

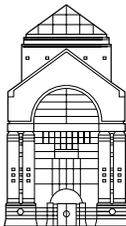


CHAIRMAN OF THE
JOINT CHIEFS OF STAFF
*Strategy Essay
Competition*

Essays
2001

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NATIONAL DEFENSE UNIVERSITY PRESS
Washington, D.C.

2001

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Library of Congress Cataloging-in-Publication Data

Essays 2001 / chairman of the Joint Chiefs of Staff strategy essay competition.

p. cm.

Includes bibliographical references.

ISBN 1-57906-055-2

1. United States—Military policy. 2. National security—United States. 3. United States—Armed Forces. 4. Strategy. 5. World politics—21st century. I. United States. Joint Chiefs of Staff. Joint Chiefs of Staff.

UA23 .E79 2001
355³.033573—dc21

2001044739

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Foreword

The winners of this 20th annual Chairman of the Joint Chiefs of Staff Strategy Essay Competition join an impressive line of gifted men and women who have made significant academic contributions to U.S. national security. Each year the competition challenges students attending professional military education institutions to analyze key elements of defense strategy and recommend areas in which changes or improvements are needed. As in past years, the winning essays are remarkable for their insight and wisdom. Each author provides fresh ideas and thought-provoking suggestions that will stimulate the ongoing debate over defense strategy and priorities during this year of the Quadrennial Defense Review.

In a time of renewal and change for the Armed Forces, the voices of our bright men and women in uniform provide the key ingredients of transformation efforts. The essay competition supports our objectives to maintain the American military's competitive edge as the greatest fighting force in the world.

The first place in this year's event went to an entry on legal requirements for governing cyberspace. Second place was awarded to an essay on U.S. retaliatory policy vis-à-vis chemical and biological attacks. Of the two entries that placed third, one dealt with the need to reevaluate the military professional's perspective on international relations in light of globalization, and the other made some recommendations on strengthening U.S. nuclear nonproliferation policy through enforcement of existing agreements with China.

As you read these four essays, challenge yourself to think of ways to translate the ideas advanced by the authors into strategies and tactics to fight and win in tomorrow's battlespace.

HENRY H. SHELTON
Chairman
of the Joint Chiefs of Staff

Innocent Packets? Applying Navigational Regimes from the Law of the Sea Convention by Analogy to the Realm of Cyberspace

Steven M. Barney

Developments in information operations¹ have provoked considerable debate in legal circles and raised concerns among operational commanders over the legal framework to be applied to information warfare. Some U.S. Government lawyers initially suggested that the application of modern information systems technology to military purposes was so new that no law applied.² However, as lawyers and warfighters began working with the rapidly emerging technology, they recognized that many traditional military activities included under the umbrella of information operations were actually physical attacks on information systems by traditional military means.

Applying international law to information operations involving physical attacks is fairly simple for commanders and their lawyers because international law and customary practice have established the laws regulating traditional military operations. On the other hand, international law principles are more difficult to apply to information attacks that use electronic means to gain access to or change data in an enemy computer system without necessarily damaging the computer itself or the telecommunications infrastructure to which it is attached.³ This void in

Lieutenant Commander Steven M. Barney, USN, won first place with this essay, written while attending the College of Naval Command and Staff. He has been the staff judge advocate, special U.S. attorney, and defense counsel at several naval stations. He is currently assigned to Cruiser Destroyer Group Eight.

international law eventually may be remedied through development of treaties. However, one scholar has observed that “given Internet technology’s exponential growth, it would seem extraordinarily useless to go through a lengthy treaty negotiation process to draft an agreement listing prohibited Internet behaviors or actions that would be as out of date as the computers that began to produce the treaty at the start of the drafting and negotiation process.”⁴ This logic, as well as the lack of widespread experience in cyberspace warfare, suggests that commanders and their lawyers must resort to drawing analogies from custom, treaties, and principles in land, sea, air, and space law to apply to information warfare.

If the realm of cyberspace is accepted as having a strong conceptual parallel to that of physical space, then the navigational regimes applied to physical space under the 1982 United Nations Convention on the Law of the Sea⁵ (UNCLOS III) can be a useful and familiar conceptual framework to apply to planning and conducting operations in cyberspace. This essay explores how the UNCLOS III navigational regimes can be applied by analogy to information operations. It suggests the rights of transit through cyberspace under those regimes and evaluates the advantages and disadvantages of applying the UNCLOS III concepts to information operations. Finally, it proposes that the UNCLOS III analogy can address problems with routing information operations through the telecommunications infrastructure of neutral states.

The discussion of the legal implications of computer network attack (CNA) begins with a scenario. It is 2005. The national command authorities of State A, responding to an unprovoked hostile act against its citizens by the armed forces of State Z, authorize the use of force in national self-defense, citing Article 51 of the Charter of the United Nations.⁶ Because State Z military forces remain a threat, the State A Joint Task Force commander is authorized by superiors to launch a computer network attack⁷ on a State Z military computer system. State A military forces launch the CNA from a military computer system in their own territory. The attack travels in electronic packets through the Internet, through communications networks in States B, C, D, E, F, and G before reaching the desired target in State Z (figure 1). As a result of the attack, State Z military commanders are denied the use of their computer networks to communicate with units in the field.⁸

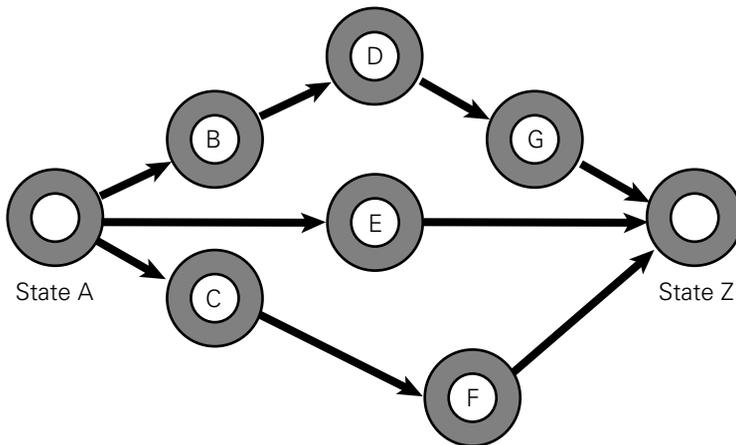
Under international law, did State A have the right to use the international telecommunications infrastructure to transmit a CNA on State Z? Was the territorial sovereignty of intermediate states violated by

the CNA passing through their national telecommunications infrastructure? Did an act of force take place within their territory? Was the neutrality of those states violated? Can State Z insist that neutral states prevent further CNAs from being routed through their telecommunications infrastructure? If the neutral states are willing but technologically unable to prevent the transmission of further CNAs without shutting down their entire telecommunications infrastructure, are the telecommunications nodes in those neutral states subject to attack by State Z? Discussion of these questions begins by examining how the purposes and language of UNCLOS III can be adapted to operations in cyberspace.

Purposes of UNCLOS III

The state parties to UNCLOS III desired to settle law of the sea issues “in a spirit of mutual understanding and cooperation [as an] important contribution to the maintenance of peace, justice, and progress for all peoples of the world.”⁹ The state parties sought to resolve “problems of ocean space” through a regime that provides “due regard for the sovereignty of all states, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.”¹⁰ The state parties

Figure 1: Hypothetical Computer Network Attack



expressly intended that the Convention benefit not only coastal states but also landlocked states and “contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries.”¹¹ The principles of the Convention were premised on a United Nations (UN) General Assembly resolution that “solemnly declared *inter alia* that the area of the seabed and the ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources are the common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States. . . .”¹²

From these ocean policy principles, UNCLOS III created a framework to balance and reaffirm the sovereignty of coastal states where necessary for safety and security while declaring international waters free for the use of all states. This notion of unimpeded high seas freedom of navigation is similar to the views of some who advocate similar rights for Internet users. But that freedom of cyberspace navigation must be balanced against important national interests:

Techno-purists feel that cyberspace is borderless; there are no national or regional boundaries to inhibit anyone from communicating with anyone by phone, across the network, or across the universe. And from one perspective we must agree: If cyberspace is “that place in between” the phones or the computers, then there are no borders. As we electronically project our essences across the network, we become temporary citizens of cyberspace, just like our fellow cybernauts. By exclusively accepting this view, however, we limit our ability to create effective national information policies and to define the economic security interests of our country.¹³

A sound policy that balances international freedoms in cyberspace with legitimate concerns about national security may be achieved by applying the navigational regimes of UNCLOS III to the medium of cyberspace. Borrowing from the language of the Convention, such global cyberspace policies, fairly applied, could:

- make an important contribution to the maintenance of peace, justice, and progress
- resolve problems of cyberspace
- provide due regard for the sovereignty of all states
- facilitate international communication

- promote peaceful uses of cyberspace and the equitable and efficient utilization of its resources
- aid the study, protection, and preservation of the cyberspace environment
- contribute to the realization of a just and equitable economic order that takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries
- establish international cyberspace as beyond the limits of national jurisdiction, as a common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole irrespective of the geographical location of states.

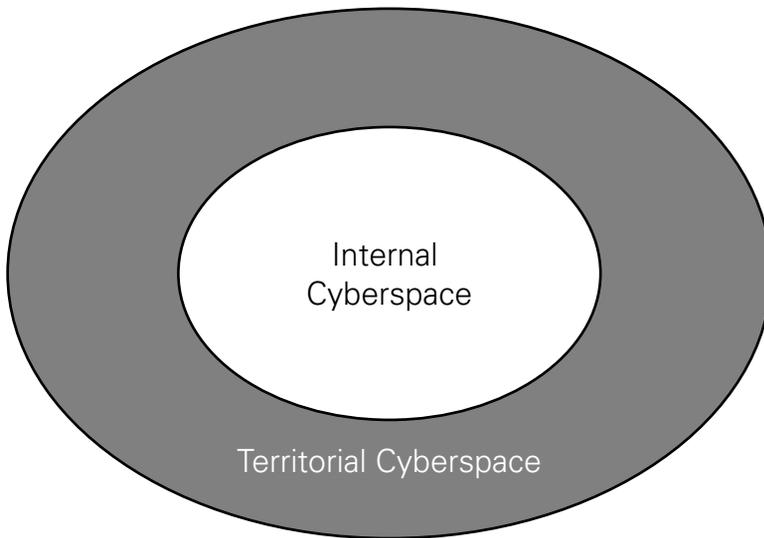
Such an application of the underlying purposes of UNCLOS III to the cyberspace medium could have a positive effect on the international development of cyberspace. A test of the usefulness of this analogy in preserving national sovereignty would be how well two important access rights under UNCLOS III, *innocent passage*¹⁴ and *transit passage*,¹⁵ might be applied to military operations in cyberspace.

Dividing Cyberspace

The analogy is premised on identifying cyberspace navigational regimes similar to the maritime navigational regimes from UNCLOS III. To be recognized as valid, the cyberspace analogy must be consistent with the underlying policy embodied in UNCLOS III and be applied fairly, neither creating new rights for states nor infringing on existing ones. The analogy must use a balanced, rational approach to divide the intangible medium of cyberspace into areas in which sovereign rights of the individual state are preserved. It must also recognize that the Internet is part of an international telecommunication system in which freedom of access benefits all states and to which any artificially drawn boundaries would have to be consistent with legitimate issues of national sovereignty and customary international law. With those objectives in mind, the proposed analogy divides cyberspace into regimes called *national cyberspace* (figure 2)—consisting of internal cyberspace and territorial cyberspace—and *international cyberspace*.

National Cyberspace

National cyberspace is the region of cyberspace in which individual states require substantial sovereign rights to preserve the political and

Figure 2: National Cyberspace

economic security of the state. The region is subdivided into *internal* and *territorial* cyberspace. Understanding the distinction between internal and territorial cyberspace is necessary to frame the overall rights and interests of sovereignty that a state may exercise in national cyberspace.

Internal Cyberspace

Internal cyberspace is the region in which a state may exercise complete sovereignty; it is the cyberspace equivalent to the land space, internal waters, and airspace above a state.¹⁶ Internal cyberspace is that medium serviced by the state's national telecommunications infrastructure¹⁷ that is normally accessible only to authorized users (persons with the specific permission of the computer system administrator). It includes the internal telecommunications systems of businesses and institutions that connect to the international telecommunications infrastructure by a combination of connections, including cables, wires, microwave transmitters, and satellite ground stations. The internal cyberspace of the United States includes sensitive government telecommunication infrastructure and computer networks (for example, the Secret Internet Protocol Router Network,

a computer network used for classified communications within the Department of Defense) and the equivalent internal communication networks used by businesses and organizations. Such networks, described as *critical infrastructure* by President William Clinton in Executive Order 13010, include infrastructures so vital that their incapacitation or destruction would have a debilitating impact on the defense or economic security of the United States.¹⁸ President Clinton acknowledged that, because so many of these critical infrastructures are owned and operated by the private sector, “it is essential that the government and private sector work together to develop a strategy for protecting them and assuring their continued operation.”¹⁹ For this reason, states may establish laws to prohibit unauthorized intrusion into internal cyberspace. Moreover, as a matter of national security, the protection of internal cyberspace requires the combined efforts of military and civil authorities to establish a robust defense.²⁰

Because states have interests in protecting their critical information infrastructure, the commander must evaluate the political and military risks associated with information operations that intrude into the internal cyberspace of another state. Lawyers may provide guidance to the commander using analyses similar to those used when an intrusion of internal waters, land space, national airspace, or the territorial sea is contemplated. Depending on the circumstances of the operation, those lawyers would likely recommend a commander consult with superiors and seek permission, if possible, before intruding into another state’s internal cyberspace.²¹ Generally, such an intrusion for the purpose of conducting military operations—including a use of force against that state to degrade, neutralize, or destroy a computer network—would be lawful if the underlying use of force is authorized under Article 2(4) or Article 51 of the Charter of the United Nations.²²

A state would have more difficulty determining the appropriate response to an intrusion into its internal cyberspace by a foreign state. An intrusion for the limited purpose of collecting intelligence probably would not be considered a “use of force” that would immediately entitle the aggrieved state to respond with force in self-defense. In such a case, the most appropriate response by the aggrieved state would be to lodge a diplomatic protest of the unauthorized intrusion with the offending state, as is frequently done by nations that have discovered another state conducting espionage within their sovereign territory. However, if a state determines the intrusion constitutes a grave breach of its national security, use of force may be among the range of response options. An

example of such a grave breach of national security would be the insertion of a computer virus into a military command and control computer network. Assuming the intruder could be identified, any response involving the use of force by the aggrieved state must be premised on self-defense and limited in scope to what is necessary and proportional to negate the danger posed by the intrusion.²³

Without clear demarcation of borders or boundaries, determining when an information operation is at the point of intruding into internal cyberspace may be difficult. However, the practice among Internet users has begun to suggest virtual boundaries that may help avoid unintentional intrusions into internal cyberspace. For example, some Internet sites are restricted to authorized users who register, obtain a password, or pay a fee to view materials or buy products or services on the site. Commanders conducting information operations probably should consider these types of owner/operator restrictions as *prima facie* evidence that the site is within the internal cyberspace of a state. The decision to intrude upon the site without authorization should be subjected to the risk analysis described above. The mere use of a warning banner screen²⁴ indicating that access to the site is limited to authorized users probably is not sufficient to indicate the site is within a state's internal cyberspace. However, the Department of Defense (DOD) Office of General Counsel suggests that it may be possible to specify certain information systems or Internet sites as "vital to national security." This designation would give those systems high priority for security measures or warn an intruder that an attack on the system could trigger an active defense that could damage the intruder's computer.²⁵ A prudent commander will conduct a risk analysis based on the specific warning language on the site and consult with qualified counsel before authorizing the intrusion to determine whether an unauthorized intrusion, if detected, might trigger a defensive response or diplomatic protest.

Territorial Cyberspace

Territorial cyberspace is that portion of national cyberspace through which, and to which, governments, commercial enterprises, or private organizations allow generally unrestricted access. An example of territorial cyberspace of the U.S. Government is the new Internet site, www.FirstGov.gov.²⁶ Developed as a single point of access to scores of Government Web sites, FirstGov.gov enables anyone with access to the World Wide Web to surf for information about Government agencies. A potential adversary lawfully could use this Web site's national intelligence

capabilities to collect open-source intelligence (OSINT) information about the Government. Similarly, hundreds of thousands of businesses and noncommercial organizations maintain sites on the World Wide Web and provide access to users from all over the world. No restrictions currently exist on agents or employees of Government agencies, corporations, noncommercial organizations, and individual persons surfing those Web sites, sending e-mail, and transferring files and funds within the territorial cyberspace of a state.²⁷

Internal and territorial cyberspace together comprise the national cyberspace of a state. Within this area, states may promulgate laws to govern access to national cyberspace and exercise police power, including the power to initiate criminal prosecution against individuals who violate state laws and who are subject to personal jurisdiction of the state.²⁸ States may exercise judicial authority over activities in national cyberspace, including laws to prohibit criminal acts (such as threats to harm the person or property of another), promote consumer protection, and enforce commercial contracts (subject to the requirement of having jurisdiction over a party).²⁹ Unlike OSINT activities in territorial cyberspace, which are lawful, a person who conducts intelligence collection activities that involve an unauthorized intrusion into internal cyberspace may be subject to criminal jurisdiction in the state where the penetration occurred.³⁰

International Cyberspace

The regime of international cyberspace is more difficult to define because UNCLOS III does not specifically define a physical space counterpart. The *Commander's Handbook on the Law of Naval Operations* defines international waters "for operational purposes . . . [as] all ocean areas *not subject* to the territorial sovereignty of any nation."³¹ Similarly, UNCLOS III identifies the high seas as comprising "all parts of the sea that are *not included* in the exclusive economic zone, in the territorial sea, or in the internal waters of a State."³² The *not subject* and *not included* language in both definitions is significant in several respects. First, it reflects the primary approach taken in UNCLOS III to define those waters subject to the national jurisdiction of coastal states and leave all other waters outside the jurisdiction of any state. Second, by defining international waters and the high seas in the negative—*not subject* to, and *not included* in, coastal state jurisdiction, respectively—it reinforces the notion that, except for areas of the ocean in which coastal states have clearly identifiable and protected interests, no state has the right to declare jurisdiction over international waters. Finally, it suggests that the approach advocated for defining navigational

regimes in cyberspace is consistent with the intent of UNCLOS III because it reinforces the underlying principle that, outside national cyberspace, commanders may move cyberforces without restrictions by other states, giving due regard to the rights of others.³³ Therefore, international cyberspace is not a physical place; it is a *characteristic* of cyberspace by which a data packet is not physically present anywhere but is merely in transit within the international telecommunications infrastructure and therefore not subject to the territorial sovereignty of any state.³⁴

In light of this analogy, because states could exercise jurisdiction over national cyberspace, they may be able to close their national cyberspace to information operations. Although this outcome is possible, it is not probable because one of the characteristics of the Internet is that no single organization controls access to the World Wide Web, “nor is there any centralized point from which individual Web sites or services can be blocked from the web.”³⁵ To close national cyberspace would require the state to cut off almost all access to its own domestic telecommunications network, a measure that would be extremely disruptive and unsuitable except in the most grave threats to national security. However, if access to national cyberspace is merely restricted and telecommunication nodes are still accessible to international cyberspace, then the UNCLOS III analogy provides two exceptions to the sovereignty of coastal states over national waters: innocent passage and transit passage.³⁶ These transit rights could be exercised to “move” cyberforces through national cyberspace without the obligation to notify the state or any intermediate states, as suggested in the hypothetical scenario at the beginning of this essay.

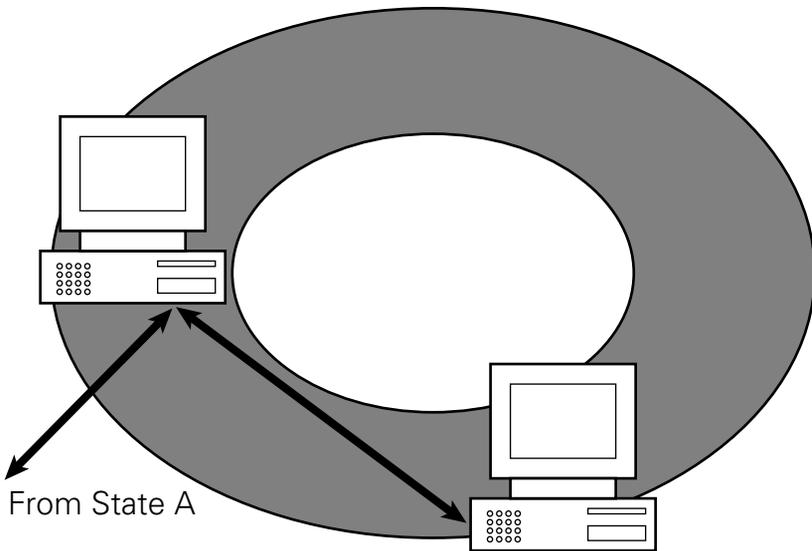
Innocent Passage and Transit Passage in Cyberspace

The rights of both innocent passage and transit passage under UNCLOS III are exceptions to the general rule that coastal states may limit access by foreign ships to national waters. While warships may exercise both innocent passage and transit passage, both passage rights have specific limitations that must be considered by the operational planner seeking to employ either or both as a legal basis to move forces through physical space. Cyberspace transit passage is the preferred, though not the exclusive, mode that could be employed for cyberspace navigation. The following brief analysis demonstrates that the right of transit passage gives the commander more flexibility than does the right of innocent passage.

The right of innocent passage gives the ships of all states the right to traverse the territorial sea in a continuous and expeditious manner, so long as that passage is not prejudicial to the peace, good order, or security of the coastal state. Certain actions by a warship or state vessel may be considered “not innocent” and thus inconsistent with the right of innocent passage through the territorial sea of a coastal state under Article 19 of the Convention. Those limitations, coupled with the right of coastal states to suspend temporarily the right of innocent passage when necessary for their security, reduce the value of innocent passage to the operational planner. Applying those same limitations to the right of innocent passage through territorial cyberspace (figure 3), an operational planner may be unable to rely on unfettered use of cyberspace innocent passage if the cyberforce could be characterized as violating any of the proscribed activities listed in Article 19 of the Convention.³⁷

Analysis of the factors that the Convention labels “prejudicial to the peace, good order or security of the coastal State” if conducted in the territorial sea suggests that any right of innocent passage would be at least as limited in territorial cyberspace. In particular, restrictions under Article 19(2)(a) and (k) could directly affect a military operation involving

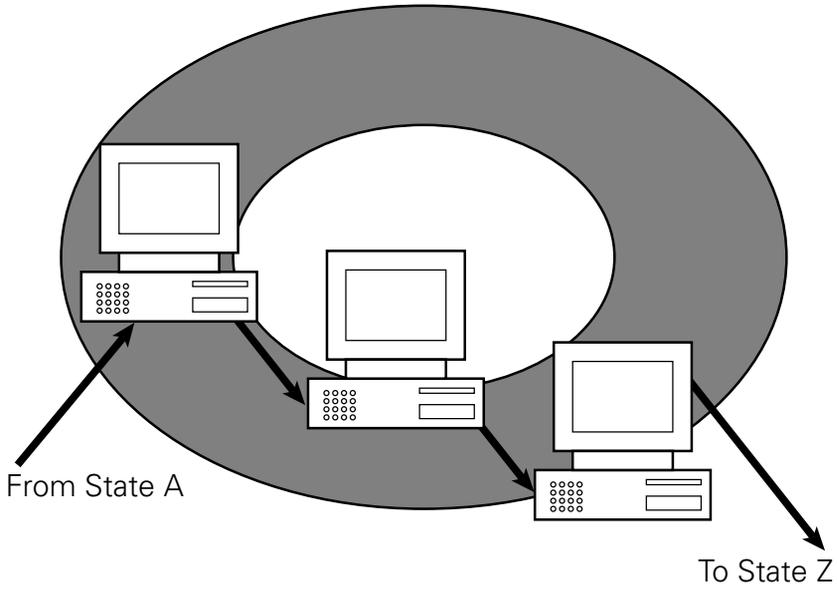
Figure 3: Cyberspace Innocent Passage, State B



CNA if the effect of the threat or use of force actually interferes with communications, facilities, or installations of the transited state.³⁸ However, if no action or use of force is intended against the transited state, then cyberspace innocent passage may be authorized.

A thornier problem with using innocent passage to justify movement of force through cyberspace is the proscription against “any threat or use of force against the sovereignty, territorial integrity, or political independence of the coastal state, or in any other manner in violation of the principles of international law embodied in the charter of the United Nations.” Even assuming no threat or use of force is directed against the transited state, the issue remains whether innocent passage through cyberspace may be limited if the use of force is targeted against a third state. The U.S. view of military use of innocent passage has been that “cargo, destination, or purpose of the voyage can not be used as a criterion for determining that the passage is not innocent” and that “possession of passive characteristics, such as the innate combat capabilities of a warship, do not constitute ‘activity’” within the territorial sea in regard to the enumerated list.³⁹ Applying that rationale to cyberspace innocent passage, the fact that a cyberspace transmission contains an information weapon with destructive capability does not render passage non-innocent.

Therefore, the maritime navigational regime of transit passage provides significantly greater flexibility to the commander than does innocent passage and, when applied by analogy to cyberspace operations, more closely matches how the international telecommunications infrastructure supports information operations (figure 4). In maritime navigation, the right of transit passage allows all ships and aircraft freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of the international strait from one part of the high seas or an exclusive economic zone to another. Ships and aircraft exercising the right of transit passage may proceed without delay through or over the strait, in their normal mode of operations, and must refrain from the threat or use of force against the sovereignty, territorial integrity, or independence of states bordering the strait.⁴⁰ Therefore, the rights of all states to exercise transit passage would be violated if, for example, Spain or Morocco closed the Strait of Gibraltar to ships and aircraft transiting between the Atlantic Ocean and the Mediterranean Sea. The right of transit passage through these *physical* international straits is important to the international economy, communications, and national and collective self-defense. Similarly, states and their

Figure 4: Cyberspace Transit Passage

people must use their national telecommunications infrastructure to access international cyberspace. Therefore, the state's national telecommunications infrastructure is the cyberspace equivalent of an international strait.

When navigating cyberspace international straits, users behave much like ships and aircraft engaged in transit passage: they proceed without delay, in the normal mode of continuous and expeditious transit, and refrain from any threat or use of force against the national cyberspace through which their communication is routed. The nature of telecommunications means cyberforces transit cyberspace almost instantaneously and without delay, except as limited by system bandwidth during periods of peak demand. The high speed of transmission is valuable to the commander as well as the state through which the cyberforce is transmitted. The combination of speed and volume of Internet traffic means most states have limited capability to intercept and monitor cyberspace communications. This limited interception and monitoring capacity is important to maintaining the neutrality of states that are

mere intermediaries in information warfare because the transited state is unlikely to be aware of the transmission.

In summary, transit passage provides the commander two major advantages over innocent passage: forces may transit in their normal mode of operation,⁴¹ and bordering states may not suspend the right of transit passage through international straits. The proscription against suspending transit passage is a strong argument for applying UNCLOS III to cyberspace. Governments, corporations, and private organizations may choose to suspend access to their internal cyberspace for various reasons, but as global economies become more dependent on the international telecommunications infrastructure, states probably could not or would not entirely close national cyberspace. Even if a state tried to close national cyberspace, the ability to transfer CNA packets through international cyberspace would hardly be affected because packets are automatically rerouted if intermediate routers are not available. Finally, the mere act of a belligerent state specifically routing a CNA through the cyberspace of a neutral intermediate state would not violate the neutrality of the transited state according to the cyberspace transit passage analogy.

Neutrality in the Era of Cyberwarfare

Codification of the navigational regimes in UNCLOS III had an immediate impact on the application of customary international law of armed conflict to the maritime environment. Rear Admiral Horace B. Robertson, USN (Ret.), observed that the navigational regimes of UNCLOS III directly affected the rights of neutral states. Robertson noted:

One of the advantages of the new transit passage concept is that it keeps the littoral states bordering straits with great strategic value out of the vicious circle of escalation in times of tension and crisis. If transit through such straits were subject to the discretion of the coastal states, they would unavoidably become involved even if the discretionary power were to be exercised evenhandedly. . . . The escalation-preventing quality of transit passage in times of tension and crisis—that is, in time of fragile peace—[is] even more important for neutral states in times of armed conflict.⁴²

This advantage is beneficial to states that are neutral in international armed conflict and is equally applicable to both traditional military operations and information operations.

The right of states to remain neutral in international armed conflict is well established under international law. The Hague Convention

No. XIII, *Concerning the Rights and Duties of Neutral Powers in Naval War*,⁴³ is the latest expression in treaty form of the respective rights and duties of neutrals and belligerents concerning hostile activities within neutral maritime territory (internal waters and the territorial sea). Therefore, the Convention is a useful starting point for discussion of these issues for our UNCLOS III analogy.⁴⁴

UNCLOS III and the international law of armed conflict created special challenges for neutral states that must be reconciled with Hague XIII.⁴⁵ Hague XIII uses the terms *neutral waters* or *waters within its jurisdiction*; other references are made “either to the internal waters or the territorial waters (territorial sea) of the neutral state,” since those were the only areas of the oceans recognized at that time as being within the jurisdiction or sovereignty of the coastal state.⁴⁶ The cardinal principle of the law of neutrality is that belligerents may not conduct hostilities in or on neutral territory, land, or sea. Neutral states are obligated to conduct surveillance of their waters to ensure that belligerents do not violate their neutrality and to take preventive or corrective action if they detect such violations.⁴⁷ As the application of the law of neutrals has evolved through state practice over time, so too the changes in technology, including information warfare, do not cause states to discard those aspects of international law concerning neutrals that have become customary.

Robertson concluded that since the same rules apply to the post-UNCLOS III territorial sea that formerly applied in the narrow territorial sea, “as a matter of principle belligerents are bound to respect the sovereignty of neutral powers and to abstain, in neutral territory or neutral waters from any act of warfare. Any act of hostility, including capture and the exercise of the right of search, committed by belligerent warships in the territorial waters of a neutral power, constitutes a violation of neutrality and is strictly forbidden.”⁴⁸

Counterbalancing this requirement for belligerents to refrain from violating neutrality is the obligation of the neutral state to conduct surveillance in its territorial waters to ensure belligerents comply. In an observation that illustrates the difficulty of conducting surveillance of national cyberspace, Robertson noted the perils created for the neutral state under UNCLOS III:

The emergence of a “new” peacetime regime for the oceans, with its expansion of existing zones subject to national jurisdiction and the creation of new zones also subject to the same or similar forms of jurisdiction, has created problems of adaptation of the traditional rules of

armed conflict at sea to these new developments. . . . As has been suggested by the foregoing analysis, however, the geographic and operational factors that determine the nature and scope of naval operations in time of armed conflict, and, in particular, the relationships between belligerent and neutral forces, render it uncertain as to whether such mechanical application of prior rules to new or expanded areas of national jurisdiction serves the best interests of either neutrals or belligerents or the humanitarian objectives of the rules. Massive expanses of waters that are denied to belligerents for hostile operations and for which neutral States have burdensome duties of surveillance and control are likely to increase beyond belligerents' power to resist the temptation to violate such waters and to overtax the capabilities of neutral States to enforce their duties within them. The result may well be increased tension between neutral and belligerent States with the consequent danger of widening the area of conflict and drawing neutral States into it.⁴⁹

Robertson's recommendations for reformulating the rules of naval warfare that are affected by the emergence of new zones in the "new" law of the sea could serve as a useful policy to protect the rights of neutrals. This protection could be achieved by guaranteeing that the mere transit of a computer network attack through a neutral state's national cyberspace would not cause the loss of neutral status. Commanders and their lawyers readily could adapt these recommendations (see appendix) to the emerging requirements for the new zones of cyberspace described in this essay.⁵⁰

Conclusion

This essay has proposed that the navigational regimes under the 1982 UN Law of the Sea Convention could apply to information operations involving a computer network attack. The computer network attack described in the opening scenario could be lawfully transmitted through the international telecommunications infrastructure, including Internet routers physically located in neutral states, by applying cyberspace analogies of innocent passage or transit passage. The concept of cyberspace transit passage gives commanders greater flexibility for information operations than does cyberspace innocent passage because UNCLOS III gives states the right to suspend innocent passage temporarily. During the immediate transmission of a CNA to the intended target in the hypothetical example, the attack passed through international cyberspace. Therefore, the territorial sovereignty of those intermediate states was not violated,

nor did an act of force take place within their territory. For that reason, and because most states lack the technological means to detect, intercept, and identify the CNA as it passes through the Internet, those neutral states had no obligation to prevent the transit of their national cyberspace, and their status as neutrals was not violated. This analogy could provide a future Joint Task Force commander with the conceptual tools needed to plan more effectively and conduct operations in and through cyberspace with greater certainty that the courses of action involving the use of force in cyberspace will comply with international law.⁵¹

Appendix

A Proposal to Adapt Selected Principles from The Hague Convention No. XIII, Concerning the Rights and Duties of Neutral Powers in Naval War, to Information Operations

3. Neutral [cyberspace] consists of the internal [cyberspace], territorial [cyberspace], and where applicable, the [national cyberspace], of a state which is not a party to the armed conflict.

4. Within neutral [cyberspace], hostile acts by belligerent forces are forbidden. A neutral state must exercise such surveillance and enforcement measures as the means at its disposal allow to prevent violation of its neutral [cyberspace] by belligerent forces.

5. Hostile acts within the meaning of paragraph 4 include . . . use [of neutral cyberspace] as a base of operations.

6. Subject to the duty of impartiality, and under such regulation as it may establish, a neutral State may, without jeopardizing its neutrality, permit the following acts within its neutral [cyberspace]:

a. Innocent passage . . .

7. A belligerent [may not cause a transmission with offensive information operation capability to] extend its stay in neutral [cyberspace].

8. Belligerent [states] may exercise the right of transit passage through neutral international straits [in cyberspace]. While within neutral [cyberspace] comprising an international strait . . . belligerent . . . forces are forbidden to carry out any hostile act.

9. Should a neutral state be unable or unwilling to enforce its neutral obligations with respect to hostile military activities by belligerent . . . forces within its neutral [cyberspace], the opposing belligerent may use such force as is necessary within such neutral [cyberspace] to protect its own forces and to terminate the violation of neutral [cyberspace].

10. A neutral state shall not be considered to have jeopardized its neutral status by exercising any of the foregoing neutral rights nor by allowing a belligerent State to exercise any of the privileges permitted to a belligerent state.

Source: Horace B. Robertson, *The "New" Law of the Sea and the Law of Armed Conflict at Sea* (Newport, RI: Center for Naval War Studies, Naval War College), 302–304.

Notes

1. Joint Chiefs of Staff, *Joint Doctrine for Information Operations*, Joint Publication 3–13 (Washington, DC: Joint Chiefs of Staff, 1998). “Information Operations (IO) involve actions taken to affect adversary information and information systems while defending one’s own information and information systems. Information Warfare (IW) is IO conducted during time of crisis or conflict (including war) to achieve or promote specific objectives over a specific adversary or adversaries. . . . Major capabilities to conduct IO include, but are not limited to, OPSEC [operations security], PSYOP [psychological operations], military deception, EW [electronic warfare], and physical attack/destruction, and could include computer network attack. IO related activities include, but are not limited to, public affairs (PA) and civil affairs (CA) activities” (I.1.a).

2. Walter Gary Sharp, Sr., *Cyberspace and the Use of Force* (Falls Church, VA: Aegis Research Corporation, 1999), 5.

3. Department of Defense, Office of General Counsel, *An Assessment of International Legal Issues in Information Operations*, 2^d ed. (Washington, DC: Government Printing Office, 1999), 4.

4. George K. Walker, “Information Warfare and Neutrality,” *Vanderbilt Journal of Transnational Law* 33, no. 5 (November 2000), 1187.

5. The 1982 UN Convention on the Law of the Sea, the third UN convention on this subject, opened for signature on December 10, 1982, and came into force November 16, 1994. U.S. Naval War College, Oceans Law and Policy Department, *Annotated Supplement to the Commander’s Handbook on the Law of Naval Operations*, NWP 1–14M (Newport, RI: Naval War College, 1997), 1.1, 1–3.

6. Article 51 recognizes the “inherent right of individual or collective self defense” if an armed attack occurs against a member of the United Nations.

7. *Joint Doctrine for Information Operations*, GL–5. A computer network attack comprises “operations to disrupt, deny, degrade, or destroy information resident in computers and computer networks, or the computers and networks themselves.”

8. Further assume that the use of force in self-defense by State A was lawful under the attendant circumstances, that disrupting State Z’s computer network achieved a definite military advantage, and the use of force did not exceed what was necessary to prevent further attacks.

9. UN Convention on the Law of the Sea, Preamble.

10. *Ibid.*

11. *Ibid.*

12. *Ibid.*

13. Winn Schwartau, *Information Warfare: Chaos on the Electronic Super Highway* (New York: Thunder’s Mouth Press, 1994), 327.

14. *Ibid.*, part II, sec. 3.

15. *Ibid.*, part III, sec. 2.

16. The 1982 UNCLOS III Convention declares national airspace to extend seaward from the land to the limit of the territorial sea.

17. The term *national telecommunications infrastructure* should be understood, in this context, to include both government and private telecommunications systems and not solely systems administered by and for the exclusive use of the state.

18. Signed on July 15, 1996, Executive Order 13010 divided the critical infrastructure into eight categories: telecommunications; electrical power systems; gas and oil storage and transportation; banking and finance; transportation; water supply systems; medical, police, fire, and rescue services; and continuity of government.

19. Sharp, 198.

20. For an extensive discussion of operational considerations for computer network defense, see James P. Terry, “Responding to Attacks on Critical Computer Infrastructure: What Targets? What Rules of Engagement?” *Naval Law Review* 46, 1999.

21. For guidance on the use of force, see Joint Chiefs of Staff, *Chairman of the Joint Chiefs of Staff Standing Rules of Engagement For U.S. Forces*, CJCSI 3121.01, Enclosure A (Washington, DC: Joint Chiefs of Staff, 2000).

22. Article 2(4) expressly prohibits the use of force in international relations except as authorized by the UN Security Council under Chapter VII, or in national or collective self-defense under Article 51.

23. Sharp, 100.

24. U.S. Government Web sites normally include a banner screen both greeting and alerting users and intruders that they are entering a Government Web site and advising of the penalties for unauthorized access.

25. *An Assessment of International Legal Issues in Information Operations*, 47.

26. <http://www.FirstGov.gov>. Visitors to the Web site are welcomed with the following notice: "Welcome to FirstGov—the first-ever government website to provide the public with easy, one-stop access to all online U.S. Federal Government resources. This cutting-edge site gives the American people the 'Information Age' government they deserve. By using the wonders of information technology to bring government closer to the American people, we can expand the reach of democracy and make government more responsive to citizens."

27. The possible economic restriction, that a user must first have a computer with a connection to the Internet, does not change the fact that once connected to the Internet, the user is free to go anywhere.

28. Under criminal law, for a person to be tried by a court he or she must be physically present within the jurisdiction of the court. This concept is called *in personam*, or personal jurisdiction.

29. The question of personal jurisdiction for activity in cyberspace is beyond the scope of this essay. The discussion of jurisdiction is intended merely to show the extent of national sovereignty that a state may exercise over activities conducted in national cyberspace.

30. While international law does not prohibit states from conducting espionage, states may prosecute an individual who conducts espionage if he or she is found within the physical territorial jurisdiction of the state. See Roger D. Scott, "Territorially Intrusive Intelligence Collection and International Law," *Naval War College International Law Studies* 68, 1978–1994 (1995).

31. *Commander's Handbook*, at 1.5. Italics in original. For the purposes of this essay, the term *nation* in the *Commander's Handbook* is the equivalent of *state*.

32. UNCLOS III, part VII, sec. 1, Article 86. Italics added. The regime of exclusive economic zones (EEZs) is unique to physical space. Although coastal states retain specific rights over the resources found within the water column in the EEZ, those rights do not otherwise restrict the freedom of all states within the international waters, provided those freedoms are exercised with due regard to the rights of the coastal state. See *idem*, Article 58.

33. Sharp, 15.

34. Walker, 1104.

35. *Ibid.*, 1099.

36. Horace B. Robertson, *The "New" Law of the Sea and the Law of Armed Conflict at Sea* (Newport, RI: Center for Naval War Studies, Naval War College), 286. Discussing the EEZ, quoting Ambassador Elliott Richardson, "In the group which negotiated this language it was understood that the freedoms in question . . . must be *qualitatively* and *quantitatively* the same as the traditional high-seas freedoms recognized by international law: they must be qualitatively the same in the sense that the nature and extent of the right is the same as the traditional high-seas freedoms; they must be quantitatively the same in the sense that the included uses of the sea must embrace a range no less complete—and allow for the future uses no less inclusive—than traditional high-seas freedoms" (119).

37. The activities proscribed under Article 19 include:

(a) any threat or use of force against the sovereignty, territorial integrity, or political independence of the coastal state, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;

- (b) any exercise or practice with weapons of any kind;
- (c) any act aimed at collecting information to the prejudice of the defense or security of the coastal State;
- (d) any act of propaganda aimed at affecting the defense or security of the coastal state; . . .
- (f) the launching, landing, or taking on board of any military device;
- (g) the loading or unloading of any commodity, currency, or person contrary to the customs, fiscal, immigration, or sanitary laws and regulations of the coastal state;
- (h) the act of willful and serious pollution contrary to this Convention; . . .
- (j) the carrying out of research or survey activities;
- (k) any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal state;

(l) any other activity not having a direct bearing on passage.

38. It may be argued that the remainder of the limitations under Article 19(2) could further limit the right of innocent passage in cyberspace, but a complete discussion of those limitations is beyond the scope of this article. Some problem areas include the following subarticles:

(a) the question of when a military operation in cyberspace constitutes a use of force requires applying the legal restraints on the use of force imposed by Article 2(4) of the Charter of the United Nations. See Sharp, “What constitutes a prohibited ‘threat or use of force’ in cyberspace and elsewhere is a question of fact that must be subjectively analyzed in each and every case in the context or all relevant law and circumstances” (137). . . .

(c) the ordinary use of the Internet to collect open-source intelligence (OSINT); . . .

(g) the loading or unloading of a computer sniffer program, virus, logic bomb, or Trojan horse as a “commodity” contrary to the laws and regulations of the coastal state;

(h) any action, willfully targeted toward another state, that results in serious pollution contrary to the Convention, affecting the coastal state; . . .

(j) research or survey activities intended to identify features and vulnerabilities of the telecommunications infrastructure of the state;

(k) the broad proscription on interfering with “any systems of communication” of the coastal state may be invoked if actions directed against a third state have a foreseeable collateral effect on the coastal state;

(l) the “other activity not having a direct bearing on passage” language points to the underlying assumption of innocent passage, which is specifically a limited waiver of territorial sovereignty only when passing through the territorial sea or cyberspace.

39. *Commander’s Handbook*, Sec. 2.3.2.1, 2–8, footnote 27, summarizing testimony of Professor (Rear Admiral) H.B. Robertson, House Merchant Marine and Fisheries Committee, 97th Congress, hearing on the status of the Law of the Sea Treaty negotiations, July 27, 1982, Ser. 97–29, at 413–14, and Professor Bernard H. Oxman, paragraph 2.1.1, note 2 (2–1), at 853, respectively.

40. UNCLOS III, part III, sec. 1, articles 34–39.

41. For submarines, submerged; for aircraft carriers, while conducting flight operations; for aircraft, while flying defensive cover for transiting surface ships.

42. Robertson, 282, quoting Elmer Rauch, *The Protocol Additional to the Geneva Conventions for the Protection of Victims of International Armed Conflicts and the United Nations Convention on the Law of the Sea: Repercussions on the Law of Naval Warfare* (Berlin: Duncker and Humblot, 1984).

43. Hague Convention No. XIII, The Hague, October 18, 1907, 36 Stat. 2415, 2 Am. J. International L. (Supp) 202. Hague XIII has not received universal ratification, but most of its provisions are considered a statement of customary international law.

44. Robertson, 276, footnote omitted.

45. The significant provisions of the Hague Convention No. XIII are as follows:

Article 1. Belligerents are required to respect the sovereign rights of neutral states and to abstain from acts that would constitute a violation of neutrality; . . .

Article 5. Belligerents cannot use neutral ports or waters as a base of operations nor erect any apparatus to communicate with belligerent forces at sea; . . .

Article 8. A neutral government must employ the means at its disposal to prevent the fitting out or arming of vessels within its jurisdiction which it believes are intended for cruising or engaging in hostile operations and to prevent departure from its jurisdiction of such vessels;

Article 9. A neutral state must apply its rules and restrictions impartially to the belligerents and may forbid the entry of vessels that have violated its rules or its neutrality;

Article 10. The mere passage of belligerent warships or prizes through a neutral's territorial sea does not affect the neutral's neutrality; . . .

Article 12. Unless the neutral's regulations provide otherwise, belligerent warships may remain in neutral ports, roadsteads, or territorial waters no more than 24 hours; . . .

Article 25. A neutral state must exercise such surveillance "as the means at its disposal allow" to prevent violation of its territorial waters; and

Article 26. The exercise of its rights under the Convention by a neutral cannot be considered an unfriendly act by a belligerent.

46. *Ibid.*

47. *Ibid.*, 278, footnote omitted.

48. *Ibid.*, 279, citing Rauch.

49. *Ibid.*, 302.

50. The author has substituted the cyberspace terminology developed in this essay for the traditional UNCLOS III maritime terms and eliminated those sections of Rear Admiral Robertson's analysis that do not apply to this analogy, such as maritime zones of archipelagic waters and exclusive economic zones.

51. A prudent commander will seek and obtain the assistance of qualified legal counsel at the earliest planning stages. Qualified counsel must be consulted to determine whether, if at all, the analogy proposed in this essay comports with customary international law under the specific circumstances.

Not with Impunity: Assessing U.S. Policy for Retaliating to a Chemical or Biological Attack

Harry W. Conley

Senator Jesse Helms: Suppose somebody used chemical weapons or poison gas on people in the United States . . . would they damn well regret it?

Secretary of Defense William Perry: Yes.

Helms: I want to know what the response will be if one of these rogue nations uses poison gas or chemical weaponry against either us or our allies. . . . What is the response of this country going to be?

Perry: Our response would be devastating.

Helms: Devastating—to them?

Perry: To them, yes. . . . And I believe they would know that it would be devastating to them.

Helms: Let the message go out.

*—Testimony of Secretary of Defense William Perry
before the Senate Foreign Relations Committee
March 28, 1996*

How should the United States determine its response to a chemical or biological attack against American personnel or interests? The current U.S. retaliation policy, known as *calculated ambiguity*, warns potential adversaries that they can expect an “overwhelming and

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devastating” response if they use chemical or biological weapons (CBW) against the United States or its allies.¹ Implied in this policy is a threat of nuclear retaliation, but the specifics of the U.S. response are left to the imagination. By not identifying a specific response to an attack, this intentionally vague policy is designed to maximize flexibility by giving the United States a virtually unlimited range of response options.² While ambiguity gives flexibility to policymakers, it also enhances deterrence by keeping adversaries guessing. But there is a downside to flexibility and ambiguity. Because it is easier to prepare to execute a specific strategy than it is to prepare for a broad range of possibilities, military preparedness suffers—at least at the strategic level—under a policy of ambiguity. It is not surprising that the policy of calculated ambiguity, which is intended to place doubt in the minds of potential adversaries, has engendered uncertainty among those who would implement the policy. This uncertainty could manifest itself in strategic unpreparedness. I argue that the United States needs a clearer reprisal policy, one that strikes a better balance between flexibility and preparedness.

In general, national policy should facilitate strategy development. If a policy fails to provide enough substance for making strategy, the policy should be revised. Adjectives such as *overwhelming* and *devastating* are the only guidelines that the calculated ambiguity policy provides to strategy makers. Because current policy aims to achieve unlimited flexibility through ambiguity, there is simply not enough substance in the policy to support strategy development. Absent a strategy, military means may not be able to support policy ends. In making the case that the current reprisal policy hampers strategic preparedness, I examine existing policy and assess its strengths and weaknesses, then suggest means for clarifying the policy with a view toward better balancing flexibility and preparedness. Having proposed a policy that better supports strategy development, I present an analytic framework consisting of four critical variables that must be considered in formulating strategies for responding to a chemical or biological attack.

Current Reprisal Policy

President William Clinton’s National Security Strategy (NSS) calls weapons of mass destruction (WMD) “the greatest potential threat to global stability and security.”³ The NSS further states, “Proliferation of advanced weapons and technologies threatens to provide rogue states, terrorists, and international crime organizations with the means to inflict

terrible damage on the United States, our allies, and U.S. citizens and troops abroad.”⁴ At his confirmation hearing in 1997, Secretary of Defense William Cohen asserted, “I believe the proliferation of weapons of mass destruction presents the greatest threat that the world has ever known.”⁵ Barry Schneider, director of the U.S. Air Force Counterproliferation Center, claims, “There are perhaps one hundred states that have the technical capability to manufacture and deploy biological weapons.”⁶ That Americans will be subject to a chemical or biological weapon attack is not a matter of *if*, but *when*.

In 1969, President Richard Nixon stopped all biological weapons programs in America. More recently, the United States has begun to destroy its chemical weapons stockpile in accordance with the Chemical Weapons Convention.⁷ The United States no longer has the option of responding in kind to a chemical or biological attack. This situation has thrown U.S. retaliation policy into a conundrum: How best to respond to a WMD attack when the only WMD in the arsenal is nuclear? Albert Mauroni, author of *America's Struggle with Chemical-Biological Warfare*, writes, “Our national policy of responding to enemy use of CB [chemical and biological] weapons has shifted over the years from one extreme to the other; from retaliation using similar CB weapons to massive conventional retaliation to (most recently) nuclear retaliation.”⁸

Prior to the Gulf War, President George Bush and other officials let it be known that nuclear weapons might be used against Iraq, if Iraq were to use its weapons of mass destruction against coalition forces.⁹ However, in private, Bush reportedly ruled out the use of nuclear weapons.¹⁰ During *Desert Shield*, Secretary of State James Baker coined the term *calculated ambiguity* to describe this policy of secretly planning not to use nuclear weapons yet publicly threatening just the opposite.¹¹ Defense Secretary William Perry's testimony at hearings in 1996 on the Chemical Weapons Convention made it clear that ambiguity was still the policy for the Clinton administration. When asked what the U.S. response to a chemical attack would be, Perry replied, “We would not specify in advance what our response to a chemical attack is, except to say that it would be devastating.”¹² When asked if the response could include nuclear weapons, Perry responded, “The whole range [of weapons] would be considered.”¹³ Perry's successor, William Cohen, reiterated the policy in 1998: “We think the ambiguity involved in the issue of nuclear weapons contributes to our own security, keeping any potential adversary who might use either chemical or biological [weapons] unsure of what

our response would be.”¹⁴ It appears that the current Bush administration will advocate the same policy of ambiguity as did its predecessors. For example, National Security Advisor Condoleezza Rice threatens “national obliteration” to those who would use such weapons.¹⁵ Robert Joseph, the Bush administration’s senior advisor on counterproliferation issues, argues nuclear weapons should be an “essential component of the U.S. deterrent posture against [proliferation of mass destruction weapons].”¹⁶

Nuclear weapons have always been a lightning rod for controversy, so it should come as no surprise that an intense debate has been raging over the possible use of nuclear weapons in a U.S. reprisal against a CBW attack. At issue is the decades-long clash between so-called deterrence hawks, who advocate a prime role for nuclear weapons in the calculus of deterrence, and the counterproliferation doves, who maintain that there are safer ways to deter the use of chemical and biological attacks and that the United States should reject first use of nuclear weapons. Deterrence theory, long relegated to the proverbial back burner, is witnessing a resurgence, driven in no small part by this reprisal policy, which, when taken at face value, allows the United States to use nuclear weapons in response to something other than a nuclear attack. According to deterrence hawks, the potential threat to American interests from these other attacks is so large that only by threatening absolute devastation with nuclear weapons can the United States deter such attacks.¹⁷ The deterrence doves, on the other hand, place primacy on countering nuclear proliferation. The dove position is that the goal of nuclear nonproliferation will be irreparably damaged if America continues to maintain a policy that allows nuclear first use. The United States should renounce nuclear retaliation, they argue, and instead threaten a massive conventional response.¹⁸

Evaluating Current Policy

Is the current policy of calculated ambiguity viable? In assessing the policy, one must answer two questions: What are the general criteria for evaluating a reprisal policy, and to what degree does the current U.S. policy satisfy these criteria?

To answer the first question, I submit that retaliatory policy should be measured against two key criteria. First, does the policy meet its stated objective? Second, does the policy support the development of strategy? The objective of stated U.S. reprisal policy is clear: to deter the use of chemical and biological weapons against U.S. interests. Colin Gray defines *deterrence* as “a condition wherein a deteree—the object of deterrent menaces—chooses not to behave in ways in which he would otherwise have

chosen to behave, because he believes that the consequences would be intolerable.”¹⁹ Thus, there is no purpose in having a publicly stated reprisal policy if the United States does not believe that this policy will cause the deteree to avoid undesirable behavior. Moreover, it is important that a reprisal policy deter not only state actors but also nonstate actors. To be effective against state and nonstate actors, the “deterrent menaces” of the policy must be applicable against each. Finally, the target audiences of the policy must perceive the threat as *credible*.

There are two essential objectives of deterrence in a reprisal policy. Perhaps the most important objective is deterrence of CBW first use. Deterring first use sometimes fails, which leads to the second objective: preventing recurrences or escalation of CBW attacks. Preventing recurrences can be accomplished with threats or direct military action. A primary mechanism for deterring or preventing escalation is punishment, the threat and execution of which is intended to serve as a deterrent against further CBW attacks on the part of the adversary or other parties. For example, the swift trial and conviction of Timothy McVeigh could deter other terrorists who may be considering actions against the United States. Thus, in evaluating a reprisal policy, it is important to determine policy applicability to state and nonstate actors, its credibility, and the degree to which the stated policy addresses the two objectives of deterrence.

The second criterion in evaluating reprisal policy is the degree to which the policy supports strategy development. If a policy requires military action that cannot be well executed, the policy is flawed. Military forces may not be able to accomplish a proposed action because the forces do not have the necessary means, such as equipment. Conversely, if there is no viable strategy, military forces may not be able to carry out an action even if they have the proper equipment. In this case, the forces are strategically unprepared.²⁰ Policy must enable the development of strategy. Gray defines *strategy* as “the bridge that relates military power to political purpose.”²¹ *Military strategy*, according to Drew and Snow, is “the art and science of coordinating the development, deployment, and employment of military forces to achieve national security objectives.”²² Drawing from these definitions, if a policy (political purpose) is not clearly defined, I conclude that the development of strategy is problematic. Thus, a viable policy must embody clear national security objectives for the development of strategy.

The 1998 cruise missile strikes against terrorist facilities in Afghanistan and Sudan provide an illustration of both the thinking of the

Clinton administration leadership relative to reprisal policy and how this U.S. action was intended as punishment and prevention of further attacks. In his address to the Nation announcing the strikes, Clinton stated that a key reason for the U.S. response was “the imminent threat [the facilities] presented to our national security.”²³ These strikes served several purposes: they sent a strong signal of U.S. willingness to retaliate, they served as a form of punishment against terrorist behavior, and they decreased the likelihood that those facilities could be used again.

Weaknesses

Does the current policy of calculated ambiguity meet the stated objective of deterrence, and does it support the development of strategy? When measured against these two key criteria, existing policy has some significant shortcomings. One of the weaknesses of the policy is its credibility. Would an American President really use nuclear weapons in retaliation for a CBW attack? It would seem that the threshold of damage would have to be high for a President to consider using nuclear weapons, yet the stated policy does not address thresholds of damage. The main reason for the policy’s lack of credibility is that it fails to address proportionality. Adjectives such as *overwhelming* and *devastating* in policy bring to mind a massive response. Yet one of the widely held tenets of the international law of armed conflict—the rule of proportionality—holds that armed action “must be measured and not excessive in the sense of being out of proportion to the original wrong nor disproportionate in achieving its redress.”²⁴

Suppose an adversary killed several dozen American soldiers with a biological attack. Taken at face value, the current policy would seem to stipulate a response out of proportion to the original attack. A disproportionate response would surely trigger an international furor over U.S. actions. Moreover, it is not clear that threatening massive retaliation is the best deterrent against CBW use. Avigdor Haselkorn writes in *The Continuing Storm*, “Frequently, the bigger and more indiscriminate the threat, the less believable it is in the eyes of the target audience.”²⁵ Unfortunately, current policy wording may commit the United States to a massive response when the situation does not actually call for this.²⁶ In their statements, policymakers seem to imply that all potential CBW events are equal, with each demanding the same massive response. In reality, of course, future CBW events will vary widely, and U.S. policy should be worded carefully to allow for a tailored response, appropriate to the situation.

Another shortcoming of the current policy is its implicit focus on state actors, when in fact the threat of CBW from nonstate entities may be

greater than the threat from states. It does not seem likely that Rice's phrase "national obliteration" would have much deterrent effect on terrorist groups. The current policy begs two questions: Does the threat of a nuclear response deter terrorists? Would the United States ever launch a nuclear weapon into a sovereign state in response to a terrorist attack? The answer to both questions is "very unlikely." While terrorists are a highly likely source of CBW attacks, the current policy all but ignores these nonstate threats.

Strengths

The calculated ambiguity policy does have one strong feature. The more uncertain an adversary is about U.S. response, the less likely it is to use chemical or biological weapons. As Paul Bernstein and Lewis Dunn write, "deliberate ambiguity creates significant uncertainty for an adversary regarding the nature of our response to CBW use."²⁷ Indeed, ambiguity deters, as long as the adversary perceives U.S. willingness and ability to respond forcefully. Since the ambiguity in the current policy incorporates the possibility of nuclear retaliation, one must ask: are today's chemical- and biological-capable adversaries deterred by the U.S. threat to retaliate with nuclear weapons? Even Scott Sagan, an articulate advocate of abandoning the role of nuclear weapons in U.S. reprisal policy, concedes that nuclear weapons contribute "the extra margin of deterrence" against CBW use.²⁸ The inherent deterrent value of nuclear weapons is a strength of the current policy, but policymakers must clarify the conditions under which nuclear weapons might be considered.

Failure to Support Strategy Development

I have argued that the current U.S. reprisal policy has weaknesses that should be redressed, the most important of which is a lack of clarity. The policy is so ambiguous that it hampers the development of strategies that are necessary to implement the policy. There is ample evidence that the policy fails to support strategy development.

The first piece of evidence demonstrating that the current policy fails to support strategy development is the waffling of the Bush administration during the Gulf War. During that conflict, the United States faced a foe that was known to have used chemical weapons in the recent past and was suspected of possessing biological weapons.²⁹ Bush and his top advisors struggled to answer the question, "What should the United States do if Iraq uses these weapons?"³⁰ In *Crusade*, Rick Atkinson describes the

alternatives that were considered. These included a recommendation by General Norman Schwarzkopf to threaten nuclear weapons; air strikes against the presidential palace; a proposal to strike dams on the Tigris and Euphrates above Baghdad; a Brent Scowcroft suggestion to attack the oil fields; and a hint by Richard Cheney that Israel would retaliate with nuclear weapons if attacked with CBW.³¹ There was no consensus on how to respond.³² In the end, writes Haselkorn, "The ambiguity of the U.S. position on the proper response to Iraq's use of weapons of mass destruction was as much a result of the conflicting stands within the Bush administration as it was part of a calculated policy."³³ The widely varying views taken by these influential individuals should be of great concern. Had retaliation been called for, uncertainty and lack of consensus among U.S. political and military leaders would have created difficulties in planning and executing a response.

The second piece of evidence that suggests the current policy is not pragmatic is the persistent stumbling over the issue by the Clinton administration. In *An Elusive Consensus*, Janne Nolan concludes that confusion over U.S. reprisal policy persisted throughout the Clinton administration.³⁴ The most visible issue the administration grappled with was the African Nuclear Weapons Free Zone (ANWFZ) Treaty, in which the United States promised not to use nuclear weapons in Africa. To assuage Pentagon concerns, the administration issued a declaration reserving the U.S. right to use nuclear weapons against states that employ weapons of mass destruction against U.S. interests. In another incident, a senior Pentagon official publicly argued for development of a new, earth-penetrating nuclear weapon that could be targeted against a Libyan chemical weapons plant. Pentagon spokesman Kenneth Bacon later had to issue a clarification to "correct the impression . . . that the U.S. had accepted a policy of nuclear preemption against Libya," which would be in violation of the ANWFZ Treaty.³⁵ This waffling and stumbling by the last two administrations raise the question of whether it is possible to develop sound military strategy when policy is unclear. The answer appears to be no.

The third piece of evidence that the flawed reprisal policy has hampered strategy development is the disconnection between statements of grand strategy (including the National Security Strategy) and the National Military Strategy (NMS) of the Chairman of the Joint Chiefs of Staff. Recent grand strategy documents have trumpeted the national security threat posed by chemical and biological weapons, whereas NMS barely gives a nod to the CBW threat. A perusal of these two documents highlights

the disparity in focus between the grand strategy and the military strategy. President Clinton's 1999 National Security Strategy makes numerous references to a counter-WMD strategy, including the previously cited statement that WMD presents "the greatest potential threat to global stability and security,"³⁶ as well as the following: "Because terrorist organizations may not be deterred by traditional means, we must ensure a robust capability to accurately attribute the source of attacks against the United States or its citizens, and to respond effectively and decisively to protect our national interests."³⁷ The NSS also specifically addresses the issue of reprisal: "The United States will act to deter or prevent such [WMD] attacks and, if attacks occur despite those efforts, will be prepared to defend against them, limit the damage they cause, and respond effectively against the perpetrators."³⁸ The predominant focus of NMS, on the other hand, is the Nation's two-major theater war (MTW) strategy, with relatively minor emphasis on weapons of mass destruction. The National Military Strategy concedes that the use of WMD by an adversary is "increasingly likely" and states that the Armed Forces must be able to detect, destroy, deter, and protect forces from the effects of weapons of mass destruction, and restore affected areas.³⁹ But NMS barely addresses the challenges of WMD use by nonstate actors, and it does not discuss retaliation.

The evidence is clear: because of an ambiguous policy of CBW reprisal, there is no strategy to link military capabilities with political objectives. Given the increasing likelihood that a CBW will be used against the United States, it is time to begin redressing the broken link. The timeframe immediately following the first large-scale use of chemical or biological weapons against Americans is certain to be filled with extreme emotions. During a chemical or biological crisis, leaders will be inclined to make emotional judgments. As Terry Hawkins, Director of Non-proliferation and International Security at Los Alamos National Laboratories, warned, "If you don't have the preplanning, it will be almost impossible to deal with in the panic of the moment."⁴⁰ Two things need to change to rectify this situation. First, the policy must be clarified. Second, the strategy bridge linking ends and means must be developed.

Clarifying the Policy: Balancing Flexibility and Preparedness

Two steps must be taken to clarify U.S. reprisal policy: make regime survival and accountability the hallmark of the policy, and determine under what conditions nuclear weapons would be used.

Rather than making vague threats such as “national obliteration,” the primary feature of U.S. reprisal policy should be a guarantee to bring to justice those responsible for a chemical or biological attack. Responsible persons would include those leaders who directed the action, as well as their lieutenants who executed it. Making regime survival and accountability the hallmark of the reprisal policy has many benefits. First, it applies equally well to state and nonstate actors, a distinct advantage over the current policy. Second, a promised retribution against the responsible parties does not have to be implemented immediately. Recent U.S. experiences with terrorism, including the joint Yemeni-Federal Bureau of Investigation inquiry into the *U.S.S. Cole* bombing (which netted six suspects and prompted others to flee to Afghanistan), the embassy bombings in Africa, and the downing of Pan Am Flight 103, demonstrate the effectiveness of American and international justice systems when patience and diligence are applied to challenging scenarios. Third, focusing the reprisal actions on those responsible for CBW attack averts the potential criticism of a disproportionate U.S. response, which would be likely under the current policy. There is certainly solid precedent for threatening regime destruction. At his meeting with Iraqi Foreign Minister Tariq Aziz 2 weeks before *Desert Storm*, James Baker told Aziz, “If there is any use of weapons [of mass destruction], our objective won’t just be the liberation of Kuwait, but the elimination of the current Iraqi regime, and anyone responsible for using those weapons would be held accountable.”⁴¹ Finally, direct threats against the decisionmakers responsible for the attacks—instead of promising “national obliteration”—would enhance policy credibility as a deterrent.⁴²

The second major change to current U.S. reprisal policy should be to clarify when nuclear weapons would be used. In existing policy, when to use nuclear weapons is left as an open issue. Some argue this ambiguity enhances deterrence. The mushroom cloud is indeed one of the enduring images of the 20th century, and only the most ardent of the nonproliferators would argue that the threat of nuclear weapons has no deterrent effect. Nuclear weapons may simply be too good a deterrent to take off the table. Yet, because current policy provides no guidance on the conditions under which nuclear weapons would be considered, planning and strategy of both conventional and nuclear responses have been severely hampered. When and if to use nuclear weapons in a reprisal is a controversial issue. Bernstein and Dunn capture the issue well:

There is no way to resolve fully these competing considerations related to what punishment to threaten. It would be dangerous to rule out the possibility of a nuclear response to CBW use, particularly in the face of egregious and highly damaging attacks. But it would be equally imprudent to rely exclusively on nuclear threats for deterrence of CBW use.⁴³

Nuclear weapons should be considered *only* in the most horrifying and damaging attacks. Policy should reflect the reality that nuclear weapons will be used only in the most extreme circumstances. This will enable planners and strategists to get on with the business of planning and developing strategies for conventional responses, which will be the most likely kind of response directed by the President.

Robert Joseph asserts that “for deterrence to work, the adversary must be convinced of our will and capability to respond decisively. On this score, ambiguity and uncertainty play very much against us.”⁴⁴ My suggestions—to emphasize regime survival/accountability and clarify the role of nuclear weapons—would result in a less ambiguous policy. Given the current situation, in which U.S. planning and strategy have been paralyzed due to an unclear policy, it is time to make these clarifying changes. The benefit—a clear policy that supports strategy development—outweighs the drawbacks.

Analytic Framework: Four Critical Variables

How should the United States determine its response to a CBW attack? Guided by political objectives inherent in a clearly articulated reprisal policy, the crisis response analysis can proceed by examining four key variables: context (wartime or peacetime), adversary class, number and type of casualties, and identification of perpetrators. These four variables form the genesis of an analytic framework that can enable policy-makers and planners to begin developing reprisal strategies.

Context

The U.S. response to a “bolt-out-of-the-blue” CBW attack is likely to be far different than if the Armed Forces were attacked during a conflict or period of hostilities. During hostilities, the mindset of American leaders and the public is at a higher state of alert. If casualties in a conflict have already occurred from conventional means prior to a CBW attack, the leadership and public may be somewhat hardened and may not react as strongly as they would in a peacetime scenario. Moreover, during hostilities, U.S. forces are likely to use CBW defense equipment, such as masks and detection equipment, which could serve to minimize

the adverse impacts of a CBW attack. In fact, depending on the nature and scope of the attack, U.S. forces could “take it in stride,” with little if any change in operational plans. In this case, a specific reprisal action may not be necessary.

The international legal standards for retaliation during peacetime are much higher. Richard Erickson makes the point that reprisal has a “very low level of acceptability” in international law. He claims, “The general view is that articles 2(3) and 2(4) of the UN Charter have outlawed peacetime reprisals. . . . When states have relied upon it, the UN Security Council has condemned their action soundly.”⁴⁵ Thus, reprisals in peacetime will have to pass a stricter set of criteria.

Adversary Class

The second variable to consider in reprisal calculations is adversary class. Is the perpetrator a state or nonstate actor? While international law gives clear guidance as to how states may legally respond to attacks from other states, the law is murky when dealing with nonstate actors; hence, any proposed U.S. retaliatory action must take this difference into account. For example, despite the evidence and strong justification for its actions against the Afghanistan and Sudan terrorist facilities, the United States was subject to much condemnation from the international community, not to mention internal criticism. U.S. reprisal attacks against nonstate actors are likely to require much more evidence and justification compared to similar actions against state actors. Many kinds of military actions can be taken against a state actor, whereas the kinds of actions that can be taken against nonstate actors may be limited. The nature of the reprisal, therefore, will be heavily influenced by the type of actor involved.

Number and Type of Casualties

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the U.S. reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). While these events caused anger and a desire for retaliation among the American public, there was no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude

higher than these events. Using the rule of proportionality as a guide, it is debatable whether the United States would use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the casualty count was around 300,000? Such an unimaginable result from a single CBW incident is not beyond the realm of possibility: “According to the U.S. Congress Office of Technology Assessment, 100 kg of anthrax spores delivered by an efficient aerosol generator on a large urban target would be between two and six times as lethal as a one megaton thermo-nuclear bomb.”⁴⁶ Would the deaths of 300,000 Americans be enough to trigger a nuclear response? In this case, proportionality does not rule out the use of nuclear weapons.

Besides just the total number of casualties, the type of casualties—predominantly military versus civilian—will also impact the nature and scope of the U.S. reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as if the attack were against civilians.

World War II provides perhaps the best examples for the kind of event or circumstances that would have to take place to trigger a nuclear response. A CBW event producing a shock and death toll roughly equivalent to the attack on Pearl Harbor might be sufficient to prompt a nuclear retaliation. President Harry Truman’s decision to drop the bombs on Hiroshima and Nagasaki—based on a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland⁴⁷—is an example of the kind of thought process that would have to be conducted prior to a nuclear response to a CBW event. Victor Utgoff suggests:

If nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, nuclear retaliation would be more than just a possibility, whatever promises had been made.⁴⁸

Even the “overwhelming and devastating” conventional response threatened by Secretary Perry⁴⁹ would seem unlikely unless there were large number of Americans or allies killed. In any event, it is imperative that policymakers and planners consider that the number and type of casualties, as well as the attendant public opinion resulting from those casualties, will play a significant role in determining the nature of U.S. reprisal actions.

Identification of the Perpetrator

Before taking action against the parties responsible for a CBW attack, the United States is compelled to demonstrate that it has strong enough evidence linking the perpetrators to the act itself. How strong does the evidence have to be? Erickson writes, “The threshold for what constitutes sufficient evidence varies. Factors that must be considered are the threat, the response contemplated, and the audience to be persuaded.”⁵⁰ Stronger evidence may result in the ability of the United States to conduct a stronger response. As a final consideration on the issue of evidence, policymakers must consider the possibility that there could be a large-scale attack with heavy U.S. or allied casualties, yet with insufficient evidence to allow for a reprisal.

In the final analysis, the U.S. response must be determined by a thorough cost/benefit calculation. Decisionmakers must ask what the potential results of a reprisal, both internationally and domestically, would be. Are there any unanticipated consequences? Are there any vulnerabilities in the strategy? These are the kinds of questions that must be answered prior to determining a reprisal action. Current policy, with its reliance on an “overwhelming response,” is not useful in many potential situations. It has been, in the words of Bernstein and Dunn, “a false justification for inaction—for avoiding tough resource allocation decisions needed to improve our ability to defend against hostile CBW acts.”⁵¹

Implications and Conclusion

The suggested policy clarifications and the strategic framework proposed above could serve to bound and focus policy debates and, if implemented, would enable strategists to begin to link military capabilities better with political objectives. Adapting these policy changes has implications for at least two elements of U.S. military power: intelligence and special operations. If regime survival becomes the hallmark of U.S. reprisal policy, then the U.S. intelligence community must be challenged to improve intelligence collection against organizations suspected to be involved with chemical and biological weapons. Successfully collecting this needed intelligence requires new ways of thinking about intelligence, improved cooperation among domestic and allied intelligence agencies, and increased budgets to reflect the national priority and concern for weapons of mass destruction.

Being ready to retaliate following a CBW attack against the United States also implies an increased emphasis on special operations

forces (SOF). In such situations, “SOF, because of their unique skills, regional expertise, cultural sensitivity and operational experience, may be the force of choice for meeting the strategic requirements of the National Command Authorities.”⁵² Finally, the United States must continue its investment in chemical and biological defense. If CBW defense equipment can mitigate the effects of a CBW attack, the adversary may see no advantage in using weapons of mass destruction.

Ultimately, the aim of CBW retaliation policy is deterrence. Although an element of ambiguity certainly can serve to enhance deterrence by keeping adversaries guessing about the response to an attack, it seems more likely that the United States is stuck with the current approach because there has not been much of the critical thinking needed to devise a more robust policy. In other words, the current policy of calculated ambiguity—with its over-reliance on the nuclear “big stick”—is a cop-out. America is paying full price for this half-policy, the result of which is that the Armed Forces may be strategically unprepared to respond when the time comes.

Former National Security Advisor Sandy Berger, in the days following the cruise missile strikes against Sudan and Afghanistan, said that U.S. strikes “have made it clear that those who attack or target the United States cannot do so with impunity.”⁵³ To back up this statement with a credible deterrent threat requires the United States to have a robust, well-considered retaliation policy. Without a viable reprisal policy, America is fated to fall victim to the panic of the moment.

Notes

1. Prepared statement of William J. Perry, Hearing before the Committee on Foreign Relations, U.S. Senate, 104th Congress, 2^d session, March 28, 1996, quoted in Scott D. Sagan, “The Commitment Trap,” *International Security* 24, no. 4 (Spring 2000), 85.

2. Because the *calculated ambiguity* policy seeks to maximize the options available to policy-makers, it could also be called *absolute flexibility*.

3. William J. Clinton, *A National Security Strategy for a New Century* (Washington, DC: The White House, December 1999), 6.

4. *Ibid.*

5. Testimony of William S. Cohen, quoted in *Proliferation: Threat and Response, 1997*, Office of the Secretary of Defense, January 15, 2001, <<http://www.defenselink.mil/pubs/prolif97/index.html>>.

6. Barry R. Schneider, *Future War and Counterproliferation: U.S. Military Responses to NBC Proliferation Threats* (Westport, CT: Praeger, 1999), 199.

7. Albert J. Mauroni, *Chemical-Biological Defense* (Westport, CT: Praeger, 1999), 171. The Chemical Weapons Convention, effective 1997, “outlines a verifiable ban on all production, storage, and use of chemical weapons.”

8. Albert J. Mauroni, *America's Struggle with Chemical-Biological Warfare* (Westport, CT: Praeger, 2000), 4.

9. Stephen I. Schwartz, "Miscalculated Ambiguity: U.S. Policy on the Use and Threat of Use of Nuclear Weapons," January 15, 2001, <<http://www.nyu.edu/globalbeat/nuclear/schwartz0298.html>>.

10. Ibid.

11. Ibid.

12. Senate Foreign Relations Committee, 104th Congress, 2^d session, testimony of Secretary of Defense William J. Perry, March 28, 1996.

13. Ibid.

14. William S. Cohen, quoted in Sagan, 85.

15. Condoleezza Rice, "Promoting the National Interest," *Foreign Affairs* 79, no. 1 (January/February 2000), 61.

16. Robert G. Joseph and Barry M. Blechman, "Deterring Chemical and Biological Weapons," *Transforming Nuclear Deterrence*, Institute for National Strategic Studies, <<http://www.ndu.edu/ndu/inss/books/tnd/tnd2.html>>.

17. Three recent publications that provide excellent discussions of the two sides of this debate are Victor A. Utgoff, "Nuclear Weapons and the Deterrence of Biological and Chemical Warfare" (The Henry L. Stimson Center, Occasional Paper No. 36, October 1997), Sagan, "The Commitment Trap," and "Responding to the Biological Weapons Challenge: Developing an Integrated Strategy" (Alexandria, VA: Chemical and Biological Arms Control Institute, 2000).

18. Ibid.

19. Colin S. Gray, "Deterrence in the 21st Century," *Comparative Strategy* 19, no. 3 (July/September 2000), 256.

20. The 1980 failed Iranian hostage rescue attempt is a good example of this second case. U.S. military forces had clear political objectives (rescue the hostages), and they had the equipment; they lacked, however, a viable strategy, joint doctrine, training, and interoperability. In other words, the United States was not "strategically prepared" for the *Desert One* operation.

21. Colin S. Gray, *Modern Strategy* (New York: Oxford University Press, 1999), 17.

22. Dennis M. Drew and Donald M. Snow, *Making Strategy* (Maxwell Air Force Base, AL: Air University Press, 1988), 18.

23. William J. Clinton, "The Fight Against Terrorism," President's address to the Nation, August 20, 1998, *Vital Speeches of the Day* 64, no. 23 (September 15, 1998), 706-707.

24. Richard J. Erickson, *Legitimate Use of Military Force Against State-Sponsored International Terrorism* (Maxwell Air Force Base, AL: Air University Press, 1989), 180.

25. Avigdor Haselkorn, *The Continuing Storm: Iraq, Poisonous Weapons and Deterrence* (New Haven, CT: Yale University Press, 1999), 49.

26. Sagan advocates removing nuclear weapons from the U.S. reprisal calculus because American leadership may feel committed to responding to a CBW attack with nuclear weapons based on strong policy declarations and promises to allies. Sagan calls this conundrum the *commitment trap*.

27. Paul I. Bernstein and Lewis A. Dunn, "Adapting Deterrence to the WMD Threat," in *Countering the Proliferation and Use of Weapons of Mass Destruction*, Peter L. Hays, Vincent J. Jodoin, and Alan R. Van Tassel, eds. (New York: McGraw-Hill, 1998), 159.

28. Sagan, 114.

29. Mauroni, *Chemical-Biological Defense*, 26-27.

30. Ibid., 28.

31. Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston: Houghton Mifflin, 1993), 86-87.

32. McGeorge Bundy reported that some of these differing opinions became public: "The President's associates . . . sometimes disagreed with each other. The most notable of these disagreements was that between some Pentagon officials and John Sununu, the White House Chief of Staff, who at one point found it prudent to give assurance that there was no likelihood of resort to tactical nuclear

weapons. Nameless Pentagon sources then rebuked him for the military error of telling the enemy what we were not going to do.” Bundy, “Nuclear Weapons and the Gulf,” *Foreign Affairs* 70, no. 4 (Fall 1991), 86.

33. Haselkorn, 60.

34. Janne E. Nolan, *An Elusive Consensus* (Washington, DC: The Brookings Institution Press, 1999), 81.

35. *Ibid.*

36. Clinton, *A National Security Strategy for a New Century*, 6.

37. *Ibid.*, 15.

38. *Ibid.*, 20.

39. John M. Shalikashvili, *Shape, Respond, Prepare Now: A National Military Strategy for a New Era* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 1997), <<http://www.dtic.mil/jcs/core/nms.html>>.

40. Terry L. Hawkins, “The Role and Limits of Science and Technology,” Presentation to Air War College NBC Seminar, Los Alamos National Laboratory, Los Alamos, NM, September 12, 2000.

41. James A. Baker III, *The Politics of Diplomacy* (New York: G.P. Putnam’s Sons, 1995), 359.

42. Making regime accountability the linchpin of U.S. reprisal policy would imply some modest changes to today’s military force structure. According to Bernstein and Dunn, there is a significant challenge for the United States in “operationalizing and projecting a credible threat [of regime elimination]” (159). To meet this challenge—of making credible the threat of regime elimination—the United States should place more emphasis on human intelligence and special operations.

43. *Ibid.*

44. Joseph and Blechman.

45. Erickson, 180.

46. Congressional report cited in Randall J. Larsen and Robert P. Kadlec, *Biological Warfare: A Post Cold War Threat to America’s Strategic Mobility Forces* (Pittsburgh, PA: Matthew B. Ridgway Center for International Security Studies, University of Pittsburgh, 1995), 7.

47. Richard B. Frank, *Downfall* (New York: Random House, 1999), 338. Frank discusses the current debate over the number of casualties that Truman expected and the methodology for determining those estimates. Whether he believed 25,000 or 250,000 U.S. servicemen would be killed in an invasion of the Japanese homeland, Truman made the decision. His calculus in World War II is not dissimilar to what might face a future U.S. President if extremely large numbers of Americans are killed by a chemical or biological attack.

48. Victor A. Utgoff, *Nuclear Weapons and the Deterrence of Biological and Chemical Warfare*, Occasional Paper No. 36 (Washington, DC: The Stimson Center, 1997), 3, <<http://www.stimson.org/pubs/zeronuke/utgoff.pdf>>.

49. Perry, quoted in Sagan, 85.

50. Erickson, 105.

51. Bernstein and Dunn, 152.

52. *United States Special Operations Forces Posture Statement* (Washington, DC: Government Printing Office, 1998), 38.

53. Dian MacDonald, “Berger: Those Who Attack U.S. ‘Cannot Do So with Impunity,’” USIS Washington File, August 23, 1998, <http://www.fas.org/man/dod-101/ops/docs/98082303_tpo.html>.

Huntington Revisited: Is Conservative Realism Still Essential for the Military Ethic?

Kathleen A. Mahoney-Norris

The military ethic is . . . pessimistic, collectivist, historically inclined, power-oriented, nationalistic, militaristic, pacifist, and instrumentalist in its view of the military profession. It is, in brief, realistic and conservative.¹

One of the most widely accepted truisms about the military concerns its supposed preference for a conservative perspective. More specifically, the military professional is assumed to espouse a conservative, realist viewpoint on national security matters. Samuel Huntington has provided perhaps the classical exposition of this outlook in his *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Furthermore, Huntington has developed what appears to be a powerful argument as to why conservative realism should be considered a fundamental component of the professional ethic of the military officer.²

This essay demonstrates that Huntington is mistaken in assuming that conservative realism is the only rational mindset for the military professional, especially in the 21st century. Diverse factors—from globalization to failing states to technological advances, as epitomized by the revolution in military affairs—increasingly suggest that this type of mindset is often inappropriate. In the worst case, a conservative realist approach may

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endanger rather than protect the security of the state. For example, realism's preoccupation with the state blinds it to the importance of nonstate actors and transnational or asymmetric threats, which may actually pose the greater danger to national security.

At a minimum, realism's focus on threats may not inculcate the mindset necessary to seize opportunities for engagement and cooperation that could enhance the security of the state. Mounting evidence of the validity of the democratic peace thesis (the notion that democracies do not go to war with one another) could encourage the United States to engage other states to promote democracy. These limitations of realism are magnified by its conservative bent, which suggests an inability to view trends and events in a novel and positive light. Yet creativity and the flexibility to move beyond the status quo are qualities that are critical to enhance U.S. security in the current complex and fluid international system.

These concerns are particularly germane as the Bush administration attempts to reassess national security and military strategies, along with accompanying roles, missions, and force structure for the Armed Forces. The Nation is still floundering to define itself in this nebulous post-Cold War period. The military view of the threats, challenges, and opportunities of the international system will certainly undergird the estimates that it makes and the advice that it offers about its role in national security. Does the professional military have the perspective required to provide the best advice possible to the civilian leadership in these circumstances? Conservative realism probably does not provide an adequate guide.

My analysis expands upon Huntington's view of the concept of conservative realism and its implications for the military and national security. I then consider conservatism and realism separately to better elucidate certain ideas. Next, I compare the relevance of this perspective for the Cold War period by contrasting that time to the current post-Cold War era. Have the threats changed? Has the role of the military evolved in ensuring national security? I contend that the answer to both of those questions is yes and that conservative realism does not provide an adequate basis for the professional military to reorient its thinking. Furthermore, military writings indicate an increasing awareness of the need for a changed perspective. I conclude with speculation about an alternative perspective of globalization that might provide for better defense of the Nation, both now and in the foreseeable future.³

Huntington and Conservative Realism

Huntington's concept of the military rests on the central premise that the modern military officer is a *professional*. Thus, there is a "military mind" and a "professional military ethic" based on a "constant standard by which it is possible to judge the professionalism of any officer corps anywhere anytime."⁴ For the military, that standard is a set of values, attitudes, and perspectives that best enables military members to carry out their fundamental function of enhancing the security of the state. Huntington believes that this professional military ethic is unchanging, assuming that the inherent nature of the military function remains static. He does not question this assumption to any extent because he accepts that conflicts among humanity and between the organized entities in which humanity lives (states) are a universal pattern for several reasons. Most prominent among these reasons is the belief that human nature is selfish and greedy, even evil. The insecurities and fears that this belief generates are just as evident in our time to Huntington and other realists as they were to Hobbes and Machiavelli.⁵ That is because classical realism assumes that this pattern is unchanging, cyclical, and ultimately does not allow for progress.

Separating the strands of conservatism and realism highlights several weaknesses in Huntington's argument. Realism could continue serving a useful role in shaping the military perspective if it were separated from the adjective *conservative*. Deleting this modifier removes the moral, or value-based, aspects of realism—essentially, the idea that humanity is evil by nature.⁶ Updating the classical realist perspective⁷ to what is often termed *neorealism* or *structural realism*⁸ might be useful. This amended perspective does not attribute conflict in the international system to the weakness of human nature or even to individual actions. Rather, conflict is presumed to occur because of the anarchy that characterizes the international system, which means that each state is sovereign in an insecure world. Thus, states must always look not only to maintain but also enhance their security, particularly by military means. Accepting this version of realism would allow for a more nuanced view of the current international system. It would enable military professionals to continue envisioning the international system as prone to conflict but also to appreciate the growing importance of economic power, institutions, and other nonstate actors. This perspective also allows postulation that states may cooperate and gain in certain kinds of circumstances (as opposed to a classic zero-sum view of interactions). A modified view of realism on this order clearly would encourage at least a modicum of adaptive thinking.

Another limitation of the specifically conservative emphasis in Huntington's argument relates to his analysis of the static nature of the military ethic. According to Huntington, the content of the professional ethic remains unchanged because of the inherent nature of the military function—ensuring security in the face of threats.⁹ He further argues that the prevailing military outlook on foreign affairs has scarcely changed in modern times because “the decisive influence shaping the military outlook was not the actual state of world politics, but rather the level of professionalism achieved by the military.”¹⁰ For Huntington, “the constant nature of the American military perspective reflected the constant character of American military professionalism,”¹¹ regardless of whether the date was 1870 or 1930. He even claims that by the 1930s, the international system had come to reflect the view that the American military had always had about the world.

The fact that the events of the interwar period reflect Huntington's portrayal of the military perspective on the international system is purely fortuitous. If the Wilsonian ideas of freedom and democracy proclaimed at the close of World War I had borne some fruit, would Huntington have reached the same conclusion? If World War II had resulted in a continuing, cooperative relationship between the wartime allies of the United States and the Soviet Union, thus reducing the security threat, should the military perspective have remained the same? The wisdom of adhering to an unvarying viewpoint when fundamental changes may be occurring in the international system is questionable. Thus, having a military with a regimented perspective is not advantageous for maximizing military security, and therefore it does not meet Huntington's own test of fulfilling the functional imperative.

Comparing the Cold War and Post-Cold War Eras

As Huntington stresses, the continuation of the Cold War and the nuclear rivalry between the United States and the Soviet Union necessitated large standing American military forces: “Military requirements thus became a fundamental ingredient of foreign policy, and military men and institutions acquired authority and influence far surpassing that ever previously possessed by military professionals on the American scene.”¹² This ascendancy had obvious implications for the military's role in ensuring security. Huntington believed those implications were largely negative, as they meant the increasing influence of the military in society

and the concomitant exposure of the military to civilian and political views. They complicated military attempts to remain aloof from liberal society and maintain professional conservatism, while civilians actively attempted to supplant military conservatism with the liberalism of American society. In Huntington's estimation, both of these trends worked against military professionalism.

Huntington's belief that realism was the perspective needed to ensure national security during the Cold War might have had some merit in this period, which was characterized by a relatively stable bipolar balance of power between the United States and the Soviet Union. However, the realist perspective has not been successful in explaining the end of the Cold War, let alone predicting that end in the first place. Considering that the aftermath of the Cold War has meant the greatest changes for U.S. national security and the military's role since World War II, this is a serious shortcoming. Realism has not been able to deal adequately with the wake of the Cold War or outline a comprehensive new security approach that addresses the variety of novel threats now proliferating.

Even a cursory review of academic or policy studies related to the current security environment reveals extensive use of adjectives such as *uncertain*, *dynamic*, *fluid*, *unpredictable*, *unknown*, *turbulent*, *asymmetric*, and *complex*. Attempts have been made to define and categorize the variety and level of threats to U.S. national security, but even realists have reached no consensus similar to the one that prevailed about the Soviet threat during the Cold War. Congress has been so concerned about the implications of this new international system that it chartered the bipartisan U.S. Commission on National Security/21st Century (also called the Hart-Rudman Commission) in 1998 to examine the entire range of U.S. national security policies and processes.

In February 2001, the Hart-Rudman Commission published the last of its series of three reports, *Road Map for National Security: Imperative for Change*. The commission concluded that the United States faces distinctly new dangers that require rethinking fundamental assumptions from the Cold War period.

The key to our vision is the need for a culture of coordinated strategic planning to permeate all U.S. national security institutions. Our challenges are no longer defined for us by a single prominent threat. Without creative strategic planning in this new environment, we will default in times of crisis to a reactive posture. Such a posture is inadequate to the challenges and opportunities before us.¹³

This criticism of a reactive posture recalls the status quo nature of realism and its limitations in fashioning new policies for the future. Similarly, the commission stressed that national security no longer could be narrowly defined, but that it had to be broadened and integrated to include economics, technology, education, and other aspects.¹⁴ However, realists would be uncomfortable with broadening national security beyond standard military and defense concerns.

Many issues raised by the Hart-Rudman Commission have been evident in studies produced under the auspices of the Quadrennial Defense Review (QDR) 2001 Working Group. The Chairman of the Joint Chiefs of Staff sponsored this group as an independent and unbiased team charged with building intellectual capital for QDR 2001. The group analyzed 36 existing studies on the future security environment to identify points of consensus and divergence.¹⁵ Among many other items, the group agreed that there would be more nonstate threats to security and a greater threat of asymmetric attack. The group also made a concerted attempt to include dissenting viewpoints because these can “lead to plans that can also cope with alternative futures. The dissenting viewpoints are tools against complacency.”¹⁶ An example of such an alternative viewpoint is the notion that developing cooperative defenses with potential military rivals might be possible. This led to an interesting conclusion:

Perhaps prudent defense planning requires a blend of the two views in order to deal with a sudden change in circumstance—sort of a cooperation-plus-containment approach that seeks to encourage our fondest hopes at the same time it retains the means of prevailing in our worst nightmares.¹⁷

These points underscore the notion that any security perspective having a static and narrowly based approach to the international system is likely to endanger U.S. national security. As the first report of the Hart-Rudman Commission noted, “the very facts of military reality are changing and that bears serious and concentrated reflection. The reflexive habits of mind and action that were the foundation for U.S. Cold War strategy and force structures may not be appropriate for the coming era.”¹⁸ Conservative realism and the mindset that it perpetuates for the military professional fit this straitjacket and do not provide the flexibility necessary to entertain alternative ideas.

The security perspective employed is significant because it affects not only strategy but also force structure, roles, and missions. All of these issues have achieved prominence under the Bush administration, and a

number of related studies—both official and unofficial—are under way. Yet even before the Presidential election, knowledgeable observers and sectors within the defense arena itself were attempting to come to grips with these issues. In “Defending America in the Twenty-first Century,” Eliot Cohen pointed to failings not only in U.S. strategy (essentially Cold War-derived) but also in military organizational structures, still adapted mainly to a bipolar world.¹⁹ He called for a move from the two-major theater war (MTW) strategy to one based on American predominance in an international system characterized by “the consequent ambiguity and uncertainty of the circumstances in which the United States will use its military power.”²⁰ In Cohen’s view, the new strategy should have four components, including defense against weapons of mass destruction, conventional dominance, short-term contingencies, and peace maintenance (a concept advocated in numerous studies but one that would get short shrift from a realist perspective).

The QDR Working Group at the National Defense University found similar concerns, including the need to move away from the two-MTW equation. In its report of November 2000, the group identified 12 strategy decisions that it felt the next administration needed to make, established 4 broad strategy alternatives based on different world views, described alternative approaches to sizing the U.S. military, provided a methodology for assessing risk, examined strategy-driven integrated paths, and concluded with findings and recommendations.²¹ The underlying premise of this analysis is the absolute requirement to question common assumptions and entertain alternative views and strategies for ensuring national security in this complex environment.

Any number of additional, wide-ranging reports and studies could be cited to support these concerns. What is important for this analysis is the nearly unanimous conclusion that current thinking about security, strategy, the use of force, and roles and missions needs to be changed and expanded to include consideration of all options. However, a conservative realist mindset has difficulty displaying the flexibility required for that type of analysis. To continue urging the military to employ that perspective will handicap, rather than ensure, its ability to maximize the security of the United States.

Finally, a comparison of the strategic, operational, and tactical levels of war today makes apparent another potentially serious problem in promoting conservative realism as the only appropriate mindset for the military. Huntington contends, “the ideal military man is thus conservative

in strategy, but open-minded and progressive with respect to new weapons and new tactical forms.”²² A fundamental disconnect seems to exist between expecting the military to adhere to conservative realism at the strategic, or higher levels, and encouraging innovativeness at the lower levels. The human mind has difficulty coping with the dissonance in moving between a conservative strategic approach and an innovative and adaptive operational or tactical approach. In addition, in the current era of near-instantaneous communication and information, the distinctions between the strategic, operational, and tactical levels become fuzzy:

Simultaneous revolutions in military affairs, technology, and information, and a reordering of the international system, have shattered traditional boundaries, merging the tactical, operational, and strategic levels of war into a single, integrated universe in which action at the bottom often has instant and dramatic impact at all levels. Never in history have so many strategic burdens confronted the entire chain of command, ranging from the President in the White House all the way down to the individual rifleman at a security checkpoint in Macedonia.²³

Joint Vision 2020, which is meant to guide the continuing transformation of the Armed Forces, echoes this conclusion: “individuals will be challenged by significant responsibilities at tactical levels in the organization and must be capable of making decisions with both operational and strategic implications.”²⁴

Naturally, the professional military should be innovative and flexible. As Huntington himself states in another context:

Rigid and inflexible obedience may well stifle new ideas and become slave to an unprogressive routine. It is not infrequent that a high command has had its thinking frozen in the past and has utilized its control of the military hierarchy to suppress uncomfortable new developments in tactics and technology.²⁵

However, this is precisely the type of thinking that conservative realism encourages at all levels. This status-quo attitude probably would adversely affect the willingness or ability of the military to entertain fundamental changes to such things as strategy, roles, and missions that are necessary to meet a transformed international security environment. In fact, conservative realism could result in the worst type of “innovation.” The military might well be eager to adopt new technologies and weapon systems while still applying the same, dated military strategies and concepts. This could occur without any fundamental rethinking of how military strategy (the conduct of war) might evolve advantageously in

line with new capabilities. For example, a service such as the Air Force, which is wedded to the notion of planning an air campaign in a certain way to achieve military objectives, might be prone to continue to use newer weaponry in tactically smart ways without considering the adaptations that should be made for strategic (or political) purposes.

For all of these reasons, moving away from advocating a conservative realist mindset for the professional military is necessary. Huntington's viewpoint that the military ethic depends upon realism as an integral part of military professionalism is mistaken today, if it ever was appropriate. The military can fulfill its role of advancing national security only with an appropriately updated perspective.

A New Security Perspective for the Military?

The professional military ethic would be best served by the adoption of a *globalization perspective*.²⁶ The use of a nonideological term for this perspective is deliberate, as a political ideology may not be necessary, or even beneficial, for the military's role of ensuring national security.²⁷ A globalization ethic implies that a professional military officer would be attuned to both threats and opportunities that arise at all levels of the international system. In other words, both threats and opportunities would be viewed concurrently to assess the security climate and to develop appropriate military strategies and concepts. A globalization perspective would further demand that, in assessing threats, the military not only would look at capabilities of potential adversaries but also would consider intentions. In other words, the level of threat would be based on an analysis of capabilities plus intentions (unlike the realist tendency to focus purely on capabilities). For example, while the United Kingdom and France possess nuclear weapons and ample military capabilities, they can hardly be considered in the same threat category as a state such as China. Yet realism would take this viewpoint, as it acknowledges no permanent friends or allies in the international system.

In addition, the ability to analyze intentions and understand the perspective of potential enemies is essential to the concept of deterrence. Colin Gray rightfully points out that deterrence is much more problematic for the United States to achieve today than it was during the Cold War. Not only is the Nation unsure of whom it might wish to deter, but also the variety of motivations of state and nonstate actors that could pose a threat is more complicated.²⁸ Yet realism makes no contextual allowance for the different motivations that may impel actors, an understanding that is

crucial to devise effective deterrence strategies. Nor does realism give much credence to the increasingly asymmetric threat arising from nonstate actors, all of whom are much more difficult to deter. A globalization perspective that emphasizes an understanding of the variety of actors in the international system, regardless of their category, seems more likely to provide the possibility either to preempt or co-opt potential adversaries.

Both joint doctrine and the writings of U.S. military leaders increasingly demonstrate awareness of the necessity—indeed, responsibility—for a changing military viewpoint on security matters. The Joint Strategic Planning System specifically formalizes a method for the U.S. military leadership to engage in “continuous study of the strategic environment to identify conditions or trends that may warrant a change in the strategic direction of the Armed Forces.”²⁹ Concepts such as *strategic agility* underscore the need for adaptation. Joint Publication 1, which is the capstone publication for all U.S. joint doctrine, specifically praises strategic agility as a desirable quality for the military, defining it as “the ability to adapt, conceptually and physically, to changes in the international security environment.”³⁰

At the highest strategic level, the current National Military Strategy situates military responsibilities in meeting national security needs under the rubric of “shape, respond, and prepare now.”³¹ The military realizes that it must have the ability to respond across the spectrum of conflict, which would be a standard realist understanding. However, just as important is the stated need to contribute actively to peace, which runs counter to realist ideas. *Joint Vision 2020*, which provides the template for the continuing transformation of the Armed Forces, emphasizes that the military must be able “both [to] win wars and contribute to peace.”³² The notion of shaping falls under the general U.S. security posture of peacetime engagement in the post-Cold War period. In public addresses and in military-related writings, numerous senior officers have stressed proactive shaping and engaging as integral functions that the military must perform. The National Military Strategy advocates shaping because it “helps foster the institutions and international relationships that constitute a peaceful strategic environment by promoting stability; preventing and reducing conflict and threats; and deterring aggression and coercion.”³³ The strategy underscores the importance of a multifaceted understanding of the deterrence environment and the actors within it, which a realist perspective does not promote.

Theater engagement plans offer good illustrations of the military's role in proactively contributing to peace. These plans, which the four regional combatant commanders are required to produce for their areas of responsibility, devote great attention to the concept of shaping the environment. This type of strategic approach is particularly striking because such active involvement of the military in engagement and cooperative activities in various regions of the world is contrary to standard realist understandings.

All of these instances demonstrate that military security is a much broader concept than merely preparing to fight major or even limited wars. Thus, the professional military ethic demands that officers have a fuller understanding of security issues and the integrated use of all instruments of power (military, economic, and political) to deal with the multifaceted threat environment.³⁴ A globalization perspective allows the military to take advantage of opportunities to enhance national security rather than to respond to threats that have been allowed to mature unhindered.

Note that these propositions run directly counter to Huntington's view of the professional ethic. He decries what he terms *fusionist theory* in which the military is supposed to incorporate "political, economic, and social factors into their thinking" and thereby "deny themselves in order to play a higher role [viz., military statesman]."³⁵ Huntington even speaks disparagingly of the establishment of institutions such as the National War College because not only would they "enable military officers to appreciate the complexities of national policy, but because they would also enable military officers to arrive at their own conclusions concerning political and economic issues."³⁶ His concern is that this independence would dilute military officer capability to represent military security issues effectively, their primary responsibility.

However, Huntington appears to have this wrong. The complex international system demands that military officers possess a broad understanding of issues to respond effectively to a spectrum of threats and opportunities. It is no longer possible, if it ever was, to separate strands of putatively military issues from political or economic ones. As Army General Richard Chilcoat has convincingly argued, military leaders must have a grasp of all the elements of national power to perform their role of advising on national security strategy.³⁷ If proactive engagement allows the military to help forestall or resolve actual conflict or war, then surely the security situation for the United States is much improved.

Conclusions

In today's dynamic international environment in which change and the unforeseen are the only givens, a conservative realistic perspective is likely to hamper rather than enhance the military's ability to defend the United States. Because of its preoccupation with threats and maintaining the status quo, realism is far too constricting a mindset for the professional military. Rather, a perspective such as globalization is a much more desirable component of the professional military ethic.

As Huntington has recognized, "the tensions between the demands of military security and the values of American liberalism can, in the long run, be relieved only by *the weakening of the security threat* or the weakening of liberalism."³⁸ The specter of worldwide communism seemed real in the mid-1950s when Huntington was writing. But times have changed; the United States has no peer competitors for the foreseeable future, lowering the strategic security threat. In fact, current and proliferating threats demand a proactive strategy by military officers with a broad, geostrategic perspective.

Notes

1. Samuel P. Huntington, *The Soldier and The State: The Theory and Politics of Civil-Military Relations* (Cambridge, MA: The Belknap Press of Harvard University Press, 1957), 79, italics added.

2. Huntington develops fully the concept of the professional military ethic in his seminal work. The ethic consists of a set of values, attitudes, and perspectives that allows military members to carry out their fundamental function of employing force on behalf of society, to protect that society's interests. While his analysis of the three fundamental characteristics of a profession—expertise, responsibility, and corporateness—is insightful, this essay addresses it only to the extent necessary to advance the central argument.

3. Many of these ideas clearly touch upon another critical issue, civil-military relations, which was actually the focus of Huntington's book. While not dismissing the importance of this issue in any way, this essay focuses on national security, only peripherally addressing civil-military relations.

4. Huntington, 62. He carefully lays out the three fundamental criteria that constitute a profession: expertise, responsibility, and corporateness (7–18).

5. *Ibid.*, 62–65. Huntington describes these tenets as part of the military ethic, but his affinity for realism is evident in this work and many of his other writings.

6. The term *conservative* is evaluated here only in terms of its relationship to national security. Not analyzed is the assumption that the military tends to hold conservative social values and mores, a hypothesis that forms the background for an entirely different debate than the one addressed here.

7. This is what Huntington labels *academic realism*. See his discussion on 459.

8. The classic treatment of structural realism is by Kenneth Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979).

9. Huntington, 62.

10. *Ibid.*, 306.

11. *Ibid.*

12. *Ibid.*, 345; also see 456–457.

13. The United States Commission on National Security/21st Century, *Road Map for National Security: Imperative for Change (Final Draft Report)* (Washington, DC: The United States Commission on National Security, January 31, 2001), iv.

14. *Ibid.*, 5.

15. Sam J. Tangredi, *All Possible Wars? Toward a Consensus View of the Future Security Environment, 2001–2025*, McNair Paper 63 (Washington, DC: National Defense University Press, 2000).

16. *Ibid.*, 141–142.

17. *Ibid.*, 142.

18. The United States Commission on National Security/21st Century, *New World Coming: American Security in the 21st Century: Major Themes and Implications* (Washington, DC: The United States Commission on National Security, September 15, 1999), 57.

19. Eliot A. Cohen, “Defending America in the Twenty-first Century,” *Foreign Affairs* 79, no. 6 (November–December 2000), 41.

20. *Ibid.*, 44.

21. Michele A. Flournoy, *Report of the National Defense University Quadrennial Defense Review 2001 Working Group* (Washington, DC: National Defense University Press, 2000).

22. Huntington, 71.

23. Richard A. Chilcoat, *Strategic Art: The New Discipline for 21st Century Leaders* (Carlisle, PA: U.S. Army War College, 1995), 1–2.

24. Chairman of the Joint Chiefs of Staff, *Joint Vision 2020* (Washington, DC: Government Printing Office, 2000), 19.

25. Huntington, 75.

26. My criticism of conservative realism in this analysis does not imply that I am advocating that the professional military adopt what might be considered its polar opposite—liberalism. In fact, the notion that the military might espouse liberalism as an ideology is one of Huntington’s main concerns in *The Soldier and the State*. This is related to his belief that the primary threat to U.S. military security has been the ideological one, “the American attitude of mind which sought to impose liberal solutions in military affairs as well as in civil life” (457). My intent is neither to dispute Huntington’s characterization of American society as liberal nor to claim that liberalism is the preferable security perspective for the professional military.

27. I disagree with Huntington’s contention that, of the four major Western political ideologies he analyzed in *The Soldier and the State* (Marxism, fascism, liberalism, conservatism), conservatism “alone has no political-ideological pattern to impose on military institutions” (94). Conservatism espouses the status quo and views change with suspicion. This reinforces tendencies toward hierarchy and continuation of the same policies and classes of people in power.

28. Colin S. Gray, “Deterrence in the 21st Century,” *Comparative Strategy* 19, no. 3 (July–September 2000), 255–262.

29. Chairman of the Joint Chiefs of Staff, *Joint Strategic Planning System*, CJCSI 3100.01A (Washington, DC: The Joint Staff, September 1, 1999). This document stresses throughout the importance of the military leadership—the Chairman of the Joint Chiefs of Staff, the Joint Chiefs of Staff, the Joint Staff, the commanders in chief of combatant commands, and other key defense agencies—continuously reassessing the strategic environment for global changes, especially emerging issues, threats, risks, capabilities, and technologies.

30. Joint Chiefs of Staff, *Joint Warfare of the Armed Forces of the United States*, Joint Publication 1 (Washington, DC: Joint Chiefs of Staff, November 14, 2000), x.

31. Chairman of the Joint Chiefs of Staff, *National Military Strategy of the United States: Shape, Respond, Prepare Now: A Military Strategy for a New Era* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 1997).

32. *Joint Vision 2020*, 1.

33. *National Military Strategy of the United States*, 12.

34. Chilcoat persuasively articulates these ideas.

35. Huntington, 351–352.
36. *Ibid.*, 352.
37. Chilcoat, 4.
38. Huntington, 456, italics added.

Broken Promises: The United States, China, and Nuclear Nonproliferation

Nathaniel H. Sledge, Jr.

The end of World War II and the anxiety that it spawned gave rise to grave concerns throughout the free world and posed many challenges for the new and reluctant superpower, the United States. The entire world was recovering from the deleterious effects of global war. Imbalances in political, military, and economic power emerged globally and regionally. Moreover, regional instability and the advent of the Cold War, waged against the communist monolith, promised protracted global conflict. Most ominous, however, was the emergence of the nuclear age and its endemic bipolar competitiveness.

Since the United States dropped atomic bombs on Japan in 1945, the nations of the world have been apprehensive. Russia acquired a nuclear weapons capability in 1949, then Britain (1952), France (1960), the People's Republic of China (1964), and Israel (1967–1969).¹ Since then, India (1974), South Africa (1979–1980), and Pakistan (1987–1990) have achieved a nuclear weapons capability.

The Arab oil embargo of 1973–1974 precipitated not only an energy crisis but also the proliferation of nuclear technology and materials. Many nations sought to reduce their dependence on fossil fuels, prompting them to turn to nuclear energy to meet ever-increasing needs. Then, in 1974, India exploded a “peaceful” nuclear device and triggered fearful reactions around the world, particularly within the U.S. Government. India assured the world that its intentions were peaceful, but a nuclear explosion is, nonetheless, a nuclear explosion. India purchased its reactors and nuclear technology from Canada, an ally and neighbor of the United States.

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America learned the lesson that nuclear technology sought for peaceful purposes could potentially enable other, more militant intentions.

It is past time to recognize the common practice of “peaceful” nuclearization as cover for nuclear weaponization. Since China is arguably among the worst proliferators of nuclear and missile technology, halting its nuclear exports is a vital U.S. strategic interest. In fact, it is among the most important national security issues facing the United States.

Given U.S. global predominance and China’s prospects for economic growth and influence, the United States must engage China to ensure Asian regional stability. Experts are pessimistic about Russia and Japan taking leadership roles in Asia, yet they are optimistic about China’s emerging role. At this critical time, China could become a constructive force in the region or the spoiler of Asia’s fleeting fortunes. Informed observers expect China and the United States to share important, though unequal, leadership roles in shaping Asia in the 21st century.² In anticipation, China appears to be seeking engagement with the United States. Consider Chinese President Jiang Zemin’s visit to the United States in 1997 and his sitting for an unprecedented interview with *60 Minutes* correspondent Mike Wallace in September 2000 to open a dialogue to promote “mutual respect and friendship” between the two nations.³

The door of opportunity is now open for positive U.S.-Chinese dialogue on a broad range of issues. It is incumbent on America to take advantage of this opportunity to secure better relations and trade with China and, more importantly, to encourage greater adherence to nonproliferation regimes and, hopefully, to human rights conventions. China, however, resists pressure to join and act within the spirit of the major nonproliferation regimes, preferring a deliberate, incremental approach. It will not consider greater cooperation on various nonproliferation regimes in isolation, unless the United States and the international community address its prestige and its economic and security issues first. America must respect China and allow it to save face because China is not only led by suspicious and paranoid leaders, but it also is considered a second-strike nuclear power with unwieldy and outmoded, yet immense, conventional forces. This feeling-out process will take time, perhaps decades. Therefore, the United States must have a long-term perspective. As China becomes more engaged with the U.S.-led global economy, the hope is that it will transform into a more democratic and prosperous society, less inclined to threaten its neighbors and proliferate nuclear weapons. Such optimism resides in the theory that a flourishing Western-style, free-market economy

encourages democratic government. If America is unwilling or unable to commit itself to making the most of this historical opportunity, the world must face the dire consequences.

Introduction

I know there are some who have never seen an arms control agreement they like—because rules can be violated, because perfect verification is impossible, because we can't always count on others to keep their word. Still, I believe we must work to broaden and strengthen verifiable arms agreements. The alternative is a world with no rules, no verification, and no trust at all.

—President William Clinton, March 16, 2000,
Carnegie International Nonproliferation Conference

Nuclear proliferation and U.S. efforts to stop it began in earnest in the late 1960s and early 1970s. With China's detonation of a nuclear device in 1964, the number of nuclear powers increased to five. What was then regarded as an inevitable act by the world's largest communist regime sowed the seeds for nuclear proliferation among other ambitious and resentful rogue states, or *states of concern*. China's accession to nuclear weapon status ushered in an era of state-level competition, bringing into focus the specter of a globe rife with nuclear weapons.

But it was India's explosion of a "peaceful" nuclear device in 1974 that compelled the United States to adopt a tougher stance toward nuclear proliferation. Specifically, America began to seek international ratification of stricter controls on the spread of nuclear fuel cycle technology and fissile material. On balance, U.S. efforts have been successful. Unfortunately, U.S. attention to the issue of nuclear nonproliferation has been inconsistent and, by some measures, ineffective. A case in point is American nonproliferation policy and its implementation with respect to China. Evidence suggests that, despite some observance of nonproliferation norms over the years, China has continued to proliferate nuclear and missile technology and materials to states of concern, taking advantage of U.S. reluctance to enforce nonproliferation agreements.

This essay assesses the U.S. policy of nuclear nonproliferation with respect to China. It offers recommendations for improvement of that policy to keep it effective over the next generation. It also addresses several fundamental questions: What are China's motivations for proliferating nuclear materials and technology? Has U.S. nonproliferation policy been effective during the last quarter century in stemming the export of Chinese nuclear technology, materials, and delivery systems? Is current U.S. policy

likely, over the next generation, to deter Chinese assistance to emerging nuclear weapon states, many of which are either hostile to U.S. vital interests or threatening to regional stability? How can U.S. policy be improved?

The Stakes

Since the advent of the atomic bomb, preventing the spread of nuclear weapons has been a primary U.S. foreign policy goal. The Cold War focused U.S. strategy clearly on the Soviet threat and encouraged unity of purpose in implementation of the national security strategy. In the wake of the Cold War, nuclear nonproliferation is now more important for several reasons. While East-West tensions have subsided, other challenges are giving the National Command Authorities greater cause for concern. First, the world is more precarious without the stabilizing elements of the Cold War. Second, religious fundamentalism, nationalism, narco-trafficking, and transnational threats are gaining momentum, and terrorism is the likely means of advancing these interests. The ultimate terrorist tool is the leveraging of nuclear weapons for international blackmail or revenge. Third, the fragmentation of former Soviet satellite governments has spawned criminal enterprises that are likely to traffic in nuclear-weapon-grade materials and technology in the global black market, with total disregard for nonproliferation accords. Additionally, the virtual disintegration of the Russian government and military, accompanied by widespread economic malaise, indicate lax security and inadequate physical control of nuclear weapons and materials.⁴ Consequently, U.S. nonproliferation policy is of much greater strategic significance today than it was during the Cold War. Nuclear nonproliferation agreements are not autonomous or self-policing.⁵ Therefore, maintaining the “powerful norm of nuclear weapons renunciation” will require aggressive enforcement. Vigilance (certification and verification) is essential for any hope of success.

If the United States does not effectively enforce its nonproliferation treaties and agreements with China, several undesirable consequences may follow: evisceration of its nonproliferation policy, encouragement of states of concern to develop nuclear weapons, discouragement of previously cooperative nonproliferators, loss of credibility in Asia and globally, challenges to American leadership, Asian political, military, and economic instability, emergence of a regional nuclear arms race, and diminished national security.

China's Motivations

Security

China's primary motivation for sending nuclear exports to Pakistan is to strengthen its security against India, which China perceives as having hegemonic ambitions in South Asia.⁶ China and India enjoyed mutual respect and friendly relations in the early 1950s. But since 1962, when the two nations fought a war over Chinese border incursions, relations have been strained. Having gained territory in the Ladakh and Aksai Chin regions, China considers itself the victor in the conflict.⁷ Both countries did become optimistic about their future relations after Rajiv Gandhi's visit to Beijing in 1988.⁸ But in 1989, India's test of a medium-range missile capable of hitting Chinese targets chilled relations well into the 1990s. India's provision of refuge for the Dalai Lama has further aggravated relations. Chinese overtures to India have appeared disingenuous because of China's simultaneous assistance to India's traditional enemy, Pakistan.⁹ Indian display of nuclear prowess in May 1998 has increased Chinese vigilance and may inhibit both Chinese good will and its efforts to stem proliferation. China is likely to continue to leak nuclear technology and materials to its ally Pakistan as long as the former feels the need to keep India in check.

China may also be reluctant to cooperate fully with international nonproliferation regimes because it disagrees with U.S. plans for theater missile defense (TMD) and other military assistance to Japan and Taiwan.¹⁰ The mere notion that the United States would provide TMD to Taiwan is particularly unsettling to the Chinese. Beijing perceives Taipei as a political threat whose example of democracy may embolden those inside China who tire of living under a dictatorial regime.¹¹ Taipei is at the heart of China's desire to gain complete control of its territories; it symbolizes the essence of Chinese government suspicions and paranoia in regard to both internal and external threats. Internally, the Chinese have much to contend with: Taipei's quest for independence and hesitation on talks, Buddhist and Falun Gong religious sects, Islamic insurgency in Xinjiang, demands for human rights, environmental degradation, overpopulation, unemployment, corruption, insecure bureaucracies, and a nationalistic and hawkish military seeking resources for modernization.¹² Externally, the Chinese are suspicious of Western alliances, a united Korea, and their historical competitors: Japan and America. The Chinese believe that the North Atlantic Treaty Organization (NATO) countries may eventually include Japan, make

overtures to Taiwan, and ultimately back China into a political corner.¹³ Moreover, a united Korea in conjunction with a powerful Japan might challenge China's economic ascendancy and remove its security buffer zone. The Chinese also remember the Korean conflict, American "gunboat diplomacy" in the Taiwan Strait during the Korean conflict and in 1996, the 1954 bilateral defense treaty and decades of military assistance to Taiwan, and more recently, the bombing of the Chinese Embassy in Yugoslavia. Additionally, the Chinese perceive the 1999 U.S. intervention in Yugoslavia on behalf of independence-seeking Kosovar Albanians a dangerous precedent.¹⁴ Thus, China's perception that the United States is meddling in its internal affairs vis-à-vis Taiwan underscores its regional insecurity and belief that America seeks global hegemony. This insecurity helps drive Chinese nuclear modernization and proliferation.

Ambition

In the 1960s, China openly favored proliferation as a rallying point against imperialism and as a counterbalance to U.S. and Soviet power.¹⁵ National pride, the desire for dignity and prestige, and regional ambition still motivate China to develop and modernize its nuclear arsenal. Proliferation is an extension of China's ambitious modernization effort. China views proliferation as a means to assert itself and compete with the United States, despite the restrictions of nonproliferation regimes.¹⁶ Thus, China considers the verification provisions of the Missile Technology Control Regime (MTCR) as discriminatory, particularly to militarily weak states such as itself.¹⁷ Regarding nuclear weapons, America acknowledges the discriminatory nature of the nation-state hierarchy, but it does not intend to disarm any time soon because of its unprecedented leadership role and the opportunity to maintain global predominance. Nuclear weapons are also needed as a hedge against Russia and China.¹⁸ Thus, nuclear weapons are still an essential part of the U.S. strategy to deter aggression.¹⁹ Consequently, China's nonproliferation officials argue that the United States continues to maintain a Cold War posture because its weapons are offensive in nature and it has rejected the idea of no first use.²⁰ Therefore, China will likely continue to proliferate nuclear weapons to redress the overwhelming inequity in nuclear and conventional military power compared to the United States.

Economic Ascendancy

China is also proliferating nuclear technology and materials to bolster its economy. China is an emerging economic power in Asia. Given the infancy of its more powerful role in Asia, China has sought hard currency

buyers for its products, including nuclear technology and materials. Also, because of its “aggressive effort to increase its economic prosperity,” it is expected to strengthen its business sectors and keep afloat pseudo-government and semi-autonomous commercial entities, seeking to protect them from foreign competition.²¹ These enterprises include those trafficking in nuclear and missile technology and materials. China continues to earn hard currency however it can to implement its comprehensive reform plan, to execute major capital projects (for example, Three Gorges Dam), to achieve open trade with the developed world, to stabilize its currency, and to maintain a high annual growth rate (greater than 8 percent) necessary to achieve real long-term growth.

On September 19, 2000, after much wrangling and despite impassioned pleas by Cold War conservatives, the Senate approved normal trade relations with China. The vote was 83 to 15, indicating strong support for commercial, business, and trade ties with the world’s largest market. Supporters of the bill hope that the new trade relationship will prompt China to soften and eventually abandon its stance on human rights violations and nuclear proliferation. Without Permanent Normal Trade Relations (PNTR) with the United States and without membership in the World Trade Organization (WTO), China would be deprived of first-class global economic status. If history is any guide, it will take a considerable amount of time for the mutual benefits of PNTR to accrue to either the United States or China. In the meantime, and for the foreseeable future, nuclear sales will be considered important contributors to China’s economic bottom line.

Other Motivations

Media articles, political punditry, and statements by prominent U.S. public figures alleging Chinese attempts to influence the 1996 U.S. Presidential elections in favor of the Clinton-Gore ticket have angered the Chinese. Since the early 1990s, implied accusations of Chinese nuclear espionage at Los Alamos and other U.S. national laboratories have left Chinese officials equally infuriated. The U.S. bombing of the Chinese Embassy in Serbia in spring 1999 unleashed broad and violent Chinese animosity toward America, resulting in attacks on the U.S. Embassy in China and cooled relations that still have not warmed appreciably. Finally, Chinese officials bristle at continuous allegations of human rights violations in reference to the Tiananmen Square “massacre” and at the Congressional legislation that it spawned, which demands unequivocal assurances that China is not proliferating nuclear technology.²²

U.S. Policy

Since the dawn of the nuclear age, the United States has advocated a nuclear nonproliferation policy designed to impede the spread of nuclear weapons, associated technology, and delivery systems. When the potential devastation is taken into account, the spread of nuclear weapons poses risks to U.S. economic interests, including the free flow of trade and access to natural resources. Accordingly, the U.S. National Security Strategy (NSS) of December 1999 asserts that preventing the spread of nuclear weapons is a vital national interest. To achieve its strategic goals, America seeks verifiable arms control, arms reductions, and nonproliferation agreements.²³

President Clinton acknowledged the widespread skepticism regarding effective nonproliferation. He knew compliance in nonproliferation might not be perfect, but he believed that the United States had no other choice but to continue to seek multilateral agreements to prevent the spread of nuclear weapons and technology. At the Non-Proliferation Conference in 2000, Secretary of Energy Bill Richardson reinforced the President's theme: "[Our policy] is the dismantling of weapons, the securing of materials used to build arms, the diminishing of nuclear peril around the world, and the allying of former foes in friendships for the ages." To realize this vision, Secretary Richardson recommended diplomatic initiatives, provision of economic aid, support of social development, promotion of technical dialogues, emphasis on regional interdependence, and pursuit of energy cooperation.²⁴

U.S. policy also includes the military element of power. The NSS provides for counterproliferation action similar to Israel's June 1981 bombing and destruction of the French-built Osiraq nuclear reactor facility near Baghdad to thwart Iraqi nuclear ambitions.²⁵ However, the negative consequences of such action would be ominous for the United States, making this use of the military element of power an unlikely last resort.²⁶ Short of preemptive military strikes and other active military enforcement, America seeks to deter nuclear expansion through the existence of its own formidable nuclear arsenal and through the credible deterrent embodied in sizeable, projectable, and forward-deployed conventional forces.

The United States has succeeded in preventing the spread of nuclear weapons to many countries that have the desire or the capability, or both, to develop them: Argentina, Belarus, Brazil, Egypt, Germany, Japan, Kazakhstan, Romania, South Africa, South Korea, Taiwan, and Ukraine. Washington has arranged security alliances with many of these countries to win their compliance. With others, economic, developmental, and regional

considerations have made the difference. Selected nations, realizing that they could not afford the expense of developing and maintaining a nuclear arsenal, have abandoned their ambitions for nuclear weaponization.²⁷ In the cases of Belarus, Kazakhstan, and Ukraine, the United States has successfully brokered the disarming of formerly de facto nuclear states.²⁸ South Africa is unique in that it was a full-fledged nuclear weapons aspirant that did an about-face by dismantling its existing nuclear warheads and joining the nonproliferation mainstream.

These successes notwithstanding, it is no surprise that several countries appear oblivious to U.S. efforts to constrain their nuclear ambitions. After all, possession of nuclear weapons can transform a country into a superpower in meaningful ways. In any case, the number of nonproliferation policy failures presents a challenge to global peace and prosperity. These include Algeria, India, Iran, Iraq, Libya, North Korea, Pakistan, and Syria. For most of these states, U.S. goals are too casual (low expectations). U.S. coping strategies such as economic sanctions and counterproliferation through economic isolation, stepped-up monitoring, and military deterrence have failed to halt proliferation in these states. Because in the past Russia and China have enabled some of our policy failures, they too should be added to the list. Few would dispute that Chinese technology transfers to Pakistan enabled the dueling demonstrations of nuclear weapons capability in May 1998.²⁹

China Policy Assessment

U.S. policy calls for “comprehensive engagement” with China.³⁰ Peter Tarnoff, Under Secretary of State for Political Affairs, asserts:

The long-term objective of [U.S.] policy is to *enhance the security and prosperity of the American people by encouraging China’s integration into the world community, thereby fostering China’s adherence to internationally-recognized norms and standards of behavior. . . .* On non-proliferation, we have made clear our determination to fully implement our laws and to *respond forcefully* to irresponsible behavior. At the same time, we have obtained important new public Chinese commitments through *active consultations*. [italics added]

In other words, the United States seeks to reduce South and East Asian regional threats and improve Chinese nonproliferation compliance through deterrent economic measures and better, more constructive U.S.-China relations.

Former National Security Advisor Samuel (Sandy) R. Berger stressed that the United States “will not shrink from the fight against weapons of mass destruction.” Berger outlined a more specific U.S. non-proliferation and arms control policy at the 1999 Carnegie International Non-proliferation Conference. He summarized it as “strengthening the non-proliferation regime, addressing regional threats, and bolstering defenses.”³¹ While all general U.S. policies outlined earlier apply to China as well, Berger cited U.S. policy specifically with respect to Chinese nonproliferation: “A second set of priorities focuses on the most pressing regional proliferation challenges, [which include] working with China on common non-proliferation goals. We will continue to express our hope that [China] will join the MTCR.”³²

The U.S. policy of engaging China has been effective. Nevertheless, China is sowing the seeds of future insecurity with its continued violations of nonproliferation regimes. It continues to proliferate nuclear technology and material to bolster its security in the context of its tenuous relationship with the United States. Further, China is selling nuclear technology to sustain its dramatic economic growth. America has tolerated this behavior because it is unwilling to impose real sanctions on China for fear of losing commercial and trade ties. Moreover, U.S. policy implementation has failed to address China’s primary motivations for proliferating insecurity and potential conflict with India and Taiwan. Some observers view U.S. failure to engage China on arms control as either too casual (perceiving China to be far from a genuine nuclear threat to the United States), disrespectful (misreading China’s ambitions to become a peer competitor), or capriciously indifferent (not expecting China to observe global standards). Moreover, the American proposal to deploy a national missile defense (NMD) system for the United States and TMD for Taiwan has compounded this detachment, further alienating China.

Successes

The United States has been successful in getting China to participate in many nonproliferation and arms control agreements and in persuading China to take actions in the spirit of nonproliferation regimes.³³ For example, China joined the International Atomic Energy Agency (IAEA) in January 1984 and pledged to apply IAEA standards on its nuclear exports. In January 1989, China participated in the convention on the Physical Protection of Nuclear Material. In 1992, China joined the NPT and pledged to uphold the original 1987 MTCR guidelines. In July 1996, China ceased nuclear testing and announced a moratorium on further testing.

China was also instrumental in gaining North Korean acceptance of the Agreed Framework (1994).³⁴ Between 1995 and 1997, China suspended plans to give Iran two 300-megawatt Qinshan-type nuclear power reactors and suspended plans to construct a uranium conversion facility for Iran. Additionally, in October 1997, China officially joined the Zangger Committee.³⁵ In 1997, China agreed to halt further nuclear cooperation with Iran and pledged during Defense Secretary Cohen's visit not to provide Iran with cruise missiles or related technology. The Chinese white paper, *China's National Defense* (July 1998), demonstrates China's recognition of the importance of nuclear transparency. Finally, as of 1998, China has pledged to stop producing fissile material.³⁶

Failures

While China has been a signatory to the major nonproliferation agreements and has made some progress in cooperating with multilateral coalitions dedicated to nonproliferation, its participation is conspicuously absent from certain important regimes. Likewise, China's nuclear technology export policies continue to threaten world peace and reflect stagnant U.S.-China relations. The following concerns are summarized from the most recent international nonproliferation conference report:³⁷ China is not a member of other multilateral export control regimes, such as the MTCR, the Australia Group, the Wassenaar Group, and the Nuclear Suppliers Group (NSG).³⁸ China has not ratified the 1996 Comprehensive Test Ban Treaty (CTBT) (nor have the United States and Russia), nor did China approve indefinite extension of the NPT in 1995. U.S. dual-use exports intended for peaceful uses have been diverted to military-related facilities under the noses of presumably lethargic Chinese officials. Additionally, China has not adopted explicit export control measures for missile and dual-use technologies. Finally, China has had difficulty establishing and enforcing export controls it has adopted for nuclear weapons.

American conservatives consider China's many assurances of cooperation on nonproliferation to be little more than a façade covering a body of Chinese violations, covert and overt. It can be argued that China practices a policy of exceptionalism and selectivity in adhering to nonproliferation regimes. Simultaneously, China cooperates, proliferates, and deflects criticism.³⁹ In response, the United States has imposed sanctions three times against China for missile-related exports. In each case, the sanctions were slight financial blows of a perfunctory nature.⁴⁰ The Department of State has acknowledged that Chinese assurances

have become meaningless.⁴¹ Only recently, a Senate Foreign Relations Committee report charged that “the People’s Republic of China consistently fails to adhere to its non-proliferation commitments. . . . Beijing merely mouths promises as a means of evading sanctions.” The report adds that the Clinton administration was lax in enforcing nonproliferation agreements and “has shown nothing but consistent disregard for [U.S.] non-proliferation laws.” The Senate Foreign Relations Committee has subsequently tried unsuccessfully to amend the recent legislation that granted China permanent normal trade relations, calling for sanctions against China for selling nuclear-related technology to states of concern and for violating IAEA safeguard provisions.⁴²

Trade versus Security

Inconsistency between U.S. declared policy and its execution is to blame for the mixed record in nuclear nonproliferation. Critics of the Clinton administration called for action because talks with China have generally been lengthy and inconclusive.⁴³ But China has broken the code for dealing with the United States. That is, it spreads nuclear technology in return for hard currency and depends on U.S. commercial interests to bail it out when pressured by the U.S. Government to comply with non-proliferation agreements. In short, the United States has put Chinese trade concerns and business ties above national and regional security and the containment of nuclear weapons.

Seeking improved trade relations, America has turned a blind eye to China’s nuclear proliferation. Since 1985, when China made nonproliferation pledges to the Reagan administration, it has provided unsafeguarded help to Algeria, Iran, Iraq, and Pakistan. Since 1992, such Chinese assistance applicable to nuclear weapons clearly violates the Nuclear Non-Proliferation Treaty. U.S. failure to criticize China over nuclear proliferation, while applying tough sanctions for intellectual property violations (software and audio and video recordings), sends the wrong message on our priorities.

Not surprisingly, China continues to export hardware and technology to unsafeguarded nuclear plants.⁴⁴ China has continued to assist Iran and North Korean covertly with their missile programs.⁴⁵ Other than making public statements and delaying PNTR, the United States has done little in the wake of China’s export of 5,000 centrifuge magnets to the Pakistani Kahuta enrichment plant in May 1996.⁴⁶ Informed observers find China’s professions of ignorance about such technology transfers insulting. Such disregard indicates how lightly the Chinese take U.S.

threats of sanctions under the auspices of the NPT, which they joined in 1992.⁴⁷ China's behavior is particularly egregious in view of Pakistan's refusal to accept safeguards that prohibit any NPT signatory from exporting technology to it. Under U.S. proliferation law, international missile-related sales that violate the MTCR require the United States to impose sanctions against China.⁴⁸ Given its documented violations of the MTCR, it is astonishing that China's behavior has been tolerated. But in addition to lax enforcement, U.S. failure to enforce nonproliferation policy has only heightened China's security concerns regarding India, and vice versa. Therefore, China's clandestine proliferation to Pakistan, while disturbing, is predictable. It can be expected to continue until America helps allay China's security concerns.

Arms Control

Lack of U.S.-China bilateral arms control agreements exacerbates the difficulties of nonproliferation dialogue. U.S.-China relations, while lacking the enmity and conflict of U.S.-Russian nuclear arms dialogue, have failed to address bilateral arms control, instead focusing exclusively on nuclear nonproliferation. This oversight is indicative of the immaturity of U.S.-China dialogue, as well as U.S. reluctance to engage the Chinese as it has the Russians.⁴⁹ The Chinese may perceive this reluctance as another example of U.S. arrogance and global hegemonism. In fact, China wants U.S. and Russian nuclear arsenals dramatically reduced before it engages in any nuclear arms reduction talks (in accordance with START II).⁵⁰

Missile Defense

China's efforts to build up its nuclear arsenal and improve its missile technology could evoke responses in kind from India and states in East Asia to deter China. Over the next generation, the Pacific Rim could become a hotbed of nuclear weaponization and missile development. The United States considers the provision of TMD under its security umbrella as a way to trump China's nuclear and conventional missile capabilities.

The Chinese see little reason to adhere completely to nonproliferation regimes while America advocates national and theater missile defense programs. The Chinese believe that the international security promoted by the Anti-Ballistic Missile Treaty (ABM) of 1972 is undermined by U.S. plans to deploy NMD in the 2006–2007 timeframe. In fact, Chinese officials have hinted in recent years that deployment of NMD may lead China to increase its nuclear arsenal.⁵¹ Nevertheless, NMD policy

must be viewed in the context of China's ambitions to improve its strategic nuclear missiles and warheads to reach targets in North America.⁵²

The NMD program has received mixed reviews among U.S. officials. Former Secretary of Defense William Cohen supported plans to continue the development of NMD. President Clinton supported this program until September 2000, when, despite Secretary Cohen's advice, he decided to postpone until the next administration a decision to deploy the NMD system. NMD testing and development will continue, but construction of a radar facility needed for system deployment has been delayed. Congressional opponents claim that President Clinton postponed the decision to placate Russia and China. The postponement is expected to have a positive impact on U.S.-China relations and, by extension, to enhance progress on nuclear technology and missile proliferation and arms control dialogue. In the meantime, Congressional conservatives are clamoring for nuclear testing. They believe that the NMD program will sustain U.S. global supremacy, chasten China, and prevent nightmarish scenarios of nuclear blackmail by states of concern such as North Korea, Iraq, or Iran. The Senate refusal to ratify the CTBT is indicative of regressive conservative "saber rattling" on U.S. nuclear weapons development. It portends scrapping the Anti-Ballistic Missile Treaty with Russia and reducing U.S. leadership in nuclear nonproliferation.⁵³

On the other hand, given the gains in nuclear nonproliferation and the unwritten ultimate goal of denuclearization, detractors of NMD are mystified by the mere consideration of NMD. Daniel Plesch, the director of the British-American Security Information Council, a security and defense issues research group, asserts, "With increased focus on creating a national missile defense system, the U.S. is no longer a reliable leader in the area of international legal controls on nuclear and other armaments. Its actions reinforce a steadily strengthening view against relying on mutual nuclear deterrence in national strategy."⁵⁴ More troubling is the message that this perceived lack of leadership sends to China and the weakening effect it could have on nonproliferation regimes and nuclear weapon-free zones.⁵⁵ It is hard to predict what, if any, impact the NMD policy battle will have on Pakistan and India, which are considering a moratorium on nuclear tests.⁵⁶ But the effect is unlikely to be positive.

In sum, U.S. flirtation with the idea of another Star Wars-like missile defense program provides Beijing and states of concern political cover for their proliferation activities. Further, it undermines U.S. credibility and leadership on nonproliferation issues.

Recommendations

The U.S. strategic goal is to impede the spread of nuclear weapons, technology, and missile delivery systems from China to states of concern. Additionally, U.S. interests are best served by the emergence of a strong, stable, open, and prosperous China.⁵⁷ The recommendations that follow support these goals. Recommendations are systematically presented in the context of ends, ways and means, and elements of national power. While the recommendations call for exploiting U.S. strengths, they are constructive. In general they do not call for exploiting China's weaknesses and vulnerabilities. Instead, they focus at the level of national (or grand) strategy.

General

The United States should retain the policy of comprehensive engagement with China to integrate further a freer, more prosperous China into the international community and to prevent the spread of nuclear weapons and related material and technology to states of concern. America, however, should redouble its efforts to implement the policy consistent with its declarations, something that has been lacking in U.S. policy implementation. Comprehensive engagement requires consistent and focused engagement and enforcement, which are the keys to successful policy. Engagement means that the United States should continue to develop a dialogue with the Chinese government and nonproliferation professionals. In doing so, U.S. officials should avoid mirror-imaging when engaging the Chinese.⁵⁸ Instead, America should attempt to understand better Chinese culture, values, and objectives, including their commitment to and timetable for reforms. Such a critically informed environment will provide truly comprehensive engagement and the realization of real progress toward the goal of ending Chinese nuclear proliferation.

The United States must avoid the appearance or fact of being a paper tiger on nuclear nonproliferation. Enforcement means that the United States must exercise the political will to discipline China informationally, politically, and economically in a global context, through multilateral and transnational economic and political institutions. America must do as President Ronald Reagan once said of nuclear arms control, quoting an old Russian proverb, "Trust, but verify."

China, as a member of the United Nations (UN) Security Council, is a major power. Therefore, the alternatives of threatening to use military force against and/or to contain China in support of nonproliferation

objectives are counterproductive, impractical, and contrary to encouraging a freer and more prosperous China. Further, such aggressive options do not advance U.S. nonproliferation goals. Military force and containment should be avoided if possible. The United States can call upon a host of other military, economic, and political ways and means.

Political

The United States must meet its security commitments to Taiwan without alienating China. It must continue to assuage Chinese security and sovereignty concerns through diplomacy by not recognizing Taiwan as an independent nation while reaffirming cooperative security arrangements with it. This will enhance both Taiwanese and Chinese perceptions and reality of security and help reduce China's motivation to proliferate. This strategy must be buttressed with public policy statements that solidify our friendship with all Chinese. Comprehensive dialogue is essential for guarding against the festering of sinister perceptions. For example, America should continue the modest scientific exchange between U.S. and Chinese national laboratories and nuclear technologists and between nongovernmental organizations and policy research institutions.

The United States should leverage international organizations to improve Chinese prestige and gain international support for its reforms commensurate with its cooperation with nonproliferation regimes and treaties. America's unprecedented standing provides it overwhelming power to ratify and legitimize agreements. China desires the referent power and influence that it can gain through cooperation with the United States, but the United States cannot court China in a vacuum. The United States should seek to reinforce its cooperative security agreements with the major players in South and East Asia to enhance the perceptions and reality of security, obviating the need for China's proliferation to Pakistan. Given its mixed record of cooperation, continuous diplomatic pressure must be applied to China both unilaterally and through transnational organizations to ensure that China meets its responsibilities to the nonproliferation regimes and treaties. Finally, America should leverage its informational and political power to persuade the Chinese people to choose democracy because, theoretically, "democracies do not go to war with other democracies."⁵⁹

Economic

The United States must move quickly to make permanent normal trade relations with China a reality to lessen China's need to traffic nuclear

and missile technology, a practice that currently provides needed hard currency. The annual approvals of trade relations were perfunctory and irritating to the Chinese. PNTR will pave the way for China's entry into the WTO, which in turn will further integrate China into the economic mainstream of the global market and speed domestic reforms, increasing China's stake in cooperating. PNTR will also improve China's economic prospects and give it access to international banking organizations, loan capital, and the world's largest trading partner. But trade policies should approach parity incrementally because of the asymmetries in size and efficiency of the economies involved. The United States can also provide China access to its strong and dominant bond market. Additionally, it should encourage its commercial banking institutions to share financial expertise and provide economic and legal education to improve China's fiscal policy and strengthen and reform its fragile banking institutions. The United States should share nuclear technology, hardware, and material slowly and commensurate with China's nonproliferation compliance. It should demand certification of China's export controls, but such demands must be broached carefully, since China is sensitive to its status as a world power. For either constructive or punitive purposes, it should also use its formidable economic influence in multilateral, transnational sanctioning bodies to moderate Chinese behavior. Only amid a general and deep economic crisis should debt forgiveness be considered. Similarly, the freezing of monetary assets, seizure of real property, and embargoes should be reserved only for those unlikely conditions in which a state of grave hostility exists between America and China.

Military

Shaping and responding are the two centerpieces of U.S. military strategy.⁶⁰ Forward-deployed conventional forces, force projection assets, and a visible blue-water Navy must continue to deploy in Asia to guarantee security, provide the backdrop for genuine engagement, and present a formidable deterrent. To allay Chinese security concerns, America should limit the deployment of TMD to East Asian states and abandon NMD deployment. It should also consider maritime TMD for Asia. Extensive Taiwan-based TMD would be particularly counterproductive, since China considers Taiwan a rogue province, and U.S. security assistance to Taiwan only serves to aggravate Chinese nationalism and paranoia. NMD deployment is too divisive and of dubious utility. The United States should alter its cooperative security agreements to be inclusive of China. However, separate cooperative security agreements with South Korea, Japan, and Taiwan should

remain in force over the next generation, when Chinese security, prosperity, and compliance are expected to improve. America should withhold strategic nuclear expertise, satellite and missile technology, and dual-use technology until Chinese compliance with nonproliferation regimes is confirmed. The United States should continue to engage in comprehensive signals intelligence, selected human intelligence, and close monitoring of Chinese immigrants, as long as China retains a formidable nuclear weapons capability. Military-to-military contact short of joint exercises with China will increase positive U.S.-China engagement, assuage fears and suspicion, and increase mutual understanding between the military establishments. Finally, engaging the Chinese on arms control is paramount. Therefore, despite China's charges of discrimination and hypocrisy, the United States should retain its nuclear deterrent through 2020, but not indefinitely. It must be willing to decommission a sizeable portion of its arsenal to lend credibility to the notion that someday it will eliminate all nuclear weapons.

Conclusions

Evidence indicates that Chinese compliance with nuclear nonproliferation regimes has been less than desired. The United States is partly to blame because it has neglected its security for the benefits of commerce and trade. In the hierarchy of a nation's interests, consideration of national and regional security reigns supreme. Nonproliferation of nuclear weapons, technology, and delivery systems should have primacy over trade concerns and business ties. But security and commerce are inextricably bound to one another, particularly in an era of increasingly globalized interaction and interdependence. Therefore, security and economic imperatives must be pursued concurrently to achieve an effective synergy. The optimum policy recognizes this symbiosis and requires long-term, consistent, but flexible implementation of the national security strategy. The required policy is comprehensive engagement.

Notes

1. The existence of Israel's nuclear weapon capability is widely accepted. However, it has never been confirmed or officially proclaimed by Israel.

2. Stephen J. Blank, *East Asia in Crisis: The Security Implications of the Collapse of Economic Institutions*, Conference Report. Washington, DC, July 9–10, 1998 (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2000), 20–21. The conference convened to assess the dangers posed by the economic crisis to Asian and U.S. security interests.

3. Mike Wallace, *60 Minutes*, September 3, 2000. Extended interview aired on C-SPAN, September 2000.

4. Rodney W. Jones and Mark G. McDonough, "An Overview of Global Trends," *Tracking Nuclear Proliferation: A Guide in Maps and Charts*, 1998 (Washington, DC: Carnegie Endowment for

International Peace, 1998), <<http://www.ceip.org/files/Publications/TrackingOverview.asp?p=8&from=pubauthor>>.

5. James R. Schlesinger, "Nonproliferation and U.S. Nuclear Policy," *The Washington Quarterly* 20, no. 3 (Summer 1997), 103–104.

6. Sanjoy Banerjee, "India-China War of Words: Titans Jockey for Power in South Asia," May 19, 1998, <<http://www.pacificnews.org/jinn/stories/4.10/980519-titans.html>>. India is perceived as China's "rival for power" in Southern Asia. See also Larry M. Wortzel, *China's Military Potential* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 1998), 14.

7. Jacob Abadi, "The Sino-India Conflict of 1962: A Test Case for India's Policy of Non-alignment," *Journal of Third World Studies* 15, no. 2 (Fall 1998), 11–29.

8. Banerjee.

9. Ibid.

10. Jing-dong Yuan, *Asia-Pacific Security: China's Conditional Multilateralism and Great Power Entente* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2000), 42–45.

11. Arthur C. Waldron, "The Kosovo War: Implications for Taiwan," in *People's Liberation Army after Next*, Susan M. Puska, ed. (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2000), 263.

12. Ibid., 262–263. For discussion of the "emergence of a civil-military dichotomy within China's leadership," see Andrew Scobell, "Show of Force: Chinese Soldiers, Statesmen, and the 1995–1996 Taiwan Strait Crisis," *Political Science Quarterly* 115, no. 2 (Summer 2000), 229. For information regarding China's plan to cut the proportionate share of defense in its gross national product, see Michael Pillsbury, *China Debates the Future Security Environment* (Washington, DC: National Defense University Press, 2000), 4.

13. Waldron, 259.

14. Ibid., 260.

15. Jones and McDonough. China formally condemned the NPT in 1968.

16. Mark K. Stokes, *China's Strategic Modernization: Implications for the United States* (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 1999), 10.

17. Paul Mann, "China's Record Better, Clintonites Contend," *Aviation Week and Space Technology* 147, no. 5 (August 4, 1997), 46. While China has not signed the MTCR, it has agreed to abide by it. China has also recently considered developing its own export controls and laws to parallel the requirements of the MTCR. See James Mann, "U.S. Takes New Tack On China Arms Exports," *Los Angeles Times* (October 5, 2000), 1.

18. Robert G. Joseph, "Nuclear Deterrence and Regional Proliferators," *Washington Quarterly* 20, no. 3 (Summer 1997), 172.

19. Schlesinger, 105.

20. Conference Report, U.S.-China Conference on Arms Control, Disarmament, and Non-Proliferation, Beijing, China, September 23–25, 1998, The Center for Non-Proliferation Studies, <<http://cns.miis.edu/cns/projects/eanp/beijing/index.htm>>.

21. Mitchel B. Wallerstein, "China and Proliferation: A Path Not Taken?" *Survival* 38, no. 3 (Fall 1996), 58.

22. Paul L. Leventhal and Eldon V.C. Greenberg, "The Renewal of Nuclear Trade with China: Legal and Policy Considerations," <<http://www.nci.org/ib112196.htm>>. Nuclear trade with China is prohibited unless three preconditions are met: unequivocal Chinese assurances, Presidential certification, and Presidential report of certification to Congress.

23. William J. Clinton, *A National Security Strategy for a New Century* (Washington, DC: The White House, 1999), 7. The NSS specifies the following nuclear nonproliferation policy imperatives: pursuit of verifiable arms control and nonproliferation agreements; provision of security necessary to strengthen and insure cooperative relationships; redirection of resources to safer, more productive endeavors; reaffirmation of previous U.S.-Russian strategic arms reduction talks (START I) and Russian ratification of START II; START III agreement to improve the transparency of inventories

and destruction of existing nuclear warheads; reaffirmation of the Anti-Ballistic Missile Treaty and the proposition of an amendment to authorize possible deployment of the National Missile Defense; realization of Senate advice and consent for the Comprehensive Test Ban Treaty to constrain nuclear weapons development and prevent explosions; promotion of the Nuclear Non-Proliferation Treaty; stronger controls over weapons-usable fissile material through the Nunn-Lugar Cooperative Threat Reduction Program; reinforcement of the international nuclear nonproliferation regime by strengthening the International Atomic Energy Agency safeguards system; limited access to sensitive technical information and equipment; implementation of coping strategies (counterproliferation; for example, military force in Iraq); and development of defensive capabilities to protect the United States and its allies from weapons of mass destruction.

24. Conference Report, Carnegie International Non-Proliferation Conference, Monterey, CA, March 16, 2000, <<http://ceip.org/programs/npp/richardson2000.htm>>.

25. Jed C. Snyder, "Tightening Up on the Spread of Nuclear Weapons," *The New York Times* (September 21, 1985), 27. This action set a precedent for "anticipatory self-defense" in international law.

26. Zachary S. Davis and Mitchell B. Reiss, "Nuclear Nonproliferation: Where Has the United States Won and Why?" in *Prevailing in a Well-Armed World: Devising Competitive Strategies Against Weapons Proliferation*, ed. Henry D. Sokolski (Carlisle, PA: U.S. Army War College Strategic Studies Institute, 2000), 90. Iraq is the only example of U.S. counterproliferation. Even this instance of use of military force was precipitated by Iraq's invasion of Kuwait and not nuclear weaponization.

27. Davis and Reiss, 81.

28. Clinton, 8–9. De-nuclearization of the Newly Independent States was officially effected with the NPT, the Nunn-Lugar Cooperative Threat Reduction Program, and the Expanded Threat Reduction Initiative, 1999.

29. In spring 1998, during a period of heightened border tensions, India conducted a nuclear explosion as part of developmental testing. Pakistan followed suit with a test explosion of its own. Prevailing news reports and commentaries consider these explosions to be acts of intimidation rather than developmental exercises. Both Pakistani and Indian nuclear weaponization are in a nascent stage of development.

30. Peter Tarnoff, testimony before the House International Relations Committee on Asia and the Pacific, Subcommittee on International Economic Policy and Trade, Washington, DC, May 16, 1996, <<http://www.state.gov/www/current/debate/516tarnf.html>>.

31. Samuel R. Berger, testimony, Carnegie Non-Proliferation Conference, Washington, DC, January 12, 1999, <<http://www.usembassy-israel.org.il/publish/armscontrol/archive/1999/january/aco0112b.shtml>>. The Clinton administration established the position of National Coordinator for Security, Infrastructure Protection and Counter-terrorism. The administration created a National Office of Domestic Preparedness, was readying National Guard units for biochemical threats, and was creating the first civilian stockpile of medicines to meet domestic biochemical threats. Another U.S. priority is accelerating theater missile defense systems for Israel and Japan. U.S. efforts include seeking modification of the ABM Treaty to obtain agreement for its limited national missile defense system.

32. *Ibid.*

33. Among these agreements were the International Atomic Energy Agency (1984), the Convention on the Physical Protection of Nuclear Material (1984), the NPT (1992) and its indefinite extension (1995), the Missile Technology Control Regime (1992), and Comprehensive Test Ban Treaty (1996).

34. Bill Gertz, "China Fails to Keep Vows on Arms Sales, Senate Report Says," *Washington Times* (September 12, 2000), 12. Rogue states are Iran, Iraq, Libya, North Korea, Pakistan, and Syria.

35. Jones and McDonough, Appendix F. The Non-Proliferation Treaty Exporters Committee was established in the early 1970s for the export control provisions of Article III (2) of the Nuclear Non-Proliferation Treaty. This committee adopted a set of guidelines and a "trigger list of export items whose sale would be permitted only to recipients willing to accept IAEA safeguards."

36. Berger.

37. Conference Report, Conference on Individuals, Institutions, and Policies in the Chinese Non-Proliferation and Arms Control Community, Monterey, CA, November 6–9, 1997, <<http://cns.miis.edu/cns/projects/eanp/pubs/1197conf.htm>>.

38. Leventhal and Greenberg. The NSG members have committed to a set of guidelines incorporating such important nonproliferation standards as full-scope IAEA safeguards as a condition of supply, physical protection against unauthorized use of transferred equipment and materials, and restraint in the transfer of sensitive facilities, technology, and weapons-usable material. U.S. policy seeks universal adherence to the NSG guidelines.

39. Zachary S. Davis, “China’s Non-Proliferation and Export Control Policies,” *Asian Survey* 35, no. 6 (June 1995), 588.

40. Center for Non-Proliferation Studies, Monterey, CA, <<http://cns.miis.edu/cns/projects/eanp/fact/cbmprol.htm>>.

41. Paul Leventhal and Daniel Horner, “Proliferation: Show China We Mean Business,” *The Washington Post*, June 14, 1996, <<http://www.nci.org/a61496.htm>>.

42. Gertz. The Thompson-Torricelli amendment to the Permanent Normal Trade Relations (PNTR) Bill makes PNTR contingent upon certifications and verification and calls for financial sanctions for violations.

43. Leventhal and Horner.

44. Unsafeguarded plants are those that are closed to international inspections and audits or “safeguards.”

45. Evan S. Medeiros and Bates Gill, *Chinese Arms Exports: Policy, Players, and Process* (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2000), viii, 11.

46. Jones and McDonough.

47. Andrew Scobell, Interview at Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA, October 16, 2000. A case may be made that the Chinese government has had difficulty reining in its vast array of competing bureaucratic entities and actors. The question is, “How committed is the Chinese government to controlling its military and its state enterprises?” See also Leventhal and Horner. Department of State spokesperson Nicholas Burns has claimed that the Chinese lack of awareness about the ring magnet sale to Pakistan “strains credulity.”

48. Leventhal and Greenberg.

49. Conference Report, Monterey, CA, November 6–9, 1997.

50. Mann, 46.

51. Conference Report, Monterey, CA, November 6–9, 1997.

52. Waldron, 274. Chinese author Wang Xiaodong is quoted as stating, “We must strengthen our nuclear capability. . . . We need much more weapons of mass destruction which can reach cities in North America.”

53. Stephen I. Schwartz, “Outmaneuvered, Outgunned, and Out of View,” *Bulletin of the Atomic Scientists* 56, no. 1 (January/February 2000), 31.

54. Daniel Plesch, “Anarchy in Action: Western Policy on Weapons of Mass Destruction,” <http://www.basicint.org/nuk_anarchyinaction.htm>. BASIC is an independent research organization that analyzes government policies and promotes public awareness of defense, disarmament, military strategy, and nuclear policies to foster informed debate.

55. “In Test Ban Vote, Washington’s Role as Moral Leader Takes a Hit,” *International Herald Tribune* (Neuilly-sur-Seine, France) by the New York Times News Service, October 15, 1999, News section, 8. See also Conference Report, International Conference in Vienna, Austria, <<http://clw.org/pub/clw/coalition/kyl100899.htm>>. Conference participants lamented that three of the world’s nuclear-capable nations, including the United States, have not ratified the CTBT, giving 15 other nations “less incentive to ratify” as well. U.S. partisan politics (conservative intransigence) is cited as the primary reason.

56. Jones and McDonough.

57. Tarnoff.

58. Mirror imaging denotes the belief that prior assumptions and prejudices have been validated by apparently receptive Chinese counterparts.

59. Robin Dorff, "Causes of War: States, Culture and Social Causes," War, National Policy, and Strategy, Course Curriculum (Carlisle, PA: U.S. Army War College, Department of National Security and Strategy), 21. Original sources: Immanuel Kant, *Perpetual Peace* (New York: Macmillan, 1917) and Seyom Brown, *The Causes and Prevention of War* (New York: Bedford/St. Martin's Press, 1994), 65, 75–81.

60. John M. Shalikhshvili, *National Military Strategy* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 1999), 11.

The 20th Annual Competition

On May 17 and 18, 2001, the National Defense University convened a panel of judges at Fort Lesley J. McNair in Washington, DC, to evaluate the entries in the 20th annual Chairman of the Joint Chiefs of Staff Strategy Essay Competition. The 2001 judges were:

Kamal A. Beyoghlou, Marine Corps Command and Staff College
Lieutenant Colonel James Jay Carafano, USA, Institute for National Strategic Studies

Charles C. Chadbourn III, Naval War College

John C. Hodell, Naval War College

Mark H. Jacobsen, Marine Corps Command and Staff College

Richard A. Melanson, National War College

James A. Mowbray, Air War College

Patricia S. Pond, U.S. Army War College

Paul M. Severance, Industrial College of the Armed Forces

Colonel Frederick R. Strain, USAF, Air War College

Colonel Robert H. Taylor, USA (Ret.), U.S. Army War College

Lieutenant Colonel Robert M. Toguchi, USA, National War College

The four winning essays are published in this volume, *Essays 2001*. The winning authors were presented with certificates signed by the Chairman, as well as gift certificates for books of their choice, provided through the generosity of the National Defense University Foundation.

The 2001 competition was administered by Robert A. Silano, Director of Publications and Editor of *Joint Force Quarterly*, in the Institute for National Strategic Studies, with the assistance of William R. Bode, General Editor, NDU Press, and George C. Maerz, Jeffrey D. Smotherman, and Lisa M. Yambrick, members of the editorial staff of NDU Press.

A complete list of the entries in the 2001 competition follows.

Air War College

Lieutenant Colonel Harry W. Conley, USAF, *Not with Impunity: Assessing U.S. Policy for Retaliating to a Chemical or Biological Attack*

Lieutenant Colonel Mark E. Garrard, USAF, *War Termination in the Persian Gulf: Problems and Prospects*

Colonel Roman N. Hrycaj, USAF, *Guiding the United States Government Response to an Overseas Chemical, Biological, Radiological, or Nuclear Disaster*

Lieutenant Colonel Robert E. Rehbein, USAF, *"Managing" Proliferation in South Asia: A Case for Assistance to Unsafe Nuclear Arsenals*

Lieutenant Colonel Gary C. Webb, USAF, *Between Iraq and a Hard Place: Fighting Guerrilla Warfare in the Air*

Air Command and Staff College

Major Jeffrey T. Butler, USAF, *UAVs and ISR Sensor Technology*

Major Michael A. Carlino, USA, *On Some of the Moral Limits Regarding Strategic Attack*

Marine Corps War College

Lieutenant Colonel Richard R. Ayres, USAF, *Dangerous Information: The Misuse of Information Capabilities in Command and Control*

Lieutenant Colonel C.L. Hudson, USMC, *Chechnya: An Analysis of the Russian Strategic Decision Making Process*

Zachary Z. Teich, U.S. Department of State, *Primacy: Grand Strategy for a Second American Century*

National War College

Colonel Drew A. Bennett, USMC, *The Navy's Use of Special and Incentive Pays: Sailing Away from Jointness*

Lieutenant Colonel Mark A. Bucknam, USAF, *The Eisenhower Administration and the Suez Crisis: Spying on Allies and Friends*

Olivier C. Carduner, U. S. Agency for International Development, *Values as a Strategic Constraint: How Cultural Values Undermine U.S. Foreign Policy in Colombia*

Captain Mel Ferguson, USN, *The Role of Ethics in U.S. Military Humanitarian Intervention*

Lieutenant Colonel Michael W. Isherwood, USAF, *Avoiding Vertigo: Building a New Strategic Foundation*

David Leatherwood, Defense Intelligence Agency, *The Hazards of Strange Bedfellows: The United States, Nigeria, and Peacekeeping in West Africa*

- Lieutenant Colonel Kathleen A. Mahoney-Norris, USAFR, *Huntington Revisited: Is Conservative Realism Still Essential for the Military Ethic?*
- Lieutenant Colonel John N.T. Shanahan, USAF, *Shock-Based Operations: New Wine in an Old Bottle*

Naval War College

- Lieutenant Commander Steven M. Barney, USN, *Innocent Packets? Applying Navigational Regimes from the Law of the Sea Convention by Analogy to the Realm of Cyberspace*
- Major Russell Bodine, USA, *Expanding SPACECOM's Role in National Cyber Defense*
- Lieutenant Commander W. Scott Gureck, USN, *Network-Centric Warfare and Complex Humanitarian Emergencies, Meet Napster!*
- Lieutenant David T. Lee, USNR, *Humanitarian Intervention to Stop Genocide*
- Major Donald C. Locke, Jr., USAF, *Psychological Factors and the Enemy Leader: Can Information Be Used to Facilitate Surrender?*
- Commander Charles J. Logan, USN, *Engaging Iran: Options for the New Administration*

U.S. Army War College

- Colonel Marc R. Bertucchi, French Army, *U.S. National Missile Defense (NMD) and European Security*
- Lieutenant Colonel Kevin M. Dietrick, USA, *Whence the Army's Role in Space?*
- Lieutenant Colonel Wanda L. Good, USA, *The Damascus Paradox: The Code of the Warrior—The Kinder, Gentler Army*
- Commander David P. Gorman, USN, *Increasing the Adaptability of DOD Forces and Organizations*
- Lieutenant Colonel Roy C. Howle, Jr., USA, *An Evitable War: Engaged Containment and Defining Moments in the U.S.-China Relationship*
- Colonel Kurt A. McNeely, USA, *Agricultural Terrorism: Breaking New Ground*
- Lieutenant Colonel Nathaniel H. Sledge, Jr., USA, *Broken Promises: The United States, China, and Nuclear Nonproliferation*
- Colonel Richard Wilson, Australian Army, *Australia's Defence Review 2000: A Step in the Right Direction*

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