the opposite. The major force driving nuclear proliferation in Pacific Asia would in all cases be Asians who felt they had been abandoned or betrayed by the United States. Such a sense of abandonment would lead to proliferation, which would further reduce U.S. influence.

This is a prospect which the U.S. could face with equanimity if the trend of events would refrain from further development. After all, the U.S. does not seek influence in Asia merely for the sake of influence. It seeks influence in Asia to protect its interests in peace, in the evolution of a politically tolerable Asian environment, in protection of its trade and right to use the seas, and in maintaining a global military balance. What makes the vicious cycle (of reduced U.S. influence--nuclear proliferation--further reduced influence) vicious is not the loss of influence itself, but the danger that in the process the risk of regional or global war begun by preemption would increase, the danger that a global arms race would be triggered, the danger that Japan would become hostile, the danger that proliferation throughout the world would endanger U.S. interests, and the danger that China might turn away from rapprochement.

Much of the discussion of proliferation has been cast in terms of a great balance between the need for nuclear power and the dangers of nuclear

proliferation. That balance is certainly important. But in Asia the decisive balance concerns political-military relationships rather than energy relationships. So long as the United States appears both strong and strongly engaged in Pacific Asia, the potential proliferators lack intense motivation to acquire nuclear weapons, and the United States possesses the leverage to nullify any residual trends toward proliferation that occur. But if the U.S. appears weak and disengaged, then the incentives to proliferation increase and the constraints become attenuated.

Currently the incentives are increasing and the constraints are becoming attenuated at a rapid rate--although the Carter Administration has declared that it intends no further withdrawals from Asia other than the phased withdrawals from Korea, and although the Administration has stated firmly and repeatedly that it intends to remain an Asian power. The aftermath of the Vietnam War, the timing of the original announcement of ground force withdrawals from Korea, the European emphasis of the Carter Administration, the unsuccessful initiatives toward Vietnam, and the emergence of numerous strains over human rights, nuclear proliferation, trade issues and others, have all created a regional crisis of confidence between the U.S. and most of Pacific Asia which has only begun to be addressed by a series of high-level U.S. visitors to Asia beginning in the spring of 1978.

The relationship between the U.S. security presence in Asia and nuclear proliferation thus could take several distinct forms in the future:

1. The crisis of confidence could be reversed by successful negotiation of a Philippine bases agreement, by a moratorium on withdrawals from South Korea or by more careful timing of those withdrawals, by modernization of U.S. forces in the region, by amelioration of strains in the U.S.-Japanese relationship, and possibly by decisive U.S. action in a crisis. Development of a clear and credible

Asia policy, rather than a combination of unrelated Japan policies, Korea policies, Taiwan policies, and Vietnam policies, would be a major step toward such an outcome. Although such a scenario would require a reversal of some Administration priorities and a change in the style used to plan Asia policy, there is precedent for such changes. For instance, Chinese denunciations of the U.S. as a weak appeaser of the Soviet Union have been mollified somewhat by the rise in the defense budget. Chinese officials have expressed considerable satisfaction over the reversal of earlier attempts to reduce the military budget. Normalization will remove many strains. Relations with ASEAN have improved, and the alliance with South Korea has been reaffirmed. Were similar favorable events to dissolve the current crisis of confidence, the U.S. would probably retain sufficient leverage to prevent nuclear proliferation in Taiwan and South Korea and also to prevent potential debacles in South Korea and Taiwan which might later lead to Japanese proliferation.

2. Alternatively the crisis of confidence could become more severe, but the U.S. might retain sufficient control over the nuclear energy facilities of Taiwan and South Korea to prevent their becoming nuclear weapon states. The danger in such a scenario would be that Chinese and Japanese disenchantment with U.S. policies in the region could weaken political ties, and that either China or North Korea might take advantage of perceived U.S. weakness to initiate a conflict with South Korea or Taiwan. If the U.S. disengaged from such a conflict, the Japanese would almost certainly be so disillusioned that ties with the United States would attenuate, political parties whose foreign policies have been based upon the Mutual Security Treaty would be discredited, and Japan would sooner or later move down the road toward nuclear weapons and toward either hostility with the U.S. or angry neutrality.
3. Another possibility is that the crisis of confidence will become more severe and that the U.S. will rapidly lose its ability to prevent nuclear proliferation in the area. This could occur because South Korea and Taiwan come to believe that diplomatic and military ties to the U.S. are worthless and that economic ties are not endangered by proliferation. Their technical ability to obtain nuclear weapons could derive from the development of other sources of technology and uranium--such as France, Germany, Israel, South Africa, and Brazil. In this situation, there would be an initial danger of Chinese or North Korean preemption, followed after some time by the development of stable deterrence if

the period of preemption danger were surmounted. One can imagine this leading to a stable Pacific Asia in which the Chinese and the North Koreans were simply forced to abandon decisively their goal of absorbing their principal adversaries. Conceivably too, Japan's interests in regional stability would be satisfied.

However, this scenario presents two extreme dangers. The period of preemption danger could see war and all the consequences for U.S. relations with Japan that occurred in the above scenario, unless the U.S. made a very substantial effort to protect South Korea and Taiwan during the period of preemption danger. But such a U.S. effort seems psychologically to contradict the basic structure of the scenario, which assumes a U.S. administration that allows U.S. relations with these countries to deteriorate. One can argue that the U.S. might change administrations or policies at this point and save the situation, but one can argue with considerable more confidence that such an administration is more likely to be caught in a vicious cycle of mutual recriminations with its allies that leads to U.S. disengagement in response to their proliferation.

If Taiwan and South Korea did manage to transit the period of preemption danger, either because of U.S. firmness or because Chinese priorities were weighted toward economic development and the Soviets were preoccupied elsewhere, Pacific Asia could conceivably be more stable than it currently is. However, this assumes that the Japanese are able to accept South Korean and Taiwanese nuclear weapon programs without severe consequences for the governing parties and for U.S.-Japanese relations--a possibility that cannot be discounted but that certainly cannot be relied upon either. Furthermore, even if the consequences within Pacific Asia are relatively benign, the precedent of nuclear proliferation in Pacific Asia could lead to proliferation elsewhere, for instance in Brazil or in the Middle East, with considerably less benign consequences.

*Currently the Chinese have launched a massive economic development campaign, whose success depends in part upon U.S. cooperation.

Military Implications

The military implications of the above reasoning need to be drawn in broad brush rather than in specific terms. The problem is not an insufficiency or an excess of particular weapons in particular places. Instead, it is in general patterns of U.S. relationships with the region. Above all, the requirements tend to lie in Asian perceptions of overall American posture rather than in detailed deployments or in stated American rationales. Given this prefatory remark, the following hypotheses suggest themselves:

1. It is very difficult to generate major hardware or deployment requirements from the proliferation scenarios. The basic wars which might occur are the same ones which planning has addressed for many years, namely, a largely conventional war in Korea and a largely conventional war over Taiwan. If either of those conflicts did assume a nuclear dimension, it is not clear that additional deployments beyond those that would be necessary in a non-proliferation environment would be required. The U.S. has been prepared for many years for the possibility that either of these conflicts could go nuclear and is capable of defeating Chinese nuclear initiatives.
2. If the probability that a Korean conflict would become nuclear were greatly increased, then the U.S. would have to worry about its slow nuclear decision process. The principal advantages from nuclear weapons in a Korean war would come in the first hours and

days, when geography would concentrate enemy forces in relatively narrow valleys. Subsequently, enemy tactics (see below) could minimize the utility of nuclear weapons. But the current conventional wisdom is that the U.S. requires about two weeks to deliberate a nuclear decision in Korea, primarily because Washington is not prepared for quick action. There is no consensus about when nuclear weapons would be appropriate, nor are there detailed contingency plans which take into consideration the principal political issues. Speeding up U.S. response time would require several steps. First, the President and his principal aides would have to become familiar with the issues and arrive at a preliminary consensus on the situations where nuclear weapons would be appropriate and on the necessary constraints. Second, the principal defense and foreign policy aides would have to prepare detailed contingency plans derived from Presidential-level policy guidance on such issues as appropriate situations, types of weapons, types of targets, and the diplomacy required toward Japan, China, and the Soviet Union. Third, the logistics network to Korea and within Korea would need to be improved. Fourth, the process of requesting permission for use of nuclear weapons should be standardized and formalized (with, for instance, standard forms containing standard questions, many of which could be partially answered in advance of conflict). Given such preparations, there is reason to believe that decision time could be reduced well below the

decision time required in Europe--because the process of obtaining allied approval would be far less complex dealing with South Korea than dealing with all the conflicting interests within the Council of Europe.

3. Nuclear proliferation would generate some posture changes. Enhanced detection capability could be critical in warning of nuclear danger. Greater dispersion of particular units might be necessary to avoid sudden loss of whole units. Moreover, critical changes in tactics would become necessary. Aside from the familiar changes entailed by a shift from conventional to nuclear modes of operation in Europe, it is reasonable to anticipate some peculiarly Asian requirements. The Chinese and North Koreans would undoubtedly emphasize quasi-guerrilla tactics on a massive scale to minimize their vulnerability. They would exhibit their traditional ability to keep their visibility low when not engaged. For engagements they would move in so close that use of nuclear weapons would endanger friendly forces. Classical tunnel warfare, always emphasized by these countries, would become a principal mode of operation. Ironically, therefore, the U.S. and its allies would face an enhanced need for counter-guerrilla training and even hand-to-hand combat experience.
4. On the other hand, the appearance of a trend toward U.S. disengagement from Asia, and correspondingly heavier priority for Western Europe and the Middle East, must be reversed, and reversed at a relatively early date, if severe dangers are to

be avoided. This means that there is a need for a firmer relationship with Japan, for careful reconsideration of the timing of Korean withdrawals, for articulation of a coherent and persuasive overall Asia strategy for the United States, and perhaps above all for unusual efforts to assure (1) that the U.S. can avoid crises that cannot be handled decisively and (2) that it can act decisively in any crises which do occur. This last requirement refers to such potential incidents as another Pueblo incident, another downing of a U.S. or Japanese plane by communist forces, substantial North Korean challenges to South Korea, and potential challenges to U.S. or Japanese shipping.

5. If proliferation does occur, the U.S. must be prepared either to nurse Taiwan and South Korea through a period of preemption danger by deploying credible conventional forces, or it must be prepared to reinforce Japanese-American relations in such a way as to manage the consequences of Taiwanese or South Korean debacles or both. This writer is skeptical whether any much management of U.S.-Japanese relations is possible.
6. In the event that the worst proliferation scenarios occur, and the U.S. loses its alliance with Japan and its cooperative relationship with China, the global strategic situation of the United States would be transformed past recognition. The ability of the Navy to protect U.S. shipping and to monitor Soviet naval activities would be drastically reduced without extraordinary investment in more ships and in new kinds of

ships. U.S. air power would essentially disappear from the Western Pacific, and loss could be compensated, if at all, only by a further shift toward naval power. U.S. need to ensure a balance of power between the Soviet Union on the one hand and China and Japan on the other would persist, but it would persist without the direct cooperation of China or Japan or both. Soviet resources might be freed for greater engagement in Western Europe or the Middle East or in strategic competition with the United States. This is in some ways a political doomsday scenario, but it is milder in many ways than the consequences of isolationism in the 1930s.

In the actual evolution of U.S. relations with the region, it is unlikely that any of these scenarios would be followed exactly. Both the extremely favorable scenario and the politically disastrous scenario are relatively unlikely, but both of those are well within the range of the possible. The purpose of these scenarios is to clarify the structure of the situation in order to gain some general impressions of the military implications.

Political-Military Implications

The principal conclusion of this paper is that the implications of regional nuclear issues for the small military questions (concerning specific deployments and specific technology) are small, whereas the implications for the largest strategic issues (the global balance, relations with China and Japan, and relations with other U.S. allies) are of potentially overwhelming importance. Potentially at stake are the rapprochement with China, the alliance with Japan, and the future of SALT and other arms control policies.

All of the larger strategic relationships would be influenced in substantial ways by U.S. responses to potential South Korean proliferation. (Taiwan is also important, but not to the extent of Korea.) To date, the U.S. response to proliferation-related issues concerning South Korea has been a threat to sever the alliance. The threat has so far been effective--for instance, in dissuading South Korea from purchasing a French reprocessing facility. But suppose one day the threat becomes ineffective. Would the U.S. act on its threat? The incentive to act would be substantial; U.S. and Japanese public opinion would demand action. Abrogation of the treaty would remove the U.S. from a potential nuclear conflict. And strong action could enhance U.S. credibility in the next proliferation crisis elsewhere. But abrogation of the alliance could badly frighten Japan. It could precipitate a war which at best would lead to substantial Japanese rearmament and severe strains in the Japan-U.S. Mutual Security Treaty. At worse, such a war could trigger regional war (e.g., Sino-Soviet) and then general war. The risks in implementing the threat appear overwhelming.

Because of the great risks in severing the alliance, it has been suggested that the U.S. should simply refuse to help South Korea in any crisis over the nuclear weapons themselves. But such a policy would be either empty (if North Korea took no anti-nuclear action) or else a way of providing North Korea with a strategy for attacking the South with impunity. (The North could simply start a war with an attack on the South's nuclear forces.) Either way, U.S. interests suffer.

Potentially more effective and less risky would be collective economic action against South Korea. While economic embargoes have proved impotent elsewhere, the chances for success may be greater in the Korean

case. Unlike Rhodesia, South Korea is dependent on trade that amounts to more than half its GNP. Unlike Rhodesia, South Korea has no sympathetic South Africa and no dependent African regimes adjacent to it. Japan and the U.S. alone could act decisively, and China and the Soviet Union would undoubtedly provide additional pressure. In both Japan and the U.S., the economic costs would be high, but particularly in Japan the pressures for decisive action would be very strong. (Japan was far more willing than the U.S. to take strong diplomatic positions against India after the 1974 Indian detonation.) But the potential effectiveness of such a policy would depend a great deal on the U.S., Japanese and international moods at the time, and on the pressures that drove South Korea to such rash action. If South Korea went nuclear due to allied desertion and severe external pressures, then it might hold out at any cost and there might be a great deal of international sympathy for its position (especially in the U.S.). Thus, the U.S. might have to add a carrot (expanded security assistance) to its stick in order to be effective. This latter point underlines the basic lesson of this whole analysis, a lesson first illuminated in December of 1941 and later in June of 1950: too little U.S. presence in Asia often generates crises which make it necessary for the U.S. to greatly expand its presence.

Similarities and Differences with Other Regions

The Pacific Asian situation possesses a few similarities to other regions, but the differences are far more striking. It would therefore be foolish to translate the lessons of Pacific Asia directly to other regions.

The basic similarity is between the situation in Pacific Asia and the situation in Western Europe. In Western Europe the U.S. is also dealing with potential proliferators who are formal allies of the United States and who are concerned about U.S. ability and determination to protect them. Because of this, there is a common tradeoff between U.S. conventional forces and the dangers of nuclear proliferation: in both places, the more the U.S. invests in conventional forces, the less likely become both nuclear war and nuclear proliferation. However even this similarity has narrow limits. The U.S. defeat in Vietnam has not affected European allies to the extent that it has affected Asian allies. The U.S. has been strengthening its forces in Western Europe while it has been weakening them in Asia. In Western Europe the U.S. is clearly committed to defense of a certain group of countries and to specific borders; despite the ambiguities of Eurocommunism, U.S. political interests in Europe are relatively straightforward, its military purposes are clear, and it is defending an alliance of territorially contiguous and culturally similar countries among which it cannot pick and choose. In Asia on the other hand U.S. political purposes are a matter of debate, U.S. military commitments are controversial (see Taiwan), and many in the U.S. argue, perhaps wrongly, that the U.S. is able to pick and choose among its Asian allies.

Second, there are major differences in motivation between Pacific Asian countries and many others. While Israel and West Germany, like the U.S. Pacific Asian allies, are motivated primarily by a fear of military attack, the motivations of Argentina and Brazil, of India and Pakistan, and of Iran and South Africa, are much more complex. In particular, prestige and local political influence play much larger roles for many of these

countries. Moreover, with the same exceptions of Israel and West Germany, the proliferation motivations of most countries outside of Pacific Asia are not tied so directly to the issue of U.S. will and credibility as are those of the direct U.S. allies. To be sure, a relationship still exists, but in most cases it is more diffuse and in some cases the fear that the U.S. will defend its allies is a greater motivation than fear that the U.S. will not defend its allies.

Third, only in Pacific Asia does one find a country that is a great power in political-economic terms but is so vulnerable and so averse to any use or development of nuclear weapons as Japan is. The peculiar vulnerabilities of Japan create a unique set of political and military problems for the United States, and the Japanese aversion to any use of nuclear weapons greatly complicates many of the obvious solutions to such problems. For instance, although the Japanese insist on the importance of U.S. determination to defend them with nuclear weapons, they also vehemently insist that the U.S. refrain from overtly stationing nuclear weapons in Japan. While Japan insists that the U.S. defend South Korea and Taiwan, Japan also refuses to promise great cooperation in any such defense, and Japanese public opinion would react violently against the use of nuclear weapons should such use prove necessary.

Thus the implications of potential nuclear proliferation for U.S. military posture in Pacific Asia have more to do with patterns and perceptions within the region than with specific, quantifiable military requirements, and they stubbornly resist generalization to other regions of the world. The paradox of U.S. concern with nuclear proliferation in

Eastern Asia is that the U.S. is on one hand the greatest opponent of nuclear proliferation, but on the other hand is also the greatest source of nuclear technology and a proponent of policies which create military and energy insecurity among allies who respond by interest in nuclear weapons. Since 1975 the problem of U.S. non-proliferation policy in Asia has been the problem of a dog chasing its own tail. A certain humility is therefore in order when Americans lecture Asians on non-proliferation. But it is also appropriate for Americans to urge allies to judge the consequences of proliferation not just in terms of immediate military benefits but also in terms of large-scale systemic costs--costs which they would likely be the first to bear.