

②

DTIC
~~RESTRICTED~~
 6



Distribution For
 Mr. Tolson ✓
 Mr. Boardman ✓
 Mr. Nichols ✓
 Mr. Belmont ✓
 Mr. Ladd ✓
 Mr. Clegg ✓
 Mr. Glavin ✓
 Mr. Rosen ✓
 Mr. Tracy ✓
 Mr. Harbo ✓
 Mr. Mohr ✓
 Mr. Winterrowd ✓
 Tele. Room ✓
 Mr. Holloman ✓
 Miss Gandy ✓
 by _____
 Date _____
 5 - Bureau of Prisons
 1 - Federal Penitentiary
 1 - District Attorney
 1 - Special Agent

A-1

by

JAMES J. TRITTEN

May 13, 1991

91-01052



Approved for public release; distribution is unlimited

Prepared for:
Director, Net Assessment and
Competitive Strategies Office
and Strategic Planning Branch
Office of the Secretary of Defense
Washington, DC 20301

Defense Policy Office
National Security Council
Staff
Washington, DC 20506

Defense Nuclear Agency
HQ DNA/NASF
6801 Telegraph Road
Alexandria, VA 22301



NATIONAL SECURITY AFFAIRS
Monterey, California

Rear Admiral Ralph W. West, Jr.
Superintendent

Harrison Shull
Provost

The research reported here was sponsored by the Director, Net Assessment and Competitive Strategies Office and Strategic Planning Branch, Office of the Secretary of Defense, Washington, DC; the Defense Policy Office, National Security Council Staff, Washington, DC; and the Defense Nuclear Agency HQ DNA/NASF, Alexandria, VA.

Reproduction of all or part of this report is authorized.

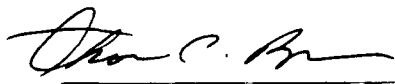
This report was edited by:



JAMES J. TRITTEN
Associate Professor
Department of National Security Affairs

Reviewed by:

Released by:



THOMAS C. BRUNEAU
Professor and Chairman
Department of National Security Affairs



PAUL J. MARTO
Dean of Research

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b RESTRICTIVE MARKINGS	
2a SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT	
2b DECLASSIFICATION/DOWNGRADING SCHEDULE			
4 PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-NS-91-003A		5 MONITORING ORGANIZATION REPORT NUMBER(S)	
6a NAME OF PERFORMING ORGANIZATION Naval Postgraduate School	6b OFFICE SYMBOL (If applicable) Code NS	7a NAME OF MONITORING ORGANIZATION	
6c ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5100		7b ADDRESS (City, State, and ZIP Code)	
8a NAME OF FUNDING/SPONSORING ORGANIZATION Director, Net Assessment	8b OFFICE SYMBOL (If applicable) OSD/NA	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER MIPR DDWAM00035, 90005, 90038	
8c ADDRESS (City, State, and ZIP Code) Office of the Secretary of Defense Washington, DC 20301		10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO PROJECT NO TASK NO WORK UNIT ACCESSION NO	
11 TITLE (Include Security Classification) AMERICA PROMISES TO COME BACK: A NEW NATIONAL STRATEGY			
12 PERSONAL AUTHOR(S) JAMES J. TRITTEN			
13a TYPE OF REPORT FINAL	13b TIME COVERED FROM SEP 90 TO MAY 91	14 DATE OF REPORT (Year, Month, Day) May 13, 1991	15 PAGE COUNT 135
16 SUPPLEMENTARY NOTATION The views expressed in this paper are those of the author and do not reflect the official policy or position of the DoD or the U.S. Government.			
17 COSATI CODES FIELD GROUP SUB-GROUP		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number) National Security Strategy Aspen Strategy Base Force	
19 ABSTRACT (Continue on reverse if necessary and identify by block number) Additional Funding/Sponsor: Defense Nuclear Agency, HQ/DNA/NASF, 6801 Telegraph Road, Alexandria, VA 22301, MIPR 90-581. Additional Sponsors: Competitive Strategies Office and Strategic Planning Branch within OSD and Defense Policy Office, National Security Council Staff. This is an updated version of original report issued December 26, 1990. A slightly revised version will appear in issue #2 of <u>Security Studies</u> (July 1991). Provides an analysis of President Bush's new national security strategy first unveiled in Aspen, Colorado on August 2, 1990, involving a mix of active, reserve, and reconstitutable forces, and General Colin Powell's "base" force. If implemented, the new strategy and force structure would return a significant amount of U.S. ground and air forces to the continental U.S. where most would be demobilized. In the event of a major crisis, the U.S. would rely on active and reserve forces for a contingency response much the same as has been done for Operation DESERT SHIELD. The new strategy is based			
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
22a NAME OF RESPONSIBLE INDIVIDUAL JAMES J. TRITTEN		22b TELEPHONE (Include Area Code) (408) 646-2143	22c OFFICE SYMBOL NS/TR

6. Abstract

upon a revised Soviet threat and new international security environment which allows us to assume two years warning of a major ground war in Europe. During this two year period, the U.S. would reconstitute additional military capability. Outline of all sources of new strategy and force structure, the "base" force, transportation requirements, and whether or not the U.S. will retain a unilateral capability for overseas intervention. Discussion of parallel NATO initiatives. Discussion of major issues resulting from this new proposed strategy and force structure, including: is the new strategy real, defining new goals and objectives in both programming and war planning, the effect of Operations DESERT SHIELD and DESERT STORM, new requirements for intelligence, requirements for decision-making, setting technological requirements, research & development, investment strategy and industrial conversion, reconstitution, stockpiles, impact upon DoD organization, a transition period, arms control, and new requirements for military operations research and analysis. Concludes that there are four major critical factors upon which the new strategy depends; (1), the behavior of the USSR, (2), the behavior of allies and the Congress, (3), the ability of the intelligence community to meet new challenges, and (4), the ability of industry to meet new demands. Concludes that even if it can be shown that industry cannot meet new demands, the strategy may still be useful. Section on specific impact on the Navy. The new strategy is not simply an adjustment to existing defense doctrine or strategy but rather a fundamental revision to the way the U.S. has approached defense since 1945.

1

AMERICA PROMISES TO COME BACK: A NEW NATIONAL STRATEGY

by
James J. Tritten

NPS-NS-91-003A
May 13, 1991

TABLE OF CONTENTS

Sources of the New Strategy.....	3
The President's New National Security Strategy.....	11
The "Base" Force.....	19
The Strategic Force.....	20
The Atlantic Force.....	22
The Pacific Force.....	25
The Contingency Force.....	27
Transportation.....	32
Unilateral Capability?.....	35
NATO Initiatives.....	38
The Soviet Threat.....	44
Issues For Discussion.....	54
Is the New Strategy Real?.....	54
Defining Goals & Objectives in Programming & War Planning	58
Impact of Operations DESERT SHIELD and DESERT STORM.....	66
New Requirements for Intelligence.....	69
Requirements for Decision-Making.....	73
Technological Requirements.....	83
Research & Development.....	87
Investment Strategy and Conversion.....	89
Reconstitution.....	93
Stockpiles.....	101
DoD Organization.....	103
The Transition Period.....	106
Arms Control.....	108
Military Operations Research and Analysis.....	109
Critical Success Factors.....	112
Impact on the Navy.....	116
Defense Business as Usual?.....	129
Notes.....	136

AMERICA PROMISES TO COME BACK: A NEW NATIONAL STRATEGY

by

James J. Tritten¹

President George Bush unveiled a new national security strategy for the United States in his August 2, 1990 speech at the Aspen Institute.² In the audience was Britain's former Prime Minister Margaret Thatcher. Although Mr. Bush remarked about the United States and United Kingdom "standing shoulder to shoulder," and "when it comes to national security, America can never afford to fail or fall short," the national security strategy concepts he unveiled at Aspen would be **revolutionary** and have direct and dramatic impacts on NATO and the rest of the world.

Essentially, the President opened the door to a **total** reexamination of America's role in the world and its overall military capability. The historical parallel is the British reorientation in the first decade of the 20th Century from strategic focus on colonies to Europe. As Clausewitz wrote, war has ". . . its own grammar, but not its own logic."³ The old political logic of the Cold War has changed - it is now time to change the military grammar.

U.S. defense policy will be based upon four major elements: deterrence, forward presence, crisis response, and reconstitution. Rather than deploy forces at the levels maintained since World War II, under this new national security strategy the United States would maintain a much smaller active and reserve force mix primarily focused on world-wide major contingency

operations -- not a Europe-centered global war with the USSR. If forces were required to fight a major war against the Soviet Union, the U.S. assumes that there would be sufficient time to reconstitute them. Specifically, the President has apparently accepted the consensus of his intelligence community that the Soviet Union would need "at least one to two years or longer to regenerate the capability for a European theater-wide offensive or a global conflict."⁴ The U.S. will, therefore, have two year's warning for a Europe-centered global war with the USSR.

Sources of the New Strategy

Rather than having a single or even a few documents that we can refer to understand the new national security strategy and the associated force structure, there are a series of speeches, articles, and reports that must be consulted if one is to get the complete story. To properly understand these documents, one must read them in sequence in order to see how the concepts evolved over time. Due to publication dates differing from dates that some articles were actually written, it is necessary to place them in proper chronological sequence. This section will provide the reader with the proper chronology and full documentation for all primary source documents.

The sequence starts with the President's speech at Aspen on August 2, 1990. Generally ignored by media due to Iraq's invasion of Kuwait on the same day, the concepts outlined in the President's Aspen speech were brief and visionary - destined to be fully developed by official spokesmen in the following months. The New York Times covered the new strategy and force structure in depth on the same day, but based its story on leaks of a confidential briefing of the plan to the President in late June, and subsequent briefings to the Defense Policy Resources Board (DPRB).⁵ Aviation Week & Space Technology covered the new national security strategy and force structure in depth as well - in their August 13, 1990 issue.⁶

General Colin L. Powell, U.S. Army, Chairman of the Joint Chiefs of Staff (JCS), provided details on the new national security strategy and associated force structure in two speeches to the Veterans of Foreign Wars (VFW)⁷ and the American Legion⁸ late in August. Secretary of Defense Dick Cheney, spoke at the 32nd Annual Conference of the International Institute for Strategic Studies (IISS) on September 6th, and explained that the new strategic concepts outlined in Aspen would form the basis of programming documents to be made public in early 1991.⁹ Cheney noted that a series of Congressional and other briefings were to have followed the Aspen speech, but that he and General Powell were only able to meet once, on August 2nd, with the chairman and ranking members of the four major Congressional armed services committees.

Moscow's Pravda, reported Cheney's remarks at the IISS meeting and that President Bush had ordered changes in American security strategy.¹⁰ Cheney followed up his IISS address with a similar speech at the Comstock Club/Air Force Association (AFA) in Sacramento on September 13,¹¹ at the Bay Area Council in San Francisco on September 14,¹² another briefing to AFA on September 17th, an address to the National Association of Business Economists on September 26th, and a talk to the Pittsburgh World Affairs Council on October 30th.¹³

The former Joint Staff Director for Strategic Plans and Policy (J-5), Lieutenant General George Lee Butler, U.S. Air Force, gave additional detailed information late in September at

the National Press Club.¹⁴ The essence of this speech appears subsequently in the Spring 1991 issue of Parameters,¹⁵ the journal of the U.S. Army War College. From the substance contained in General Butler's address and article, it appears that he had a major hand in the development of the new national security strategy or force structure.

Secretary Cheney's visit and remarks in Moscow this past October about the new national security strategy and future force structure were widely covered by the Soviet press¹⁶ but generally not reported in the U.S. General Powell had an article in the October 1990 issue of The Retired Officer.¹⁷ This article, however, is based upon his presentation at the National Press Club in the days immediately preceding the Iraqi takeover of Kuwait -- hence it should actually be placed ahead of the Aspen speech. Similarly, General Powell's February 1991 article in the magazine of the Reserve Officers Association¹⁸ should be read from the perspective of currency through October.

General Powell gave two December 1990 speeches: one to the Royal United Services Institute for Defence Studies (RUSI)¹⁹ and the other at the Armed Forces Communications and Electronics Association (AFCEA).²⁰ The Chairman's RUSI remarks also appear in the Spring 1991 issue of The RUSI Journal but these should be read assuming a December 1990 currency with superficial updating only for the obvious.²¹

Vice Chairman of the JCS, Admiral David E. Jeremiah, U.S. Navy, echoed General Powell's concepts in another December speech to the President's National Security Telecommunications Committee (NSTAC).²² The Commander-in-Chief (C-in-C), U.S. Space Command, General Donald J. Kutyna, U.S. Air Force, told a San Diego Space Day audience in January, 1991 that General Powell had asked each of the C-in-Cs to examine their forces and explain that minimal "base" force structure necessary to maintain our superpower status.²³

Only limited commentary about the new national security strategy or force structure appeared in the U.S. media,²⁴ other than in the previously mentioned reports in the New York Times and Aviation Week & Space Technology, until the February Department of Defense (DoD) testimony to Congress. The U.S. press had been otherwise engaged in major defense-associated reporting of events in the Middle East. In 1991, the testimony to the Congress by the Secretary of Defense and the Chairman of the JCS actually preceded the delivery of the annual DoD report to the Congress.

The first testimony was by the Secretary of Defense and the Chairman of the JCS before the House Armed Services Committee (HASC) on February 7, 1991.²⁵ Their second testimony was before the House Appropriations Committee on February 19th.²⁶ Two days later, on February 21st, they gave testimony before the Senate Armed Services Committee (SASC).²⁷ Following this testimony, the 1991 Secretary of Defense Annual Report to the President and the

Congress was actually issued, although it is dated January.²⁸ This report specifically addresses the new national security strategy and provides a force structure that is designed for budgetary and political give and take. For those that had still not yet understood that strategy and force structure were changing, a copy of the President's Aspen speech was provided as an annex.

In mid-March, "Scooter" Libby, the Principal Deputy Undersecretary of Defense (Strategy and Resources)²⁹ and Admiral Jeremiah³⁰ appeared before the HASC and provided the first UNCLASSIFIED details on future force structure. Later in March, Secretary Cheney prepared an address regarding the new national security strategy for delivery at the Georgetown University.³¹ By the end of March, the Joint Chiefs of Staff issued their 1991 Joint Military Net Assessment (JMNA) which includes a Foreword by the Secretary.³² On April 3, General Powell once again addressed the new national security strategy and force structure in an address to the American Defense Preparedness Association (ADPA).³³ Powell also made some remarks to Army Times on reorganization in mid-April.³⁴ Finally, the Chairman of the JCS made the "base" force the centerpiece of his testimony before the Defense Base Closure Commission at the end of April.³⁵

A number of things stands out, by reviewing the list of primary source documents. The first is that this appears to be a very "top-down" re-direction in defense strategy and force struc-

ture. From the public record, it appears that there were a handful of individuals that orchestrated the new concepts and that there were only a few authorized spokesmen.³⁶ The usual indicators of a debate are absent - discussion by other senior military officials does not appear until well after the new concepts have been articulated in public.

The second item that stands out is that despite their obvious concern with Operations DESERT SHIELD and DESERT STORM, the Secretary of Defense and the Chairman of the JCS were simultaneously working the new national security strategy and force structure. The Secretary has stated repeatedly that there were two major things happening with defense in late 1990 and early 1991 - the military buildup in Saudi Arabia and the new national security strategy and force structure. Dick Cheney and General Powell were two of only a few people that apparently managed to stay involved in both.

A third matter that stands out is that the new national security strategy does not have a name. Inside the Washington beltway, the strategy is known as the "new strategy" or the "President's strategy." The strategy has also been referred to, informally, as the "Aspen Strategy," the "reconstitution strategy," and the "strategy for the new world order," but it appears that the Administration will let academia, or the press, select the title that will appear in the history books. For the purposes of this paper, the strategy is uniformly referred to as the "new national security strategy."

Although it has taken some time, the new national security strategy and force structure are now appearing in the testimony and writings of others in the Pentagon. For example, Christopher Jehn, Assistant Secretary of Defense (Force Management and Personnel) appeared before Congress on April 9th and used General Powell's concept of four force package with four supporting capabilities.³⁷ Similarly, Deputy Secretary of Defense Donald Atwood expanded upon the Aspen speech in his address to the American Institute of Aeronautics and Astronautics (AIAA) on May 1st.³⁸

Air Force Chief of Staff, General Merrill A. "Tony" McPeak, made public reference to consolidating air forces into the new "base" force structure.³⁹ The U.S. Army Posture Statement reflects a thorough understanding and support of the new national security strategy.⁴⁰ Similarly, the Secretary of the Navy, Chief of Naval Operations (CNO), and Commandant of the Marine Corps authored an article in the April 1991 U.S. Naval Institute Proceedings that make specific mention of the Aspen speech and the new national security strategy.⁴¹ The CNO also made specific reference to the Aspen speech and strategy in his April Sea Power article.⁴²

By the beginning of May, sufficient details of the President's new strategic concepts were available to make an in-depth assessment of the new national security strategy's impact. The

one major document that has not yet appeared is the White House's 1991 issue of the National Security Strategy of the United States. This document will need to be evaluated for differences from what has been published elsewhere.

Perhaps one of the reasons that this document has not yet appeared and the strategy lacks a formal name is that the internal debate and discussion within the Administration has not yet ended. Rather than a "bottom-up" product of endless hours of staff work involving all the major defense and industrial participants, the new national security strategy is very much in the model of recent shifts in military doctrine in the USSR - with perhaps even more debate in the USSR that has yet occurred in the United States.

The President's New National Security Strategy

The major factor underlying the reexamination of America's role in the world, and basic national security strategy, is the recognition by the Congress and the Administration that the level of resources devoted to defense in the last decade cannot be sustained.⁴³ If the United States consciously attempted to outspend the Soviet military in a competitive strategy designed to bankrupt the Soviet economy, then the strategy succeeded. Unfortunately, American defense spending contributed to, but is not a principal cause of, the U.S. budgetary deficit.

American defense spending will apparently be reduced on the order of 25% under the new national security strategy and the "base" force. This reduction is not simply the low end of a periodic cycle of fluctuating defense expenditures -- it is a recognition that the total amount of resources devoted to defense need not be as high as long as the current political climate remains with us.

Another fundamental component of the President's new national security strategy is that, assuming a two years warning of a Europe-centered global war with the USSR, the U.S. can generate wholly new forces - to rebuild or "reconstitute" them if necessary. Specifically, current forces deemed unnecessary, will be disbanded, not put into the reserves, since the risk is deemed acceptable.

Reconstitution is not the same thing as mobilization or regeneration - it is more like what the United Kingdom had planned during the 1930s when it assumed that up to ten years of strategic warning would be available. New defense manufacturing capability and new forces and military would be built; essentially from the ground floor up. Preserving this capability will mean protecting our infrastructure and the defense industrial base, preserving our lead in critical technologies, and stockpiling critical materials. Preserving our alliance structure is another element of our ability to reconstitute a more significant forward-based military presence when, and if, it is ever again required.

Secretary Cheney said shortly before his departure from Moscow in October, that "We are changing our strategy and our doctrine as a result of changes in the Soviet Union and changes in Europe. We no longer believe it is necessary to us to be prepared to fight a major land war in Europe. . . ." The shift in focus from the Soviet threat and a European centered global war is a major change in both program and war planning. We will justify why we procure defense programs for reasons other than those routinely used since the end of World War II. We will also need to immediately review existing war and contingency plans to see if they are responsive to the new political realities.

The estimated two-year warning is predicated upon the assumptions that all Soviet ground and air forces will withdraw to the homeland, that a Conventional Armed Forces in Europe (CFE)-

like parity will exist from the Atlantic to the Urals, that the Soviet Union will remain inwardly focused, and that NATO and its member states intelligence apparatus are functioning. After events in the Soviet Union this past Winter, Secretary Cheney took a more cautious note on expected Soviet behavior in his testimony to the House Appropriations Defense Subcommittee on February 19th and in subsequent discussions and reports.

Cheney told the Congress, after mid-February, that the Administration was disturbed at events in the USSR and that they reserved the right to come back before Congress and change the assumptions that underlay the new national security strategy and "base" force and therefore the programs that were requested from the Congress. In his February 21st SASC written statement, General Powell tied the removal of a "short-warning attack by massive Soviet conventional forces" to the ratification of the CFE Treaty. In the meantime, Soviet forces are being withdrawn to the homeland, conventional arms control agreements have been signed drawing forces down drastically, and the USSR remains inner-focused.

Another area of emphasis in the new national security strategy is emphasis on technological breakthroughs that will change military art. Secretary Cheney first addressed this in his February remarks to the SASC. Changes in military art occurred during the inter-war years with the development of *blitzkrieg*, carrier-based strike naval air, and amphibious warfare

capabilities. The Soviet military has long discussed the "Revolution in Military Affairs" that occurred after World War II and the advent of nuclear weapons and long-range means of delivery. Senior Soviet military officers have been warning of another "revolution" in the near future.⁴⁴ After the performance of U.S. weapons during Operation DESERT STORM, it appears that their worst fears were justified.⁴⁵ The coming revolution will present enormous challenges and opportunities in the area of doctrinal and strategy development.

One of General Powell's more frequent themes in his writings and speeches over the past year has been that of enduring realities and emerging defense needs. Under the category of enduring reality, the Chairman lists Soviet military power, vital interests across the Atlantic, in Europe and the Middle East, and in the Pacific, and the unknown threat - the crisis that no one expected. The new national security strategy and the associated "base" force are designed to meet these needs by providing a less Soviet/European-centered and more flexible military capability which will meet America's security requirements as we enter the next Century.

The cornerstone of American defense strategy will remain deterrence of aggression and coercion against the U.S. and its allies and friends. Deterrence is achieved by convincing a potential adversary that the cost of aggression, at any level, exceeds any possibility of gain. To achieve this goal, the U.S.

will continue its modernization of strategic nuclear forces and associated command, control, and communications capabilities.

The U.S. nuclear deterrence strategy will remain committed to fostering nuclear stability, where no nation feels the need to use nuclear weapons in a first-strike. The U.S. remains committed to improving its strategic nuclear defensive capabilities. One new area for strategic nuclear warfare will be to respond flexibly to lower levels of aggression. Strategic defenses can be effective in countering the growing threat of ballistic missiles from nations other than the USSR.

Deterrence is often thought to only involve nuclear weapons, but under the new national security strategy, we should expect to see further investigation of the deterrence of conventional warfare without the explicit threat to use nuclear weapons. Other major elements of the new national security strategy include forward presence, crisis response and collective security. Although the strategy acknowledges solidarity with existing allies, the U.S. is likely to have enduring interests with perhaps more future ad hoc coalitions and friends than inflexible alliances. Such coalitions or allies are vital for the reintroduction of formidable amounts of American military power overseas.

There is a risk that the end of the Cold War may bring an increased risk of regional conflicts and a greater degree of unpredictability in the international security environment.

Today's crises are extremely dangerous due to the proliferation of advanced weaponry and weapons of mass destruction and the demonstrated willingness of Third World nations to use them. General Powell reminded Congress in February about Operation DESERT STORM where: "We are clearly at the 'high end' of technology in a conflict with a so-called 'Third World' nation."

High technology weapons in the hands of Third World nations include: modern tanks, ballistic missiles and artillery, air defenses, tactical air forces, cruise missiles, and diesel submarines. All of this makes conflict in the Third World increasingly destructive and lethal. U.S. crisis response forces will provide presence with the ability to reinforce with sufficient forces to prevent a potentially major crisis from escalating or to resolve favorably less demanding conflicts.

For ease of budget discussion, the U.S. often has used an illustrative planning scenario. Any planning for contingency responses by the U.S. should include the ability to react to more than one "canned" predicament or a single scenario. The JCS have now developed a family of likely (and perhaps even unlikely) events for which the U.S. may elect to commit military forces.

The conventional conflict scenarios now used by the JCS are contained in this year's JMNA. They range from peacetime engagement to war escalating from a European crisis with full mobilization. Contingencies include: (1) counter-insurgency/counter-

narcotics; (2) lesser regional contingencies, with two sub-cases (2,000 and 6000 nautical miles from the U.S.); (3) a major regional contingencies in Korea; and (4) a major regional contingency in Southwest Asia.

The JCS recognize that not all crises will evolve the same. The JMNA outlines four possible types of crises: (1) a slow-building crisis; (2) a fast-rising crisis; (3) imminent conflict; and (4) conflict. The length and intensity of combat, for planning purposes, is assumed to be 450 days for counter-insurgency/counter-narcotics, 90 days of low-mid intensity for lesser regional contingencies, 120 days of mid-high intensity for major regional contingencies, and >50 days of mid-high intensity for a war escalating from a European crisis.

Responses to these contingencies are contained in a series of measured response options. The types of response could include a flexible minimal force deterrent response, a major deterrent response (Operation DESERT SHIELD), and more worst-case responses where combat is undertaken soon after the insertion of troops or simultaneously. This program of types of contingencies and measured responses appears to be a building-block and force sequencing approach to crisis management.

According to Secretary Cheney's February Congressional testimony, the U.S. will also devise a peacetime strategy to deter low intensity conflict. Such struggles threaten international stability. A dynamic "peacetime engagement" strategy to

promote democracy, nation-building, justice, free enterprise, economic growth, and to counteract local violence, terrorism, subversion, insurgencies, and narcotics trafficking can be accomplished primarily by security assistance programs as well as other instruments of U.S. national power.

The President alluded in his Aspen speech to maintaining a forward presence by exercises. General Powell stated at RUSI in December that forward presence includes military assistance programs. In his February testimony to Congress, General Powell expanded his definition of presence to include, but not be limited to: stationed forces, rotational deployments, access and storage agreements, combined exercises, security and humanitarian assistance, port visits and military-to-military relations. The JMNA adds combined planning, nation-assistance, peacekeeping efforts, logistic arrangements, supporting lift, and exchanges to the list of forms of military presence. These expanded definitions should be viewed as an attempt to ensure that all planned future activities will be able to satisfy the requirement to maintain an overseas presence with a smaller force.

After assessing the military threats and the recommended Defense Program, the JMNA concludes that ". . .the Defense Program provides minimum capability to accomplish national security objectives." It is to this program that we will now turn.

The "Base" Force

Although details of the President's new national security strategy are still being debated, active duty and ready reserve forces are likely to decrease significantly. According to the initial report in the New York Times, the "bottom line" numbers that were discussed in June at the White House were:

- Army: 12 active, 6 ready reserve divisions (currently 18 active & 10 reserve), and 2 "cadre" or reconstitutable reserve divisions
- Air Force: 25 active & reserve tactical air wings (currently 36)
- Navy: 11-12 aircraft carriers (currently 14)
- Marine Corps: 150,000 personnel (currently 196,000)

Subsequent reports in the media and the force levels delivered to the Congress by the Administration are slightly higher, reflective of budgetary negotiations that parallel the development of the new national security strategy. Force levels discussed in more recent reports included: a Navy of 451 ships (down from 545) including 12 deployable aircraft carriers and one devoted to training, 13 carrier air wings (CVWs), 150 surface combatants with no battleships, and a three Marine Expeditionary Force (MEF) Marine Corps of 160,000 personnel with simultaneous amphibious lift for the assault echelons of 2½ Marine Expeditionary Brigades (MEBs), fifteen active and eleven Air Force tactical fighter wings (TFWs), and 181 strategic bombers (down from 268). As the U.S. government attempts to complete a new budget cycle, we will see numerous other force levels suggested and debated. The initial New York Times report should be looked at in the context of a minimally acceptable force that probably was agreed to by the participants prior to events in Iraq and Kuwait.

Sometimes termed the "base" force, the new force structure advocated by General Powell will be organized into four basic military components: Strategic nuclear offensive and defensive; Atlantic; Pacific; and a Contingency Force; and four supporting capabilities: Transportation, Space, Reconstitution, and Research and Development (R&D).⁴⁶ This force structure and supporting capabilities are not contained in the President's speech but were developed in parallel to and supportive of the President's new national security strategy. What constitutes those forces will be debated throughout the next year. These forces are **not** meant to represent new commands, but rather force packages much the same that "Tactical Air Forces," according to the annual DoD posture statement, includes aviation forces assigned to the Air Force, Navy, and Marine Corps.

The Strategic Force

The Strategic Force would include those offensive forces that survive the START process, where numbers like 4500 and 3000 warheads for each side have been discussed openly during the past year. In their February Congressional testimony, Secretary Cheney and General Powell stated that they were prepared to reduce strategic bombers from 268 to 181, halt the construction of *OHIO* class ballistic missile submarines (SSBNs) at eighteen, not retrofit all of those submarines with the more advanced *TRIDENT II* (D-5) missiles, and only consider the *PEACEKEEPER* (MX) rail garrison intercontinental ballistic missile (ICBM) and small ICBM as R&D programs without plans for deployment. General

Powell added that *PEACEKEEPER* should be furl ed through its first developmental test. Admiral Jeremiah told Congress in March that we would end up with 550 ICBMs.

Reducing the offensive threat dramatically to such lower numbers suggests revisiting the suitability of strategic defenses. General Powell included the strategic defense initiative (SDI) in his American Legion, RUSI, and AFCEA speeches and his February 1991 article. Admiral Jeremiah outlined the need for SDI in December: ". . .against an attack by a major power. . ." and "also against Third World weapons of mass destruction delivered by ballistic missiles."

General Kutyna discussed the need for SDI and the Third World ballistic missile threat in his January Space Day briefing. He made specific mention of Libyan Colonel Qadhafi's April 1990 statement that he would have fired missiles at New York had he the capability when previously attacked by U.S. forces.⁴⁷ President Bush said in his State of the Union address in January that SDI would be refocused on providing protection from limited ballistic missile strikes against the U.S., its forces overseas, and friends and allies.⁴⁸

In his February 1991 testimony to Congress and subsequent written report to Congress, Secretary Cheney outlined a reorientation of SDI to a system of Global Protection Against Limited Strikes (GPALS) -- indicating that it would be space, ground, and

sea-based.⁴⁹ The initial objective of GPAL: would be protection against accidental, unauthorized, and/or limited ballistic missile strikes. The system should only be about half the size of the Phase I plan associated with SDI. It is likely that strategic defenses will at least continue as an R&D program.

Although not specified in any speeches and media accounts, an obvious area that demands clarification is the possible increased nuclear role for naval and air forces replacing ground-based weapons eliminated from Europe under current and future arms control agreements. General Powell stated in both speeches in December that the U.S. remains committed to a triad of offensive forces, but that we would probably increase reliance on sea-based systems. In addition, he stated in the AFCEA speech that ". . .we must make sure that our residual Strategic Forces are second to none."

The Atlantic Force

The conventional military forces of the U.S. appear to be headed for both reductions and restructuring. The Atlantic Force will include residual forces remaining in Europe, those forward-deployed to Europe, and the continental U.S.-based reinforcing force (including heavy ground forces). The Atlantic Force would contain a significant reserve component. This force would be responsible for Europe, the Middle East, and Southwest Asia in recognition of the fact that in the future, the threat in the Middle East is on a par with that of Europe, thus necessitating the same type of response. The fact that this force is not

called the European Force indicates both the shift in emphasis of the new national security strategy and the desire to apparently alter the concept for employment and perhaps command of the forces normally assigned to the Atlantic, European, and Middle Eastern theaters.

General Powell stated in his December RUSI speech that the residual Atlantic Force retained in Europe would consist of a heavy Army component (defined as perhaps at Corps strength) with supporting air forces. In his testimony to Congress in February, General Powell stated that the European forward-based Atlantic Force would consist of mechanized and armored ground forces.

In his March testimony to Congress, Admiral Jeremiah gave the first UNCLASSIFIED breakdown of exactly what was destined for the Atlantic and other Forces. These figures were later confirmed by General Powell's testimony to the Defense Base Closure Commission. The U.S. would retain in Europe: 2 Army divisions and 3 Air Force TFWs. The military prefers to discuss residual capability in terms of combat units, while others have suggested a force expressed in terms of numbers of troops. For example, the August 2, 1990 New York Times report discussed 100,000 - 125,000 military personnel remaining in Europe as part of the Chairman's revised force structure, although a 50,000 - 100,000 level was openly discussed at the IISS conference.

In his AFCEA remarks, General Powell further stated that forward presence for the Atlantic Force means Marines in the Mediterranean and strong maritime forces. In his testimony to Congress in February, General Powell stated that the European forward-based Atlantic Force amphibious forces should be capable of forced entry operations. According to Admiral Jeremiah, in March, the residual maritime forces in Europe will be one carrier battle group (CVBG) and an amphibious ready group (ARG). The JMNA refers to an Atlantic Force with one CVBG and one Marine Expeditionary Unit (MEU) deployed continuously in the Mediterranean Sea or eastern Atlantic Ocean. The notional force size of a MEU is 2,500 personnel with fifteen days combat sustainment. This is hardly a residual European-based capability for significant forced entry.

In his AFCEA remarks, General Powell stated that forward presence for the Atlantic Force means access in the Middle East, Allied interoperability and flexible command, control, and communications systems, and military assistance programs. All spokesmen have told Congress that there will also be some residual presence in the Middle East.

Atlantic Force forward presence will be backed up by a powerful and rapid reinforcement capability. In his AFCEA address, General Powell stated that Atlantic Force reinforcement and sustaining forces capability would consist of a mix of active and reserve heavy Army divisions and tactical fighter aircraft. In March, Admiral Jeremiah identified that capability as consist-

ing of 4 active, 6 reserve, and 2 cadre reserve Army divisions,⁵⁰ 2 active and 11 reserve Air Force TFWs, 5 Navy CVBGs, 2 USMC MEBs, and the USMC reserve component. Each MEB has a notional force size of 16,000 personnel with thirty days combat sustainment.

The Atlantic Force appears to be the backbone of America's future conventional deterrence for the area of the world that has predominated defense thinking for some time. Although there is no specific reference to dual committing forces from one theater to another, it should be noted that Japan-based U.S. forces participated in Operations DESERT SHIELD and DESERT STORM. It should also be obvious that if we reduce our residual force in Europe to those outlined above, it would strain them to be dual committed to the Contingency Force.

The Pacific Force

In September, General Butler stated ". . .that the U.S. could undertake a prudent, phased series of steps to reduce modestly our force presence in Korea, as well as Japan and elsewhere." General Powell told Congress in February that ". . .we can initiate a gradual transition toward a partnership in which ROK forces assume the leading role on the Peninsula. However, should deterrence fail, in-place and reinforcing US forces would still be required to blunt, reverse and defeat the type of short-warning attack that North Korea is still clearly capable of mounting."

The Pacific Force will include a modest and chiefly maritime residual forward-based and forward-deployed force remaining in Korea, Japan and elsewhere in the theater, and reinforcing forces located in the continental U.S. Admiral Jeremiah outlined that modest force in his March testimony. In Korea, we will initially retain one Army division and 1-2 Air Force TFWs. In Japan, 1-2 Air Force TFWs and one home-based Navy CVBG. A MEU will operate in the Western Pacific for most of each year.

General Powell stated in his December RUSI speech that "the bulk of American Army and Air Force power in the Pacific would be as reinforcements . . . using Hawaii, Alaska, and the continental United States as springboards." Admiral Jeremiah defined that reinforcement in Hawaii and Alaska as a light Army division (probably the 25th Infantry Division), an Air Force TFW, and a USMC MEB. In the continental U.S., there would be an additional Marine Corps MEB and 5 Navy CVBGs. Modest reserve components in Alaska and Hawaii would be allocated to the Pacific Force.

In his AFCEA address, General Powell stated that "In short, the Pacific Force would continue our very successful economy of force operation in this critical region." It is unlikely that the modest-sized Army and Air Force Pacific Force assets would have a dual commitment to the European theater in a revitalized "swing strategy" but it is clear that any substantial land war in Asia would necessitate "borrowing" forces from elsewhere.

Is there a need to retain expensive overseas bases in the Philippines, and elsewhere, under such a strategic concept? If the Cold War was our original justification for the large presence of forces in the Pacific, then if the Cold War is over, it is over in the Pacific as well.⁵¹ If forces and bases are to be permanently retained overseas, it will have to be for other reasons, and those reasons should be clearly articulated and debated in Congress. The Congress and American public may well ask why the U.S. should remain unilaterally committed to defend nations which are not obligated to assist the U.S. in its own defense and may not have made actual contributions to the cost of Operation DESERT STORM. If the U.S. significantly reduces its forces in Japan, there is a possibility that there will be arguments to increase the size and/or capability of the Japanese Armed Forces. Any such possibility will be watched very carefully by China and other Pacific nations.

The Contingency Force

Perhaps the most dramatic innovation of the Chairman's recommended force structure is the creation of a Contingency Force based in the continental United States.⁵² The Contingency Force, according to the guidelines in the President's Aspen speech, will apparently be shaped by the need to provide an overseas presence and response to regional contingencies - not to return quickly to Europe. It would appear that the Contingency Force is to be responsible for those areas of the world that

would not be covered by the Strategic, Atlantic, or Pacific Forces. By inference, that would appear to be Latin America and Africa, not the Middle East or Southwest Asia.⁵³

Continental U.S.-based contingency response forces are not a new idea. In the 1950s and early 1960s, the JCS and the military services experimented with a series of similar schemes that were eventually abandoned under the Kennedy Administration. A U.S. Strike Command existed from October 1961 - December 1971 as a Unified Command. Similar arrangements involved varying commands that have, from time to time, been responsible for the Middle East and South Asia.

At one point, the U.S. Army created a Strategic Army Corps (STRAC) consisting of two divisions. Air Force Tactical Air Command (TAC) as well as Navy and Marine Corps units not otherwise allocated to other C-in-Cs were assigned to the U.S. Strike Command. Similarly, the old Rapid-Deployment Joint Task Force (RDJTF) serves as another precursor to the proposed Contingency Force.

General Powell stated in his December speeches that the Contingency Force would have a very small Reserve component. Later testimony and articles reveal that this is primarily airlift and supporting forces - not combat capability. The Army and Air Force will apparently commit 4 divisions⁵⁴ and 7 TFWs to the Contingency Force. According to the Army Posture Statement,

contingency response divisions will be structured to sustain deployments for about thirty days without augmentation by reserve components.

The Navy and Marine Corps will apparently provide dual-committed forces from the Atlantic and Pacific. Most of the rapid response sealift and all intertheater airlift and all special forces would belong to the Contingency Force. The JMNA additionally included the following in their definition of the Contingency Force: Army airborne, air assault, light, and highly mobile heavy divisions, Air Force long-range conventional bombers, and Navy attack submarines.

General Butler provided the following detailed breakdown of how the Contingency Force would function. The first stage of a Contingency Force to be used in what he termed a "graduated deterrence response," for program planning purposes, would consist of (in the order stated): (1) Army light & airborne divisions, (2) USMC MEBs, (3) Special Operations Forces, and (4) selected Air Force units.⁵⁵ At his AFCEA speech, General Powell used a different order: (1) light Army forces, (2) mixed Air Force and Navy units, (3) Marine Corps units, and (4) units from the Special Operations Command.

According to General Butler, this initial component of the Contingency Force would be buttressed as necessary by: (1) carrier forces, and (2) amphibious forces. Normally the Navy prefers to advertise the frequent call on carrier forces for

immediate crisis response, and listing these forces in the second component of the Contingency Force probably reflects the land orientation of the concept. It would be wholly illogical to assume that the U.S. will require fewer responses by carrier battle groups in the future - indeed, a case can be made that we will send the fleet more often in the future. The New York Times report listed carriers in the initial crisis response force but implied that they might not be forward deployed.

The listing of amphibious forces in the second tier seems appropriate, reflects recent employment of the Marine Corps, and consistent with the Commandant's recent statement on maneuver warfighting doctrine⁵⁶ and shift in identification of Fleet Marine Forces from "Amphibious" to "Expeditionary." Amphibious capabilities must be retained by the United States but in the context of contingency operations rather than a major assault on Europe -- General Powell's statement regarding the forced entry amphibious capability for the Atlantic Force will likely be clarified. If another D-Day type invasion were ever required of American forces, amphibious forces would be among the forces reconstituted and built as was done during World War II.

The third tier of the Contingency Force appears to be heavier forces with the capability for long-term sustainability. Again, we have seen this application in Operation DESERT SHIELD. From their annual posture statement, it appears that the Army would prefer to see heavy units more clearly identified with the

Contingency Force. General Powell's position would appear to be that the Contingency Force could, if necessary, "borrow" heavy forces from the Atlantic Force. He stated at AFCEA that the Contingency Force ". . . would draw as necessary from other larger Forces if it needed additional staying power and sustaining power." U.S. planning for contingencies should also benefit from the experiences of France's *Force d'Action Rapide* (FAR) -- formed as an additional component to the French Army in 1983 -- which has a similar mission to the proposed Contingency Force.

CNO, Admiral Frank Kelso, USN, told Congress in February, that a "base" force, 451-ship Navy, deploying about 30% of the available fleet, could provide an immediate response to a crisis anywhere in the world within seven days of one Amphibious Strike Task Force consisting of one CVBG and an ARG with an embarked MEU. A second CVBG could be available within fifteen days. A full MEB could arrive within thirty days.⁵⁷ Hence the most that the sea services could deliver to a crisis area under this plan is a token force for presence immediately and a modest force (about the size of an Army division) within a month.

It would take the sea services a 40% deployment rate to be able to respond to a regional conflict with a more robust combat capability: 3 CVBGs and a full MEF - notional USMC force size of 48,000 personnel with sixty days sustainment. With the costs involved with such a high deployment rate, it is unlikely that the Navy itself will recommend such a posture - given its desires to replace aging hardware. Deployment rates in excess of 40% are

necessary for the sea services to be able to simultaneously respond with 3 CVBGs and a MEF in one location and another carrier elsewhere.

Although the sea services could have logically been thought of as the core of this new Contingency Force, the Army and Air Force can argue that they can provide airpower and combat capability anywhere in the world faster. Indeed, there have been informal suggestions by Air Force personnel that their TFWs can be expressed in terms of CVBG equivalents! If you assume that the U.S. will only involve itself in overseas contingency operations with the cooperation of host nations and with the support of coalitions, then the Air Force/Army response may appear more cost-effective.

The clue to understanding the new crisis response part of the new national security strategy is that it is not keyed to one service or even the active component having a unilateral capability. Crisis response in the future appears to be a joint responsibility with a mix of active and selected reserve units.

Transportation

According to General Powell, transportation is one of the major supporting components to the new national security strategy. Mobility programs proposed by the Secretary of Defense in his annual report included the ability to return to Europe with 4

Army divisions, 30 Air Force tactical fighter squadrons, one USMC MEB, and their associated support within 10 days. Additional forces would be provided within 2-3 months. DoD will continue to build toward prepositioned equipment in Europe for 6 Army divisions and their associated support elements.

For contingencies outside of Europe, the goal is to be able to provide 5 Army divisions, along with associated air and naval forces in about 6 weeks. It would appear that ground units would fly to a future crisis, much as forces assigned to Operation DESERT SHIELD did to Saudi Arabia. Personnel will then either be married up with prepositioned equipment or with equipment that arrives via sea.

Prepositioning for ground and air forces is part of the complete package that must include intertheater lift. The amount of equipment that must be prepositioned for even a light Army division and the fact that this is essentially a duplicate set will probably make prepositioning a less attractive alternative to the Army than fast sealift. When addressing fast sealift, the military will have to make a tradeoff between speed and tonnage.

The U.S. will certainly have to retain sufficient lift to support immediate contingency operations by either the Atlantic or the Contingency Forces. Lift requirements for the Pacific Force are less clear. Initial lift requirement will probably include the capability to handle concurrent operations but it is unlikely that funding will be provided for simultaneous crises

given the years of failing to provide lift for a 1½ war strategy. The March 1991 JMNA states that the U.S. has the capability to deploy forces in all program scenarios except: (1), when two regional contingencies occur sequentially or concurrently; and (2), in the early weeks of a short-warning war in Southwest Asia.

Lift capability disclosed during Operation DESERT SHIELD will be studied and may result in new requirements and possibly additional assets.⁵⁸ The U.S. already has special lift assets and a robust prepositioning program, but may learn from recent experience that modest increments of additional lift or prepositioned equipment are required.

Lift will probably include a modest government-owned capability in a caretaker status and civilian air and sea transportation assets engaged in normal peacetime trade. The U.S. was able to generally meet its lift requirements for Operations DESERT SHIELD with a combination of existing assets, those that were taken up from trade, and charters of foreign capability.⁵⁹ Similar assumptions will probably be made under the new national security strategy.

Air and sealift for a major NATO war in Europe can be put into the category of forces that could be reconstituted during the two years that future program planning now assumes is available. Reconstitution of lift should include: that provided by allies, charters from foreign non-aligned sources, and the acti-

vation of assets placed in storage. It will likely be hard to justify the retention of older, World War II-era ships, as a part of a restructured National Defense Reserve Fleet.

Unilateral Capability?

One of the more interesting questions regarding the Contingency Force and potential intervention by the Atlantic or Pacific Forces is whether or not the planning assumption includes a unilateral capability or is the participation of host nations and allies understood? Although Secretary Cheney told the House Appropriations Defense Subcommittee in February that the U.S. "will retain the ability to act alone," the March 1991 JMNA assumes that host nation support and sufficient infrastructure is available for any major regional contingency. At the end of April, General Powell told the Defense Base Closure Commission that: "Frequently, access ashore will be contested or unobtainable, requiring employment of sea-based forces."

"Acting alone" must be viewed in terms of what level of warfare is being discussed -- strategic (a major war such as World War II), operational (campaign sized similar to Operations DESERT SHIELD or DESERT STORM), or tactical (similar to the invasion of Grenada or Panama), and whether or not such operations are essentially nuclear, maritime, or air/land warfare. The U.S. will probably reserve the right and maintain the capability to take unilateral military actions with nuclear forces and with all types of forces at the tactical level of warfare, but probably not at the strategic or operational levels of

air/land warfare. If the nation remains committed to maritime superiority, then we would still have the ability to mount a unilateral theater campaign at sea.

However, we should assume that the U.S. would **not** be able to **unilaterally** mount an opposed contingency operation or campaign such as DESERT SHIELD with the "base" force. One could argue, furthermore, that the U.S. probably does **not** even have this operational level capability today. Both the Secretary of Defense and the Chairman of the JCS were careful in their testimony to the SASC in February, to project that the "base" force **could** handle an Operation DESERT SHIELD or DESERT STORM but that it might have taken longer before the forces were prepared to go on the offensive. This answer assumes, however, that such operations are coalition - **not** unilateral-based.

The U.S. long has assumed that a major war (at the strategic level) would only be pursued as a part of alliances, such as NATO - hence there is no real change at this level of warfare. Indeed, continued good working relations with allies is a specific goal of the new national security strategy and a vital building block for the reconstitution of a substantial U.S. military presence in Europe. Similarly, the U.S. has always had a unilateral capability at the tactical level of warfare and there is no reason to assume that it will not have this in the future.

The Administration may further amplify its views on this issue once the Services point out the significantly different force structure that is required with the varying assumptions. If the U.S. desires a unilateral capability to intervene in the world without host nation support, on the order of an Operation DESERT SHIELD, then the current force structure will remain high -- perhaps too high to absorb the budget reductions that are imminent. If the budget drives the problem, we are less likely to be able to field a force that can intervene without the assumption of host nation and coalition support. This issue will probably be a major point of discussion during the next budget year.

NATO Initiatives

U.S. forces in Europe, and elsewhere, cannot be changed without considering commitments made to allies and the planned employment of American resources in combined operations under NATO command. Most Europeans initially assumed that the U.S. Army and Air Force would either remain as a major element in theater or at least maintain large standing active or Ready Reserve forces which could be returned to Europe within a reasonable period. This may not be the case, and America's promise to return may only be quickly with a smaller existing active and reserve force mix and after two years with reconstituted additional forces.

While the United States is considering major changes in strategy and forces, so is NATO. The July 1990 NATO London Declaration stated that "NATO will rely more heavily on the ability to build up larger forces if and when they might be needed."⁶⁰ The July Declaration stated that the Alliance too was preparing a new "military strategy moving away from 'forward defense'. . .towards a reduced forward presence. . ." The declaration also stated that "NATO will field smaller and restructured active forces" and "will scale back the readiness of active units, reducing training requirements and the number of exercises."

General John R. Galvin, U.S. Army, NATO's Supreme Allied Commander Europe (SACEUR), recently told the Defense Planning Committee (DPC) that he envisages a change in his primary combat

mission from flexible response and forward defense to crisis response.⁶¹ The centerpiece of this capability would be a standing Rapid Reaction Corps centered about a multinational corps and the existing Allied Command Europe (ACE) Mobile Forces. Should these standing forces not be able to support political decision making, then additional forces will be mobilized and regenerated or "reconstituted."⁶²

Although NATO is attempting to reach an alliance-wide agreement on force structure, many nations are already undertaking unilateral force reductions. Germany is reducing its forces to 370,000 personnel with about half of that to be placed in the reserves.⁶³ France is withdrawing all 55,000 officers and men from Germany.⁶⁴ The U.K. announced a plan to reduce the British Army on the Rhine by about 50%,⁶⁵ demobilizing most of the troops but retaining regimental identifications. There are reports of additional unilateral cuts. These unilateral decisions by member nations will have dramatic impacts on the NATO war-fighting C-in-Cs plans for military operations and campaigns in the event of war.

SACEUR's realistic residual U.S. force for Europe apparently is one corps, several Air Force wings, and the Sixth Fleet (which includes around 20,000 personnel ashore).⁶⁶ Planning in Europe should include the possibility of a total withdrawal of American combat units from the continent. Were this to happen, would other allied NATO ground forces remain unilaterally forward-deployed, and if so, where?

According to the NATO London Declaration and General Galvin's DPC remarks, a new NATO war fighting strategy is being drafted to replace the current strategy of flexible response (MC-14/3). This strategy perhaps may be identified as MC-14/4 or may have a fundamentally new series designation to signify the fundamental changes that it reflects. The overall new NATO strategy will be based upon newly calculated national commitment force levels. It is not clear if SACEUR, primarily a land theater and under the command of an Army general, will take the lead of the development of a new NATO maritime concept of operations in his areas of responsibility (which includes the Mediterranean), or leave that to his maritime counterpart - SACLANT.

Unilateral programming actions for future forces being undertaken by individual NATO nations, like the U.S., will obviously affect the warfighting strategy that NATO as a whole will be able to implement as those programmed forces become operational. Current national programming actions may stem from revised national views on war, the threat, or the resources available for defense. This is exactly what has happened in the United States.

NATO is attempting to get a reasonably quick consensus on its warfighting strategy so that national programming actions will support its new strategy rather than limit it. In October, General Galvin reminded us that MC-14/3 took nearly six years to write and be approved and that the General Political Guidance for

the employment of Nuclear Weapons took fifteen years.⁶⁷ SACEUR stated, in addition, that the NATO process ". . .has to be completed within a year, or at most a couple of years." The Soviets, who have undergone a similar change in military doctrine and strategy, are anxious that NATO complete this process as soon as possible.⁶⁸ General Galvin told the IISS in February 1991 that he would have the new strategy before the Chiefs of Defense staffs of all the nations at their meeting in April 1991.⁶⁹

The new NATO strategy will be based upon paragraph 20 of the London Declaration. According to General Galvin's remarks at IISS, NATO strategy will have peacetime, crisis, and wartime responses. Peacetime elements will likely include: enumeration of national prerogatives, maintenance of alliance cohesion by integration and multinational forces, intelligence and verification of arms control agreements, forward presence, active and reserve forces training, force generation preparation, and interaction with non-NATO forces.

The crisis response strategy will likely address: readiness for the Rapid Reaction Corps, the quick reaction of the alliance to emerging crises, communication with adversaries, planned sharing of risks and burdens, escalation and deescalation, and the preparation for controlled mobilization and demobilization. New political realities require an enhanced political component to crises that erupt in the NATO area. For example, the initial reaction to a crisis in the territory of the former German Democratic Republic might include NATO deployment to include **avoiding**

contact with remaining Soviet troops. The political goal of a future crisis appears to be - control and deescalate.

NATO initiatives include more emphasis on mobility and multinationality. Multinational corps with two or three divisions from different countries parallel existing arrangements for multinational maritime forces. General Galvin told the IISS that he would present his third draft of a revised force structure to the Chiefs of Defense staffs in April. He speculated that NATO would field about half of its existing force levels in the Central Region with about the same forces in the North and South.

NATO strategies will likely not be so strongly based upon the threat; they will more likely reflect the need to defend NATO member states territory or NATO interests. If interests are to be defended, this opens-up NATO to out-of-area operations -- something that the Allies have traditionally been reluctant to formalize as an Alliance role. There is an open debate whether or not NATO should assume this role or such a role should exist under some other umbrella organization - or at all?

All of the following actions are necessary: national programming planning to deal with future national force levels; national war planning to outline current plans to commit forces to NATO and for actions by forces retained under national command; and NATO war planning to deal with current and future forces they expect to be committed to the Alliance. It is very

likely that initially, there will be significant differences between the strategies articulated for each case.

The Soviet Threat

Underlying any reexamination of America's role in the world and America's or NATO's basic national security strategy are the monumental changes in the international security environment in the past few years. Strategies are designed to cope with implied or explicit threats; the profound changes in the threat, therefore, have a direct bearing on the strategies that the U.S. and NATO need and will develop. Rather than enumerate the revolutionary events we have witnessed, it seems appropriate to first analyze the impact of these changes on the Soviet C-in-C of the Western Theater of Strategic Military Actions (TVD).

NATO is aware of the capability of Soviet hardware, military exercises and deployment, and military-technical aspects of military doctrine as indications of a real strategy and capability for offensive warfare by the Western TVD Commander. Employing this offensive capability was termed, by the Soviets, a theater strategic military operation. The theater strategic operation we believed the Soviets capable of recently strongly resembled the Manchurian Operation they fought against Japan near the end of World War II.⁷⁰

In the Western TVD, initial offensive military operations by a front were assumed to achieve rates of advance of 40-60 kilometers per day to a depth of 600-800 kilometers.⁷¹ The duration of a normal frontal operation was about 15-20 days, meaning that overall, two fronts should have handled all of Western Europe in

about 25-30 days. NATO took this threat seriously and prepared its own forces and counterstrategy accordingly.

It is not clear that the Soviets ever saw themselves as fierce warriors as the West did. They had a much clearer picture of deficiencies in the military-industrial sector that have just now become apparent to the West. They recognized the problems they would have if they attempted a theater-wide military operation with a simultaneous surge effort by multiple fronts. It is doubtful that they even felt capable of managing such a theater strategic offensive using sequential operations.⁷²

With the nagging self-doubt in their ability to manage a theater strategic military operation before the sweeping recent political changes in Europe, the problems are infinitely more complicated given the reunification of Germany and the imminent withdrawal of Soviet forces from Germany, Hungary, and the Czech and Slovak Federal Republic. Even if Soviet forces remain in Poland for a few years, the Western TVD C-in-C cannot count on Warsaw Pact nations committing their armed forces to Soviet command. Indeed the Western TVD C-in-C probably assumes that Eastern European military forces would oppose a Soviet forced reentry.

The Western TVD C-in-C cannot advise his political leadership that, under current or likely future conditions, it is possible to launch offensive military operations at the theater strategic level, against non-Soviet Europe with any degree of

confidence of successfully completing his assigned mission. The Western TVD C-in-C is probably driving his staff to develop new plans for the defense of the USSR from within their own borders and perhaps their forced and opposed reentry into Eastern Europe.

These assumptions dovetail remarkably with the declaratory Soviet military doctrine and strategy evidence that we observed in the past few years. They also parallel the new draft military doctrine published in November 1990.⁷³ We have seen Soviet deeds belie Soviet words, when they previously spoke of a defensive doctrine but clearly maintained forces for an offensive strategy. The Soviet Union is moving towards positioning all its ground forces within its borders, absorbing the first blow from an adversary, then having the capability and military strategy to repel an invasion to the Soviet border but not cross and continue the counteroffensive in enemy territory.⁷⁴

It appears that the traditional strategic missions of the Soviet Armed Forces and the criteria for successful completion of those missions, have undergone significant revision. Formerly, total defeat of the enemy's armed forces in an armed conflict was demanded as the military's contribution to the overall war effort. Under the new defensive doctrine, the revised military requirement is to defeat the invading force and to prevent vertical and horizontal escalation, or the escalation of the conflict over time.

In a November 1989 interview, Marshal of the Soviet Union Sergei F. Akhromeyev, identified then as the military advisor to the Chairman of the Supreme Soviet, stated some very specific views on how long this defensive period would last. He implied that the role of the defensive, during the first few weeks of the initial period of a future war, was to allow the political leadership the opportunity to terminate the crisis before it erupted into a major armed conflict and war. If the political leadership failed, Akhromeyev implied that the military would be then be unleashed to perform their normal function of crushing and decisively routing the enemy.⁷⁵

The new draft defensive doctrine attempted to deal with this issue of how long the defensive period would last. It states that "defense is the principal form of military operations with the beginning of aggression. Subsequent operations by the USSR Armed Forces are determined by the nature of the enemy's military operations and depend on means and methods of warfare he is using." The draft also states that the defensive mission of the Soviet Armed Forces in the event of aggression is to repel it, defend state sovereignty and territorial integrity, and create "conditions for the most rapid cessation of war and the restoration of a just and lasting peace."

A previous debate within the framework of Soviet military science covering the initial period of a war that may prove instructive on this question of initial defensive operations today. During 1922 - 1941, questions arose regarding how long

border skirmishes and diplomatic exchanges would last prior to total mobilization. Marshal of the Soviet Union Georgi Zhukov gives the interval in his memoirs as "several days" while Marshal of the Soviet Union Vasiley D. Sokolovskiy writes in his Military Strategy that the initial period might have lasted 15 - 20 days.⁷⁶

The political/ideological goal of traditional Soviet war termination strategy was to ensure that the aggressor could not again threaten the USSR, and that progress was made toward eventual peace ("mir") and a world socialist order. The political goals for war termination are now to prevent nuclear holocaust and simultaneously ensure the survival of the homeland (socialist or other).

We are receiving additional clear signals about "new thinking" in the USSR. Army General Mikhail A. Moiseyev, Chief of the USSR Armed Forces General Staff and USSR First Deputy Defense Minister, announced, in November 1990, a series of significant Soviet military reforms that parallel actions being taken by the U.S., NATO, and the general European community of nations.⁷⁷ Moiseyev's interview was followed up by publication of the "USSR Ministry of Defense Draft Military Reform Concept."⁷⁸

The first stage of the planned reform will last until 1994 and will consist of the complete redeployment and resettlement of Soviet troops based on foreign soil. The second stage (1994-

1995) will consist of the formulation of strategic groupings of armed forces on Soviet territory with a new system for training and mobilization. The third stage will last from 1996-2000. In this stage, further reductions, reorganizations, and reequipping of forces will take place.

By the year 2000, according to the draft plan, strategic nuclear forces will be cut 50% (with additional cuts possible), ground forces by 10-12%, air defense forces by 18-20%, air forces by 6-8%, and administrative, research, and other combat forces by 30%. The number of generals to be cut is 1,300, officers - 220,000, and warrant officers and ensigns - 250,000. The overall armed forces will number 3-3.2 million personnel -- down from 3.9 million in the active forces today. Military authors tend to tie such drastic reductions to the elimination of weapons of mass destruction; i.e. having a military force incapable of conducting offensive strategic operations should not occur until the total destruction of all nuclear weapons.⁷⁹

Perhaps the most startling signals about "new thinking" is the proposal contained in an August 1990 article by a Soviet general officer attached to the General Staff Academy.⁸⁰ In this proposal, the Armed Forces of the USSR restructure themselves into three basic contingents, which show a remarkable resemblance to President Bush's new national security strategy and General Powell's "base" force structure. The proposal also appears to be entirely consistent with the subsequently published draft Soviet military doctrine. The USSR appears to be discussing its own

version of an active, reserve, and reconstitutable force strategy and base force.

The first contingent, in this new Soviet proposal, would comprise forces in a state of permanent high combat readiness. It would consist, in part, of new military services called the Nuclear Forces and Space Forces. The Nuclear Forces would comprehend the existing Strategic Rocket Forces, as well as appropriate units from the Air Force and the Navy. Space Forces would include existing Air Defense and Antisatellite Forces. These new services would remain under the direct control of the Supreme High Command.

The first contingent would also consist of highly mobile Ground Forces, whose strength and composition could change depending upon the international political-military situation and the economic potential of the USSR. This force size would be sufficient to resolve a conflict in an individual region until relieved by forces of the second contingent. The new draft military doctrine referred to such a concept and specified that: "the first strategic echelon consists of troops of the border military districts and fleet forces. Troops of internal military districts form the strategic reserve."

Prior to the outbreak of the Great Patriotic War, the USSR deployed slightly more than one-half (56%) of its Ground Forces divisions, some 170 divisions and 2 brigades (2,901,000 person-

nel), to defense of the new state borders in the Western TVD.⁸¹ The Soviets deployed 56 divisions and 2 brigades in the first echelon of its border-defense armies. Each first echelon division was responsible for some 100-120 km of the border when it followed mountains or rivers and 25-30 km in the most important axes. There were 52 divisions in second echelons and 62 divisions in reserve deployed some 25-75 km from the state border. The General Staff's May "1941 State Border Defense Plan" also provided for additional reserves in interior military districts. These reserve forces would be used to deliver counterthrusts and man defensive lines 100-150 km from the new state borders.

The requirement for the future first contingent of Ground Forces does not appear to include the capability for offensive military operations at a theater strategic level -- hence it will be necessary to compare the Soviet experiences in the Great Patriotic War with future force levels. Initial estimates are a first contingent force of only 1.2-1.3 million servicemen allocated between the Ground Forces, Air Force, Air Defense and Space Defense Forces, and the Navy. Command and control would remain with the High Command of Forces in the TVDs.

The second contingent, according to this proposal, would consist of an additional 630,000-man reserve force. Up to one-third the first contingent would form the nucleus of the second contingent. Hardware and weapons for these reserves would be stored at depots and bases. This contingent would form the large strategic formations necessary for major military operations in a

war. The second contingent could probably mount an offensive theater strategic military operation -- but before it was organized, strategic warning would be provided.

The third contingent would embrace, in part, some 300,000 - 350,000 additional men undergoing between five and six months training for national service. The men would then serve for an additional five-six months with either first and second contingent forces, or a longer period in newly organized republican units, probably similar to the U.S. National Guard. Call-up will take place twice a year. These forces would augment troops in the field should war erupt. A second part of the third contingent would consist of these new republican units. The total strength of the third contingent would be some 600,000 - 700,000 servicemen. Due to more recent events in the USSR, it is unlikely that there will be continued support by the Soviet Armed Forces for strong republican units.

This proposal for the reorganization of the Soviet military is but a proposal in a continuing internal debate over the programming for new forces. The debate is not over and may be immaterial to a discussion of the problems of current war planning guidance. Except to the extent that debates over future forces give us insights on current thinking, many military leaders today retain their "old thinking" from the days that they were first socialized into the Army and it is this type of thinking that we also would have to face if there was a war today.⁸²

The message for the West, however, is that if reorganization plans like this are implemented, and reductions in military capability include strategic nuclear and naval forces in the future, then Gorbachev's promise to take away the threat has come true. Even if the Soviets are found to be cheating on the margin with regard to CFE and other future arms control and confidence building measures in Europe, we should ask ourselves if they are in the position to once again mount the old theater strategic offensive operation? When confronted with that question, CFE "cheating" may more correctly be seen as an inability to provide exact numbers and locations which will be corrected when requested.⁸³ We must now deal with the questions stemming from "what if peace?"

Issues For Discussion

The issues raised in the President's Aspen speech are numerous, complex, and require discussion. Some of the more important include: how likely is the President's new national security strategy to take hold; how do we define our new goals and objectives for both program and war planning; what is the lasting impact of Operations DESERT SHIELD and DESERT STORM; what are the new requirements for the intelligence community and for decision-making? What are the industrial aspects of the new national security strategy: technology requirements, R&D, investment strategy, reconstitution, and the impact on stockpiles? There will certainly be an impact upon DoD organizations and the need for a special transition period. Finally, there are obvious implications for arms control and military operations research and analysis. This section will respond to these obvious questions and perhaps suggest what else might be included.

Is the New Strategy Real?

It may be instructive to review another Presidential unveiling of a major programming strategy to see if there are parallels. When President Ronald Reagan announced, in March 1983,⁸⁴ his concept for SDI, he explained how the U.S. and its allies planned to defend themselves from an attack by Soviet ICBMs. Both President Reagan and Bush's speeches unveiling their new strategic concepts are just that; a vision of a new strategy to be debated and possibly adopted -- not necessarily an announcement of new governmental policy.

The strategy associated with SDI would be possible only if the Congress would purchase the weapons systems associated with SDI. It would have been wrong to assume that current U.S. or NATO strategy was immediately changed to defend the U.S. against ICBMs, since neither the U.S. nor its allies had defensive forces in being which could engage such missiles.

Just as in 1990, there transpired a series of briefings and speeches in 1983 by supporting officials following the President's vision of a new defense doctrine. Then-Secretary of Defense Caspar Weinberger delivered a major speech explaining the basic concept.⁸⁵ A Blue-Ribbon panel of experts was commissioned to study the possible applications of technology to the strategy⁸⁶ and initial results of their deliberations began leaking to the public in late 1983. Not until the programming documents were delivered to Congress in February 1984 did the strategy for defense of homeland and allies under SDI begin to be fleshed out in official documents.⁸⁷ Indeed, strategic defenses in the previous set of programming documents provided no hint that a new initiative was being contemplated.⁸⁸

Unlike the 1990 case, in 1983 the civilian academic community appeared to mobilize almost instantaneously and publish both supporting and critical assessments of the new doctrine, mostly newspaper Op-Ed pieces. It was months later that the public saw more comprehensive treatments of the strategy and associated technologies. There was widespread interest in the technologies

associated with SDI, primarily because of the opportunities for procurement business with the government and opportunities to work at the vanguard of knowledge. What is less well recognized, however, was the great deal of "study money" used to flesh out the strategic concepts.

We should assume that President Bush's Aspen speech will likewise lead to substantial "study money" being used to flesh out the concepts he discussed. What remains to be seen is whether the studies will be completed before 1991 budget actions or faster than significant international events unfold.⁸⁹ Recent events in the Middle East sidetracked a great deal of internal examination of the new national security strategy and the expected critical evaluation from those outside government.

Under the American form of government, the announcement of a policy by the Administration is not necessarily an announcement of government policy. Indeed, SDI, although feared and attacked by the Soviet Union, and probably the cause for major decisions in the Soviet budget, never developed beyond the stage of an initiative, and full-scale evolution or deployment may not yet be feasible. On the other hand, the Bush Administration has been successful in working with the key power bases in Washington to push policies through with a minimum of debate.

Another case of a new strategic vision is also instructive. Both candidates George Bush and Michael Dukakis appeared to

embrace the "competitive strategies initiative" during the last presidential campaign. The Fiscal Years 1987, 1988, and 1989 Annual Report to the Congress by the Secretary of Defense included sections devoted to competitive strategies. Competitive strategies also appear in the 1987 edition of the President's National Security Strategy of the United States and in the United States Military Posture FY 1988, prepared by the Joint Staff. Competitive strategies, still an initiative, has never attained full policy status of the Executive branch of government and receives barely a mention in the 1991 annual posture statement by the Secretary of Defense. Indeed, despite having an extremely powerful weapon to use vis-a-vis the USSR today, the economic weapon, the West is not only not using this weapon but instead is actively trying to bail out the Soviet Union.

In short, before any new initiative becomes a funded government policy, vested domestic interests and America's allies will have opportunities to make their desires known. Whether or not they succeed in becoming a player in America's new national security strategy and "base" force structure will depend upon their political prowess.

Parliamentary governments, common among our NATO allies, may have some advantage in completing a comprehensive review of strategy and redirection of defense programs. Hence, it may be easier for NATO nations to respond to this U.S. initiative and international events than it will for the U.S. to take action.

A good example of the verities of parliamentary forms of government, compared to the American government, in making major defense policy changes is the review of the master strategy for Australian defense forces conducted from 1985-1987. In February 1985, the Australian Minister of Defense, Kim Beazley, employed noted strategist Paul Dibb to examine the current capabilities of the Australian Defense Force, describe the current strategic environment, set defense priorities and strategy, and define the appropriate future force structure.

Dibb issued his report in March 1986 and, after a sufficient period for analysis and criticism, the government issued its own version in March 1987.⁹⁰ Concepts first outlined by Dibb were adopted by the Australian government, after a serious but brief (by American standards) debate and adjustment. They were then carried out by the Ministry of Defense and the Australian Defense Forces.⁹¹ Such a relatively orderly process seldom occurs in the United States, and we should not expect debate over the President's new national security strategy to remain either bloodless or limited to American domestic political actors.

Defining Goals & Objectives in Programming & War Planning

Political-military strategic planning generally commences with: (1), a tabulation of the resources likely to be available, or (2), an assessment of the threat, or (3), an examination of the goals and objectives to be attained. The planning process can start with any of these three factors but it generally does

start with different ones depending upon the type of planning underway -- war planning for immediate combat operations or program planning for forces to be delivered in the future.

In wartime, planning often starts with a tabulation of the resources available - probably how the military started the process on December 8, 1941 -- after the Japanese attack on Pearl Harbor put significant portions of the Pacific Fleet on the bottom. Existing plans for war with Japan had to be revised based upon the numbers and types of surviving forces. Initial goals were limited by the resources available.

In wartime, nations may also turn first to an examination of the threat, especially when faced with the need to create major strategic plans insufficiently researched before the war. The USSR likely did this after the Germans invaded on June 22, 1941. Prior to being invaded by Germany, insufficient attention had been paid to fighting the Germans on Soviet soil on the strategic defensive. The Soviet military was forced to develop plans and execute them in short order based upon a revised threat scenario.

War planning may also start with an examination, analysis, and reconsideration of goals and objectives. The U.S. and the Soviet Union each had initial goals and objectives they attempted to achieve in the initial stages of World War II but generally these were limited by the newly revised resources available and the actual threat as demonstrated by enemy capability. Later, however, the allies amassed sufficient forces to operate on the

strategic offensive in all theaters and recognized that "unconditional surrender" was a possible goal. War plans could then be drawn up with primary consideration given to goals and objectives rather than resources and the threat. This also underscores that goals and objectives can and often do change during wars.

Much of the literature devoted to defense planning does not, however, concern actual war planning, but rather program planning, used to explain to legislators and the public why certain types of weapons systems and forces should be purchased and maintained. There is often some overlap between the initial program plans and subsequent program plans - but not always. For example, the *USS MIDWAY* was justified in 1940s programming plans to help defeat Japan. War plans in the 1980s included the *USS MIDWAY* defending Japan. Similarly, program plans after March 1983 included SDI but war plans written that year could not.

Program planning under the Planning, Programming, and Budgeting System (PPBS), in the United States, officially starts with an examination and identification of the threat. There have always been implicit unofficial discussions of the range of resources available and a general consensus on goals that may have preceded this threat examination. The consensus on goals is what is being discussed in the President's new national security strategy.

Current U.S. and Soviet program planning has been drastically affected by the change in perceptions of the threat facing these two nations. After years of relying on military preparedness to guarantee peace, each side has apparently seen that what it took as reasonable steps for self-defense were perceived by the other side as evidence of aggressive intentions.⁹² The American public, and therefore the U.S. Congress, has revised their world view and made it known that the levels of programming expenditure devoted to the Soviet threat are simply no longer required. It seems that the major driving factor behind the creation of the President's new programming strategy is the need to outline a plan to maintain national defense under a climate of greatly reduced resources.

Program planning should logically start with goals and objectives, but in the past, this has rarely occurred. In general, a fundamental reexamination of goals and objectives has not been necessary given the generally stable state of political military relations between the superpowers. Due to the major changes in the international political climate, we should also expect to see the U.S. debate whether or not its programming (or even wartime) planning should include a unilateral capabilities or automatically assume standing alliance or ad hoc coalitions and host nations. There is a tremendous difference in programming based upon the assumption that is made regarding this question.

Although the U.S. and NATO never had the opportunity to develop war plans for an environment that included forces envisaged under SDI, there is no need to delay immediate revisions of war plans for existing forces. There are significant changes to the international environment, especially the threat, and an urgent need to reduce defense expenditures - hence plans can be changed now. This specifically includes our desire and ability to change now the planned employment of strategic nuclear forces.

Do we need to target facilities and forces in nations that clearly are no longer enemies? It is a fair assumption that we formerly targeted Soviet nuclear forces deployed in Eastern Europe. Presumably, we have technical ways to preclude nuclear warheads from exploding in the former German Democratic Republic now that this territory is part of a NATO member nation. But have we applied common sense to the nuclear targeting of other national areas?

What political benefit would be gained from targeting areas where restless nationalities are already struggling against the national government in the USSR? Will the Soviet military assume that these areas and Eastern Europe are "safe havens?" Will the USSR create targeting plans for areas in formerly allied nations? Can both sides change their targeting fast enough to respond to rapidly changing political events? Do we have to render inoperative warheads in missiles with multiple warheads to both meet our objectives of destroying military targets yet avoiding collateral damage?

Similarly, in the conventional realm, there is an obvious need to immediately revise existing war plans since NATO now controls both sides of the Fulda Gap. Indeed, General Galvin told the DPC that "it is clear that the old General Defense Plan is useless, and I have already rescinded it." NATO has now been asked to respond to a request for assistance in the defense of a member nation, Turkey, from a non-Warsaw Pact threat -- Iraq. Did plans for such a contingency exist? There are obvious components to conventional war planning that should be revisited and need not await programming decisions.

Conventional war planners should also be already changing the focus of their efforts from the "big" war with the USSR to the regional contingencies outlined in the JMNA. War planners have traditionally devoted most of their efforts to planning for the most demanding and least likely scenarios -- they should now devote the bulk of their efforts to the most likely and less demanding. This redirection in efforts will not come easy and may require some different types of expertise. New contingency plans are needed soon so that program planners can have C-in-C inputs to force requirements, i.e. the forces desired for contingencies may not be the same as we procured for the "big" war.

Conventional war planning in the United States, unlike nuclear war planning, has generally been done by professional military forces, without significant direct civilian

involvement.⁹³ The Chairm of the JCS and the warfighting C-in-Cs should reconsider this situation and seek active interaction with the civilian community to make meaningful contributions and immediate changes to conventional war planning.

Specifically, strategists, political scientists, area studies specialists, economists, etc., probably can all provide immediate assistance and advice to the military to adjust current planning scenarios and war and contingency plans. The military has traditionally been able to perform this task in-house, but with the phenomenal changes in the international security environment and the preoccupation of the bureaucracy with Operations DESERT SHIELD and DESERT STORM, assistance from the "outside" may be required.

If left to their own devices, it is possible that the bureaucracy will be tempted to ensure that current war plans support planned future programs and the existing organizational structure. Many civilian "outsiders" that could help are the numerous government employee faculty members at the war colleges, service academies, research laboratories, and similar institutions. These individuals are **not** from "outside" the government and many have security clearances and a great deal of expertise.

The Chairman of the JCS already recognizes that a revolution has occurred in the international security environment. This requires the immediate transfusion of expertise from the civilian community to the military. We cannot afford the luxury of wait-

ing for new officers who have recently studied these affairs, to cycle through the graduate education and War College processes; nor is the contracting and consulting community the government's best source for new ideas. This involvement by civilians in military affairs already occurs with nuclear program and war planning, and general forces program planning. Although previous proposals for such involvement from individuals within the Pentagon have been made before,⁹⁴ they have always been defeated.

NATO nations and the USSR also should involve their civilian academic communities with military planners. It is my experience that some other armed forces and perhaps even the intelligence community are more comfortable with this model than is the American or Soviet military. This is not the time to draw distinctions between who should be involved in the debate over fundamental goals and objectives. In World War II, the U.S. and allied armed services drafted, or otherwise secured, the services of academics who had years of area experience that the military lacked. What is going on in the world has not been seen by the existing bureaucracy. The time to repeat the involvement of outsiders is now.

An alternative model would be for the military to allow or invite the political leaders of their nations to dictate the revised goals and objectives. While there are some political leaders and a great many advisors available to intelligently discuss and decide nuclear strategy issues, most civilian leaders

lack the requisite background in conventional warfare to know what is possible and what is not. The military perspective is that the military **must** participate in the debate. The military should also involve civilian specialists in areas from which they have traditionally been left out.

Impact of Operations DESERT SHIELD and DESERT STORM

A decade ago, when the U.S. initially prepared contingency plans for its Rapid Deployment Force, many observers feared that the deployment of significant military forces to the Middle East would move forces simultaneously committed to the defense of Europe. War planners feared an outbreak of hostilities in the Western TVD at the same time U.S. forces were arriving in Southwest Asia. That nightmare would tax America's capability to redeploy forces, or deploy forces remaining in North America, to Europe in time to influence the war. Despite some 541,000 personnel deployed to Southwest Asia and the new force levels associated with CFE, there has been a dearth of commentary from Europeans worried about this issue. If we can afford to place more combat troops in the Middle East in early 1991 than we had in Europe at the height of the Cold War, should we not assume that European NATO nations have accepted the diminution of those forces in Europe to deter a war today?

Operation DESERT SHIELD demonstrated that the U.S. can initially muster sufficient assets from the continental U.S. to meet a major contingency where there were no forces in being. Indeed, General Powell drew this parallel in both his December

speeches at RUSI and AFCEA.⁹⁵ The initial deployment of forces in Operation DESERT SHIELD also seemed to demonstrate that such a force does not require basing overseas, such as in Europe⁹⁶ although additional forces did redeploy from Europe and other overseas locations to the Middle East. The developed ports, airfields and available petroleum in Saudi Arabia may not be available at future contingency locations -- cautioning us to not necessarily use these operations as a model for the future. It will take analysis of Operations DESERT SHIELD and DESERT STORM to make a definitive statement on the issue -- but we should review the President's new national security strategy and the associated force structure now that these two Operations have run their course.

Once DESERT SHIELD and DESERT STORM after-action reports are written, analysts will try to answer the question what systems appeared to make a difference in the political and military outcome. Successful use of the *PATRIOT* anti-missile system is one that has already suggested to many the value of anti-ballistic missile (ABM) systems for the continental U.S.⁹⁷ Systems that did not make a major contribution to Operation DESERT SHIELD and DESERT STORM will need to be reevaluated for upgrading or cancellation and replacement. Under the new national security strategy to reconstitute capabilities useful in a Europe-centered global war with the USSR, there will be no need to retain systems that do not have a dual use in the Contingency Force.

There appear to be a number of obvious areas for research with regard to lessons learned. Some of the more obvious are whether or not a land campaign was truly required or could our objectives been accomplished with airpower alone? Are reserve air forces staffs needed if they will never be deployed? What lessons do the Soviets claim that they have learned from our experience? Both sides will obviously study the lessons learned, especially of the Air Campaign, and see if adjustments to military art are required. If the lessons are that significant, we can expect to not only see the U.S. consider revisions to the new national security strategy, but also the Soviet Union start their internal military doctrine debate anew.

There is a significantly reduced life expectancy for the equipment used in the desert for the recent Operations. If the equipment used in the Middle East is brought back to the U.S., is it stored in sealift ships quickly deployable to a future crisis or is it given to the reserves? If the size of the reserves really goes down as a result of the new national security strategy and "base" force, what do we do with the excess equipment? If the personnel in the Middle East return to the U.S. to be demobilized, do we leave their equipment prepositioned in Saudi Arabia or offshore in ships or do we bring all of it back as well?

Another significant impact of Operation DESERT STORM will be a significant alteration in the resources that were assumed to be available for defense programming. When the new national security strategy and "base" force were initially discussed by staffs

in Washington, planners simply could not have known the level of military activities that would be shortly undertaken in the Middle East, the need to replenish some stocks of war materials and equipment, and the costs involved with cleaning sand from our equipment, mobilizing reserves and providing for post-conflict veteran's entitlements -- just to name a few. Simply put, if the driving force for the new national security strategy was a realization that defense dollars will decrease, then DESERT SHIELD and DESERT STORM will further add to the problem.

New Requirements for Intelligence

The changes suggested by the Bush Administration, if accepted by the U.S. Congress, will place an enormous burden on the intelligence community. Although one might argue that logically, concomitant with such fundamental changes intelligence appropriations should increase, it is probable that they will decrease like defense spending.

President Bush's remarks in Aspen are **programming** remarks and do not reflect changes in the **current** defense plans for the U.S. or U.S. forces which would fight today under NATO. The intelligence community will still need to provide all of their traditional services until the new international security environment takes hold. This fact should satisfy critics who will complain that we are overlooking the Soviet threat or that the events that we see in the USSR are simply a ruse or represent an attempt to secure a breathing space prior to a massive rearma-

ment. In short, there is a current intelligence requirement that remains well focused on the existing Soviet threat.

In addition to providing intelligence products vis-a-vis the USSR to support current war planning, the intelligence community must also provide new products to support programming for the future Atlantic Force. For example, we need quick rough answers to approximations of how much the USSR will devote in the future or is devoting to defense, given other needs. Naturally, the intelligence community has been attempting to provide this information all along, but with new information available, we can perhaps refine our assessments. Similarly, we need to identify the new international goals and objectives that serve as the requirements for future Soviet forces. Perhaps the time has come to jointly game with the USSR the deescalation of crises.⁹⁸ If we do this, we will need to "game the game" before hand in order to not give away more than we expect to learn.

The bulk of the U.S. and NATO national intelligence communities are oriented toward understanding and countering the Soviet threat. Although it took many years, the West eventually grew sophisticated at understanding the Soviet perspective on doctrine, strategy, arms control, and the like. Our intelligence agencies and associated policy offices are substantially less competent at analyzing, predicting behavior, and conducting net assessments for the rest of the world. Obviously that situation is already remedying itself vis-a-vis Iraq, but there remain many areas of the world for which this conclusion remains true. The

Contingency Force will need strong supporting intelligence capabilities.

We need more in-depth intelligence capabilities for new areas of the world. Deficiencies in this area should be corrected, and quickly. Is the intelligence community prepared to provide players in seminar and war games that can represent the behavior of nations other than our traditional enemies?⁹⁹ We recently felt comfortable enough with our knowledge of the USSR to create artificial intelligence-like models to represent Soviet behavior in expert systems that substituted machine actions for human behavior. Are we ready to do this for non-Soviet actors?

Flexibility in shifting intelligence assets from one set of collection targets to rapidly emerging priority targets is essential to support the contingency response element of the President's new national security strategy. Continued unimpeded access to space underlies support for the use of American military forces and has been identified by General Powell as one of the key supporting capabilities.

Intelligence activities include more than collection and analysis. There is the obvious area of counterintelligence; actions taken to thwart the activities of foreign intelligence services. As the Soviet military withdraws from Eastern Europe, their overt military intelligence collection efforts will suffer, necessitating a shift to covert programs. For many reasons, the

U.S. prefers to categorize its own covert action; i.e. intelligence support to foreign intelligence services, political actions, propaganda, and paramilitary actions, as an intelligence function rather than a routine province of statecraft. Are the Western intelligence services ready for expanded counterintelligence and covert action in areas that have traditionally not been in the limelight?

As the U.S. withdraws military forces from overseas and reduces its presence, there also will come a reduction in available military intelligence. The loss of these sources will need to be matched by new collection efforts. The Director of Naval Intelligence told the Congress in March, 1991, that: "It is time to rediscover classic intelligence collection using legal travelers, emigres, elicitation, the attache system, industry, academia, area expertise, and 'open sources'."100

As the intelligence community re-/enters new areas, it will have to make some adjustments in the manner that it does business. Formerly, when intelligence analysts differed, the debate could be settled by an assessment of the data. With political and economic intelligence, it is often the methodology rather than the data that settles disputes.¹⁰¹

We have to build capabilities to match our stated need for new types of information. Economic and other forms of strategic intelligence, for example, may become relatively more important than extremely costly technical intelligence systems designed to

provide tactical warning.¹⁰² The net impact of the President's new national security strategy is that the intelligence community may have to undergo a fundamental reexamination of its missions and priorities.

The U.S. possesses an excellent intelligence community which will need fine tuning and some redirection but is capable of providing the government with all of the necessary assessments. To involve the intelligence community with additional tasking in economic analysis will challenge that community, and it should be done with the full cooperation of existing organizations outside of government. The challenges of providing two years and other forms of warning should not be allowed to degenerate into a debate over the track record of the intelligence community. The nation will need a list of what is required to provide such warning and the political process will determine whether or not the resources will or will not be made available.

Requirements for Decision-Making

NATO used to talk in terms of a few days warning (the time to detect an invasion) and another few days for decision. Mobilization and return of initial American troops and air forces from the continental U.S. to Europe would take around 10 days. Hence the canonical 14-day scenario arose, with enormous effort devoted to the assessment of theater-strategic operations and campaigns that would be fought by forces that could be brought to bear. We became very adept at calculating theater-wide force

ratios for the first thirty or forty-five days of a war in Europe.

The question arises: how long would it take the Soviets to again be in such a position to cause the U.S. to worry about a European crisis that could escalate to warfare and perhaps be over within a month and a half? Similarly, how long does the Soviet military feel that it would need to respond to an unanticipated rebuilding of Western military potential in Europe?

From the March 1991 JMNA, it appears that in the event of a superpower crisis, the prime programming assumption is that armed conflict will not occur for at least 24 months. This is not exactly the same thing as assuming that we will have two year's strategic warning and response time; warning might be provided and ignored or warning might not be recognized. For programming purposes, however, U.S. planners should assume that the old theater strategic operation, or a surge operational-strategic level attack across the old inter-German border with the Pyrenees as goal, could not be mounted without the U.S. intelligence community obtaining and understanding indicators two years in advance.

For program planning, we also assume that during this two year period, the U.S. can reconstitute forces for defense of Europe while the Soviets are doing the same for their offensive capability. During that time, we assume that we can re-build forces and materials instead of maintaining them on active duty,

in the Ready Reserves, or prepositioned in Europe. U.S. forces reconstituted for a major war in Europe need only be sufficient to deter or defend against a Soviet attack - not launch a theater strategic offensive operation.

Succinctly, the need for the old, massive, short-term (14-day) mobilization has diminished. The threat planning assumption that once drove NATO toward a two-week mobilization requirement has been replaced with a threat, for programming purposes, that now gives the alliance two years to respond.

We need to more fully discuss this two years period. For example, should we assume that we will have two years to reconstitute forces from the time that strategic warning is provided and accepted by the intelligence community? If so, which intelligence community - the U.S., NATO, all NATO nations, or some new international command? Perhaps the assumption is two years following the government's accepting that something is wrong that needs to be redressed? Which government or governments and does NATO collectively have to agree to react? Is it two years assuming that we can find something significant and recognize it at the time?

Two years does not mean that the USSR cannot launch an intercontinental nuclear strike against the continental U.S.,¹⁰³ or an attack at the tactical or perhaps even the operational level in Europe in less time than that. There is probably some

period of time associated with still realistic, but lesser, threats from the Soviet Union that is less than two years and more than two weeks. A major regional contingency involving the USSR in Europe should be and is in our program planning contingencies.

Indeed, the U.S. should include in its family of programming scenarios a major regional contingency involving the USSR in Europe but limited only to that theater. This will be new for navies. Program planning for a major single region contingency involving another global seapower will involve new thinking -- in war situations, navies could hardly be expected to keep the fight limited to a single theater. That program planning assumption will now also need to be made by the sea services.

Even accepting the ability of the intelligence community to provide a two years strategic warning, there is controversy over what governments will do when faced with the inconclusive evidence provided initially. In October, General Galvin told a group of former NATO headquarters officers that two years warning time should be looked at in the context of the warning provided to and the response made by the United States from September 1939 to December 1941.¹⁰⁴ Post-Stalin Soviet military authors are never reluctant to remind their readers that despite overwhelming intelligence evidence of an impending invasion by Nazi Germany, and despite the recommendations for mobilization from his military staffs, the USSR was not prepared for the invasion that actually did take place in June 1941.

If Western history of non-reactions to rearmament by totalitarian nations and violations of arms control agreements is a guide, we should assume that democracies will: (1), delay decisions to rearm for many good reasons - such as different interpretations of ambiguous intelligence data, the desire to deescalate a crisis, etc., (2), deny that a change in the behavior of a former opponent has taken place or, if it has, is not strategically significant or not precisely a violation of an agreement, and (3), even suppress the intelligence and findings of facts that do not support government policy.

A major lesson from previous arms control agreements is that they not only limit necessary preparation for deterrence, but also deter democracies from exposing totalitarian nations openly violating such agreements. During the inter-war period, Germany, Italy and Japan built many warships exceeding limits set forth in arms control and other treaties, clear violations actively hidden by at least one major democracy. For example, Britain had an Italian cruiser in its Gibraltar drydock, weighed it, found it in excess of the 10,000 ton treaty limit, and hid its findings.¹⁰⁵ In yet another case, the Admiralty continued to record the incorrect but treaty-compliant tonnage for the German battleship *BISMARCK*, even **after** it was sunk and the Royal Navy's Intelligence Division had examined the surviving ship's logs and crew.¹⁰⁶

Linking the behavior of a nation to a formal agreement, such as arms control, takes the reporting and interpretation of data away from the intelligence community and makes it the province of lawyers and politicians. For years, these individuals debated whether or not a Soviet radar was in compliance with the ABM Treaty, despite no apparent change in the data provided by the intelligence community. We heard that there were different interpretations of ambiguous data, that the violation was not strategically significant or not a precise violation, or that even if true, the fact should not have been reported since it undermined the arms control process. In the end, the Soviets themselves admitted that the radar was a violation. Had this radar not been linked to an arms control treaty, it is very likely that the assessment of its intended purpose would have been the routine province of professionals.

We will need to make a study of the decision-making patterns of nations when faced with decisions similar to one that NATO governments will face when presented with ambiguous evidence which, some might argue, constitutes "proof" that the USSR, or the Russian Republic in a new USSR confederation, is violating the "understandings" or treaties that codify the new international security environment. NATO reactions will be inhibited by the arms control and confidence building measures that we adopt over the next few years.

War planners, unlike program planners, are not **required** to use "best case" assumptions and are therefore authorized to

formulate their plans on less optimistic suppositions. Hence, redirection of programming planners to the "best case" (two years warning) does not necessarily influence war planning for current forces. Nor does it necessarily deny governmental decision-makers access to alternative intelligence assessments based upon current capabilities rather than program assumption intentions.

The military should include in their family of actual war plans, plans based upon the track record of their governments acting courageously in response to provocation. For example, the military is not limited from drafting internal war plans that assume that authorization for the mobility of existing forces and the mobilization of reserves will not be granted until the commencement of hostilities.

Decision-making studies to support program and current war planning should span the gamut of possible scenarios. At one end of the spectrum is the "worst case," of NATO reconstituting its forces within the two years predicted, but withholding the authority to mobilize forces out of garrison and respond to tactical warning until an attack by the USSR takes place, is verified, reported to the national and allied command authorities, and an authorization to respond is communicated to the field. In this scenario, we assume that the Soviet military machine was able to come back strong and perhaps even be "invited" into Eastern Europe.

The related "best case" would be if all forces were allowed to report to their NATO-assigned positions, ready for a stillborn Soviet threat generated during two years of economic and political chaos. Perhaps in this situation, NATO might have an option for offensive tactical and even operational-level warfare against the USSR.

At the other end of the spectrum is the other "worst case," of a USSR that takes a full two years to rearm in such a manner that it obtains a significant advantage in its estimation of the correlation of forces and means. The scenario would assume that NATO nations failed to make bold decisions when faced with ambiguous evidence by the intelligence community. The associated "best case" would be a NATO that made the bold decisions and matched the Soviet regeneration with their own. Both sides would then be fully reconstituted and on a wartime command and control footing and deployment.

There are numerous other scenarios that need investigation. Despite the lack of credibility accorded a "bolt-from-the-blue" ground attack by the USSR during the new international security environment, we should analyze this scenario to develop intelligence indicators we should monitor to ensure against such a possibility.

It is even conceivable that Eastern European nations might ask Soviet, or Russian, troops back into their nations¹⁰⁷ to counteract what they perceive to be a threat from Germany. That

scenario can build upon existing studies. Differences with today's scenarios might include reconstitution at national locations but failure to deploy forces from home garrisons and allow their transfer to NATO. Other possibilities include using portions of the programmed Pacific and Contingency Forces in addition to the Atlantic Force to respond to a European crisis.

War planners will also wrestle with how much time and what type of decisions are necessary during the initial combat actions in a crisis, before forces are either called up from the reserves or reconstituted in full. During this period, presumably both superpowers would act defensively. How long should we assume that this period will last? Should we have one set of assumptions for programming and another for war planning? It is very likely that programming will assume a longer defensive period than do operational war planners.

NATO exercise and simulated military decision-making has traditionally assumed that the alliance political structure would make decisions, which would then be carried out by near-simultaneous actions taken by all member nations. In a restructured NATO alliance that is more political than military, and exists in a new international security environment, NATO and national military commanders might have to make future plans based upon a likely decision-making process that has member nations making unilateral actions prior to those of the alliance as a whole.

National decisions taking preeminence in turn, would require Alliance planning for sequential rather than simultaneous military operations. Similarly, planning for allied, or combined forces, military operations may take second place to national planning. Future military planning by NATO may stress combined or joint operations but with forces retained under national command. All of these topics are currently being discussed by the appropriate military commands.

Crisis decision-making should also be reviewed with the lessons of the post World War II era firmly in mind. Not all crises will require decisions at the same pace; some crises are slow to build, others are more fast-paced. Some crises occur with armed conflict imminent while others happen after the outbreak of hostilities. Measured responses need to include the full gamut -- from a minor show of force to a major insertion of all types of troops. Scenarios need to be looked at that include a favorable outcome to a worst-case response. A building-block approach would appear to be an appropriate analogy.

These and other scenarios should be augmented with the most sophisticated techniques available to learn lessons of wars and campaigns yet to be fought. An artificial history could be written of alternative futures so that the military can better advise their political leadership on the most suitable courses of action for decisions they should make today.

Technological Requirements¹⁰⁸

In the new political-military environment, the American public is predictably less likely to sustain a major overseas military presence or combat in foreign lands. If future crisis scenarios assume host nation and coalition support, we must also plan to resolve these crises expeditiously and withdraw. Hence, requirements will demand high technology weapons systems using robotics and artificial intelligence so that if engaged in combat, American casualties are minimized and the crisis is resolved in an rapid manner. As Admiral Jeremiah reminded us in December, without the Soviets to spur on continued investment in hardware, the rate of obsolescence in deployed systems will slow down - perhaps permitting us to make technological leaps instead of concentrating on marginal improvements. America's smaller armed forces should be provided with the most technologically advanced equipment.

Perhaps this is the time to revisit President Reagan's dream of a defense-dominant world.¹⁰⁹ Deployment of the ABM Treaty-compliant antiballistic missile system should be the first step rather than the Administration attempting to argue for both the need for strategic defenses and the available technology necessary for GPALS. Once there is a national consensus on the value of defenses and a Treaty-compliant system is actually fielded, the U.S. can move in the direction of more costly programs - but incrementally.

Technologies that were considered not as useful under the former political and international security environment may be more interesting in the new world. For example, with numerous overseas bases, offshore basing technologies received just modest interest.¹¹⁰ With the possibility that many American forces may return to North America, the U.S. may want to more fully investigate the capabilities of offshore basing concepts.

With the demise of the old NATO-Warsaw Pact scenario and the prospect of numerous arms control agreements, the requirement for some technologies may diminish. For example, if the Soviet Union actually accepts mutual **assured** destruction, demonstrated by their giving up strategic air and missile defenses, we may not need to invest in countermeasures to penetrate those defenses and attack strategic offensive forces. Similarly, if warhead numbers are driven low enough, perhaps we can abandon the search for increased accuracy.

With NATO armies on both sides of the old inter-German border, some of those systems necessary for AIRLAND Battle should have lower priorities. On the other hand, some of the technologies that were identified with NATO follow-on forces attack (FOFA) may still be useful in future out-of-area contingency operations. An integrated task force made up of all the services might benefit from technologies that were designed to conduct simultaneous operations over the full breadth and depth of the battlefield.¹¹¹ The intelligence community will need to provide an assessment of areas of the world where such technologies might

prove useful. An unbiased review of both technologies and systems associated with the AIRLAND Battle and FOF, will need to ascertain which are appropriate under the new national security strategy.

The U.S. government is concerned with maintaining an edge in defense technologies.¹¹² It has previously identified key technologies that should be protected, and routinely tracks our relative standing in these areas vis-a-vis the Soviet Union. We have recently expanded our comparison of our technological standing to include allied nations, developing countries, and Eastern Europe.

Expanded technological comparisons necessitate new analyses from the intelligence community and will require new efforts to ensure that the appropriate technology is protected. Technologies available for what remains of military competition could improve so dramatically in the next few years that the fundamental nature of warfare may change. Competition in military hardware may shift from the nuclear arena to the non-nuclear. As non-nuclear weapons become more capable, they may substitute for nuclear weapons at the tactical, operational, and even the strategic level. All nations will attempt to retain their technological lead in key areas, including some which formerly did not require protection. If protection of emerging technologies is too restrictive, it can stifle initiative and progress. A balance

needs to be maintained between the need to protect technologies and ensure growth.

Economic technological competition with other nations will continue despite the new international security environment.¹¹³ While there has been a clear effort to limit the spread of technologies to the Eastern-bloc, we will likely see wholesale changes in the management of militarily significant commercial products through the Coordinating Committee for Multilateral Export Controls (COCOM). Existing national legislation will require amendment, and new legislation is clearly going to be required to deal with the myriad of questions that will arise when former socialist states apply for access to technologies once forbidden to them for outdated ideological and military reasons. Governments will have to fundamentally revise policies to transfer key technologies to certain nations for economic advantage, not military balance of forces.

We could all benefit from a Presidential Blue-Ribbon Panel synthesizing key technologies to explicate and validating their importance in the new political-military environment. Such a panel might attempt to tackle the more difficult question of balance between protection and growth. Perhaps many we thought critical can be downgraded. Still, if we are to reconstitute a significant combat capability against a world-class adversary, then perhaps we need to identify those technologies that we should yet protect.

Research & Development

Considering the record of all nations in producing major weapons systems, it seems obvious that a fundamental restructuring of the defense procurement processes is also required. In the past, industry often sought or took the leading role in exploring technological opportunities and charged such research to overhead for major programs. With the numbers of major programs likely to be severely reduced, a new mechanism is required for basic research and initial development. To change the leading role in military R&D, governments will have to reverse a major downward spiral in this category of spending.¹¹⁴ Indeed, General Powell stated in his December speeches that defense R&D are one of the four underlying support capabilities of the new national security strategy.

Another possibility is to have government set up major design bureaus and internalize R&D responsibility itself -- perhaps specializing in areas devoid of normal civilian spin-offs. The Navy used to do this in the 1930s when its Naval Aircraft Factory did prototyping and both the Aircraft Factory and shipyards provided "yardsticks" by which to measure contractor performance. An alternative strategy is to continue those operations in the private sector and provide hefty government funding. Perhaps state and local governments can be persuaded to invest in R&D as well. The objective is to retain technology capability in numerous areas and the production capability in a few.

In any case, the output ought not be a family of senescent designs aging on the shelf, but rather fully operational prototypes which will normally never enter full scale development. In some cases, limited production runs may be necessary to ensure that production experience is maintained. In most cases, product improvement programs should be included in the prototype program. A prototypes development program should ensure that both the capability of assembly is maintained and a dynamic R&D program continues.

The Soviets have also been worried about the same thing as they convert former military industries to civilian production. Rear Admiral Yu M. Khaliulin, Deputy Commander of the Black Sea Fleet, told Soviet President Mikhail S. Gorbachev at a November 13, 1990 meeting with military people's deputies, that a naval ship be built every year or two at newly "converted" shipyards, just to retain the capability to do so.¹¹⁵

Such a shift in defense procurement in the USSR will place new challenges on our intelligence community. What do we do when we see evidence of new hardware but cannot predict whether or not it will be followed on by a procurement program? Keeping multiple possible products on the shelf is also a good competitive strategy that will force an enemy to match all possible threats instead of just a few. This of course works both ways and may prove as justification for otherwise unwanted armaments. This shift to worrying about possible "breakout" is not altogether new, but will shift the emphasis of our collection efforts.

That programming environment will require a new understanding of the partnership between government and industry. It will require major changes in the charters of many R&D and programming agencies to allow easier adaptation of commercial technologies into the defense sector and the continued flow of defense technologies into the civilian world. It will also likely require changing defense regulations to allow profits on R&D and prototypes.

Investment Strategy and Conversion

The major implication of the two-year big war warning of a Europe-centered global war with the USSR is that American programming strategy will shift its focus to the threats presented in other areas of the world. Until now, the unstated relationship of the threat to programmed forces was, generally, that U.S. forces would meet the challenge of the most demanding threat, the USSR, and assume that they could also cope with lesser contingencies. That basic assumption was generally not entirely true and now will be essentially reversed: forces will be acquired to meet the challenges of the more likely, less demanding, threats assuming that they are useful against the more unlikely but greater threat posed by a Soviet Union that decides to rearm.

This will be a new planning assumption for America, new for its allies, and somewhat impractical for the near term - or until we see substantial changes in Soviet maritime and nuclear force

structure to match what we know are reductions in the ground and air forces. The intelligence community will need to advise Western governments when their strategic nuclear and maritime postures can be relaxed.

There will obviously be a fundamental restructuring of the near-term programming already contracted, and there may be extraordinarily high penalties paid as industries move from the defense area to others. Programs such as the B-2, A-12, the YF-22A, and other advanced technology aircraft, the SSN-21 *SEAWOLF* submarine, the follow-on to the *TRIDENT II* (D-5) missile, and other programs such as *TACIT RAINBOW* tied to the AIRLAND Battle, would appear related to an international security environment that no longer exists.

There will be last-ditch attempts to salvage certain programs, arguments that previously programmed forces are what is needed in the new "base" force, and attempts made to simply keep people employed and legislative districts satisfied. This will be a great challenge to the new Congress -- which should play its larger role instead of narrow constituent interests.

An obvious next step for the DoD is to provide incentives for the services to cease attempting to rejustify old programs under the new national security strategy but to actually do a zero-based needs assessment. An obvious second step is to plan for the divestiture of unnecessary forces, equipment and industrial capability. There will be a great temptation to tie the

reduction in capability to arms control -- both for reasons of merit and in order to delay or perhaps derail reductions.

Implicit in the reconstitution portion of the new national security strategy is the retention of capability to produce equipment and supplies that have not been maintained. Not all firms will have to convert, nor should they be allowed to convert to the civilian non-defense sector. Government could regulate the decline but it appears prepared to allow the market to determine survivors.¹¹⁶

Some firms will manage to convert to the civilian sector. The assisted conversion of defense businesses to the civilian sector is a highly charged process. If a firm can produce tanks and another knows how to produce automobiles, why subsidize the uninitiated to do what there are competent firms already doing? Conversion assistance schemes abound, with proposals to use independent R&D funds for everything from non-military ventures to fully-funded programs.

For those firms that manage to convert, with or without assistance, there will be significant cultural adjustments. Government contractors often have the customer providing capital for specialized facilities and equipment. This is not normal procedure in the commercial market. In the defense industrial world, requirements often advance the state of the art whereas in the commercial market, state of the art is limited by costs and

competition. The two environments have drastically different financial structures and supporting infrastructures capable of preparing proposals.

Defense contractors are often organized along narrow compartmentalized, functional lines with little awareness of the overall program. Many firms do business in both worlds but there is little interconnection of personnel. Government and civilian contractors both agree that there is a significant problem converting personnel from one culture into being successful in the other. It is also likely that management cannot make the transition.

A downsizing of the defense industry after Vietnam War production ended was followed by massive displacements of professional and technical specialists. Conversion efforts then consisted largely of acquiring non-defense firms and attempting to expand into new markets. Most conversions failed, but primarily at the plant level. The cultural shock was either too great or the technologies offered by the defense firms simply were not needed.

The wholesale demobilization of military personnel into the civilian job market has been accomplished in the United States, with mixed results. Appropriate temporary programs will be needed to ensure that we manage the transition smoothly to support new national industrial and business goals.

Some industrial and military facilities inevitably will be idled and made obsolete by this new national security strategy. We can anticipate massive environmental cleanups at particularly dirty facilities, such as industrial sites used for the manufacture of weapons grade plutonium. The staggering costs of these efforts will make them economically unattractive for private peaceful use. Clearly, the government will have to assume the burden of these costs.¹¹⁷

The conversion of defense plants, and other government capabilities, should be studied by a Blue-Ribbon Panel assisted by industrial and professional associations. This effort goes beyond similar panels that have suggested acquisition reform since, in this case, the government must ensure that defense-critical industries are identified and it should make certain the capability to produce is retained.

Reconstitution

Reconstitution has three essential sub-components: mobilization, military force reconstitution, and industrial reconstitution. Mobilization will provide the ability to respond to crises with an active duty and reserve force mix. Much more attention should be paid to ensuring that the reserves can respond, then return to their disrupted civilian occupations without loss of families, homes, and jobs. Existing legislation should be reviewed following the completion of Operations DESERT SHIELD and DESERT STORM.

Military force and industrial reconstitution, however, are areas in which the U.S. has not had active interests for some years. Reconstitution must provide, primarily in the European theater - but not only there, additional forces and military hardware for a major war with the assumption that no combat takes place for two years. Reconstitution time goals can be somewhat vague; since what is really required is that we need to convince the Soviet Union, and European nations, that we can reconstitute a credible deterrence/defense faster than the USSR can reconstitute their offense. Reconstitution in Europe is only possible with a continued alliance structure such as NATO.

According to Admiral Jeremiah's March Congressional testimony, the new cadre reserve divisions will be able to restore combat ready status in 12-18 months. The individual ready reserve or conscription will obviously be a low cost methods of managing the necessary manpower pool required for reconstitution. Additional goals for reconstitution will obviously be provided as staffs wrestle more with the concept - but some initial areas to investigate might include: sealift and intertheater airlift, strategic air and missile defenses, and short-range and naval nuclear weapons.

More difficult will be the maintenance of a cadre of leaders, and how they will obtain the necessary military leadership training at appropriate levels of command, when there are fewer forces to command? Schools are an obvious solution for the

officer corps and senior non-commissioned officers, but will the services keep schools funded when faced with giving airmen flight time or sailors actual time at sea? Service schools may have to be consolidated for efficiency but perhaps there are even more novel solutions.

If the officer corps is to be significantly reduced below current levels, eventually a level is reached at which it is no longer efficient to maintain military-run graduate schools, war colleges, and individual services flight training. A similar problem exists with special and limited duty, non-commissioned, and warrant officers, technical schools, and some government laboratories. Obvious suggestions to consolidate DoD facilities are already under consideration but perhaps other government agencies might consolidate with defense.

The Department of Energy maintains laboratories, the Federal Aviation Agency has aviation facilities, inter alia. Expanding the student body may even take the form of training and education of military students from former socialist nations -- attempting to provide them with both the technical details and the framework for a military operating within a democracy.¹¹⁸ The intelligence community would be able to take advantage of this opportunity to learn more about the capabilities of the Soviet and other foreign military services. Increasing the number of foreign students attending military schools may also be a way of improving our own language training capabilities.

One possible solution, rather than consolidation or expanding the student base, is an affiliation of defense schools and laboratories with select civilian institutions, and the innovation of mixed civilian-military educational and research institutions that can be "reconstituted" to pure military or government facilities within two years. We may not need large numbers of officers and technical specialists trained during peace, but the model for the reconstitution of industry might well be applied to military training and education.

Another solution is to raise the level of basic research being conducted at these institutions so that a substantive faculty remains onboard and can shift to teaching duties when required. Keeping special and limited duty, non-commissioned, and warrant officers active in research at industry, or mixed government-industry design bureaus, can maintain the nucleus of a capability that may be required on short notice. Similar arrangements can be made with government graduate schools to increase their research and still return quickly to teaching. These possible solutions beg for a Presidential Blue-Ribbon panel to study the options and make non-partisan recommendations.

Some of the military capability that America and her allies need to retain should be contained in existing active duty and ready reserve forces. On-hand equipment and supplies for those ready forces is needed. Some of the equipment and supplies will need to be stockpiled and prepositioned. Maritime prepositioning

offers flexibility that has recently been demonstrated in the Middle East. However, not all of the materials for all types of war need to be readily available.

Implicit in the President's new national security strategy is the capability of tooling-up for wartime production within two years for a major war in Europe and less than that for lengthy contingency operations. General Powell stated in December that this ability to reconstitute was one of the critical underlying supporting capabilities of the new national security strategy. This capability will consist primarily of the knowledge, skills, and tools to respond within the timelines now specified.¹¹⁹ This concept is not new and we should review the history of planning assumptions and industry's ability to respond in the 1930s.¹²⁰

Dr. Fred Ikle, former Undersecretary of Defense (Policy), was a proponent of preprogrammed crisis budgets and industrial responses to bridge the gap between peacetime and wartime.¹²¹ Industrial mobilization, instead of military mobilization or the deployment of troops, might form the basis of an adequate governmental response to ambiguous warning indicators. Ikle proposed a series of industrial alert conditions, similar to those found in the military, which would trigger specific actions. Actions would be less threatening because they would not result in an immediate increase in military capability.

A "graduated deterrence response," the term used by General Butler, could well involve a "graduated industrial response."¹²² This response is not the same type of response that the government has already ordered in 1987 under the Graduated Mobilization Response (GMR) concept -- that program being used to support national mobilization for crises and war with existing forces and strategies.¹²³ GMR remains a high priority program to support regional contingency response. There is no reason contracts cannot be let ahead of time for both a response to a major war and for contingencies.

Although we can speak abstractly about having plans and passing budgets ahead of the need to do so, economists must help government ascertain how much money would be required to reconstitute the defense industry. If that money is earmarked for other purposes, then financial planning should include tracking sufficient governmental short-term money that can be quickly diverted to defense -- if the GMR and reconstitution part of the new national security strategy is to have teeth.

Industry and government should decide on a basic strategy consonant with our ability to support a defense industrial base and our investment in new technologies; and both must be comfortable with their new nonconfrontational roles. Government should ensure that industry **remains capable** of retooling and delivering military products within two years or less.

The government record of abandoning major production programs is a travesty, and it is likely that unless consciously addressed, we will permit the destruction of most capability. Notable examples include the Apollo and Saturn 5 programs, where facilities, equipment, hardware, stores, instrumentation, data files, test stands, etc. were destroyed and all technical teams were dispersed.

Many military contractors have been provided government-owned equipment or have charged the development of facilities and equipment to military contracts. If the federal government wishes to have these facilities retained, mothballed, or perhaps even improved, then it should provide incentives. Ownership of government equipment can be transferred to industry, or management of facilities can be turned over to government. If retained by industry, federal, state, and local tax laws will need to be revised to reduce or eliminate taxes on idle property and land.

Industry will continue operations, meanwhile, on projects that have no direct defense application and simultaneously be asked to maintain the expertise necessary to produce military associated equipment within specified time limits. Keeping this expertise will require innovative measures -- perhaps even joint government and private repositories of knowledge at taxpayers expense. This requires new and innovative approaches to intellectual property rights. The Department of Defense has allowed defense contractors to retain title rights for inventions while reserving the right of license-free use. If we mix federal and

private sector research, we may have to allow federal employees to benefit from royalties for work that is produced while on government time.

Making the two year response time a reality may require abandoning military design specifications (MILSPEC) in many areas. We may have to acknowledge that, to meet the deadlines, readily available commercial products may be substituted. For areas that clearly require specifications, the old system should be retained.

The reconstitution of industrial capability appears to be the single most demanding element of the new national security strategy. The March 1991 JMNA states that "it would likely be 6 to 24 months before industrial base mobilization or surge production could begin to deliver critical items. . .by the end-FY 1997, it is estimated that it would take 2 to 4 years to restore production capability to 1990 levels for items whose lines have gone 'cold'." Fortunately, the Soviet Union is rated with the same capability. Clearly, the U.S. will have to design programs to monitor the ability to meet reconstitution targets, to test capabilities, to enhance the credibility of our response and to monitor the Soviet ability to do the same.

Reconstitution is fundamentally oriented toward the U.S. contribution to the defense of Europe in the face of a regenerated Soviet conventional threat. The U.S. need not reconstitute

the 1990-era conventional force it had forward-deployed to Europe. New technologies, especially in air breathing systems, may offer the same or even increased combat potential with fewer ground troops. Nuclear weapons, especially those based at sea, and maritime forces offer the U.S. an ability to fully meet its military commitment under the North Atlantic Treaty without an extensive deployment of any ground or air forces on European soil.

Stockpiles

Technologies are not the only economic assets whose protection has been justified in terms of the military. Our National Defense Stockpile is supposed to provide the U.S. with guaranteed access to critical strategic minerals for three years. We feared both disruption during a long war with the USSR and lack of access during the so-called "resources war" that never occurred. Interestingly, although we can claim that critical components should also have been stockpiled, no such program ever existed.¹²⁴

Our National Defense Stockpile of strategic minerals had its genesis well prior to the Cold War, but can it be justified for sound economic reasons? Other nations, like Japan, Sweden, and Switzerland, maintain similar reserves for economic reasons but, some years ago, a major study of the goals and objectives of our stockpile concluded that a less costly option to ensure access to materials included international development agencies, diplomatic

efforts to ensure stability of major minerals producers, without significant budgetary costs.¹²⁵

Perhaps why we maintained such reserves had more to do with domestic politics than true defense needs. In any case, the entire program should be revisited and one of the options should be a carefully controlled sale of major portions of the stockpile to reduce the federal deficit.

The U.S. strategic petroleum reserves have been justified for economic rather than military reasons. On the other hand, the Rapid Deployment Force and numerous military programs have also been justified to ensure America's access to oil. Given competing needs for tax dollars, it seems a prudent planning assumption that the Congress may not fund both a refill of the petroleum reserve and General Powell's Atlantic Force to ensure we have access to oil.

It seems equally appropriate to review the goals and objectives of our means that provide sufficient quantities of oil -- but to only fund one. If we had an oil reserve capable of supplying all economic and military needs for one or two years, instead of the current unmet goal of 90 days, would we also have time to either mobilize additional reserves for or reconstitute a more capable Atlantic Force? If our oil reserves were this high, would we have intervened in Kuwait?

DoD Organization

If changes of this magnitude persist, it would seem obvious that the Department of Defense is going to undergo another soul-wrenching military services roles-and-missions reappraisal. From a reading of this year's Service Secretary's and Chiefs of Staff posture statements, it is obvious that the Army was more attuned to the new strategy and "base" force than were the other services. The absence of serious discussion of the new national security strategy by the other services in their posture statements is, frankly, remarkable - given the fact that the Aspen speech occurred almost six months earlier.

No matter how painful, the review of roles and missions will occur, implicitly with budget decisions or explicitly if we dare. Does the U.S. need a separate service called the Marine Corps and if we do, should it remain as a part of the Department of the Navy or move to the Department of the Army? Should new services be created - such as space or special operations forces or do we instead field the recommended four new forces made up of multiple services operating under joint military strategies?

Since the Air Campaign was so successful in Operation DESERT STORM, can we finally put to bed the recurring suggestion to revisit the decision to have a separate Air Force? Recognizing the success of the Air Campaign in Operation DESERT STORM, can we explain why naval aviation appears to have been relegated so many support instead of combat missions and why the integration of

naval aviation in the Air Campaign was handled in the manner that it was?

The Chairman of the JCS told his ADPA audience and Army Times in April that the new four military forces do not necessarily represent new C-in-Cs, but there is the obvious question of whether or not we need the current number and geographical disposition?¹²⁶ Probably more than any other issue associated with the new national security strategy and "base" force, the review of the Unified Command Plan (UCP), which divides up the world into C-in-C areas of responsibility, has more flag and general officer's attention than anything else.¹²⁷ Similar concerns in the NATO command structure also need to be addressed.

The new national security strategy and "base" force suggest that we revisit the existing wartime command and control structure for theater and functional C-in-Cs.¹²⁸ Do we need warfighting C-in-Cs for the entire world? With asymmetrical reductions in force structure **should** come a loss of organizational influence.¹²⁹ Such changes will obviously affect all joint military and intelligence organizations.

Even after we settle the UCP, there are obvious other important questions. For example, if we retain the existing plan, should SACEUR automatically be an American? A good case can be made by some Europeans that he should not. If we shift to the new structure for an Atlantic Force to replace the Commander-in-Chief, U.S. Forces, Atlantic (USCINCLANT), then should this

commander automatically be a naval officer. Does that include a Marine? If a majority of strategic nuclear offensive forces are sea-based and all strategic nuclear forces will belong to a single command, should that commander be a Navy officer? If the Pacific is destined to remain a maritime theater, it will obviously need maritime leadership.

In addition to these obvious organizational questions, we need to address what type of individual should be involved in this major overhaul of the defense planning assumptions? The military should provide individuals who can both represent service interests and capabilities and have an appreciation for the task at hand. This exercise cannot be just another interagency meeting, with compromise likely and one service holding the entire process hostage to their threats or objections.

This review will have serious repercussions in existing force structures and established plans for future forces. It is going to hurt and will require officer participants willing to put their allegiance to country ahead of combat arms or service parochialism. These individuals exist in the peacetime services and they generally are already networking outside of official channels.¹³⁰ Perhaps we need to review our entire system for training and educating weapons systems acquisition managers and more fully integrate basic political science type issues that were assumed constant in the past.

Problems with the quality of existing DoD strategic planning or politico-military personnel have been discussed frequently and should have been solved by Goldwater-Nichols Act and two administrations committed to implement this legislation. The fundamental review of national military strategy will test this assumption. The low level of public inter-service infighting over Operations DESERT SHIELD and DESERT STORM indicates that there has been success in this area.

Past problems occurred at all levels, with political appointees, within the services, or both. Some political appointees have caused problems because of their relative inexperience, high turnover rates, and lengthy vacancies. The position of Under Secretary of Defense (Policy) during the Reagan Administration remained unfilled for an extended period following the resignation of Dr. Fred Ikle. Friction between the experienced military and the relatively inexperienced political appointee in the past could be exacerbated when those political appointees preside over the wholesale dismantling of a military machine that senior officers have spent their entire careers building and defending.

The Transition Period

Before we get to the "new world order," we need to manage a transition period that gets us from here to there. There will be numerous problems in reaching a consensus on what this new world will look like; but given that such a consensus is possible, a plan needs to be devised about how to get there. The new national security strategy and the "base" force are the Administra-

tion's first attempt to articulate the goals. They do not yet attempt to plan for the transition.

Given the Administrations's goals, American social scientists must now quickly provide rough answers to approximations of how much **can** be devoted to defense, given other pressing national needs. The initial answer has been provided by the Administration and the Congress - a 25% reduction is in order. This is not necessarily the final answer, however. We may find that there are compelling reasons to not make such deep cuts so quickly (Soviet recent behavior is one such reason) or that such success follows our initial reductions that we should reduce even more.

The intelligence community and civilian academics outside government should rapidly provide assessments of all the threats to U.S. interests in areas of the world traditionally relegated to official inattention. Initially, planning for non-Soviet contingencies will be assessed in terms of Operations DESERT SHIELD and DESERT STORM but recent actions in Southwest Asia may prove to be the exception rather than the model of the future.

When President Reagan outlined his visions of a world without nuclear ballistic missiles, or a defense dominated security environment, it was necessary to look not only at those individual scenarios but also to think through the painful transition from the current state of affairs to the new one. One scenario that should have been considered was a USSR that attempted to

militarily "prevent" deployment of strategic defenses because of Soviet fear of the new security environment. After looking at this scenario, analysis should have yielded conditions necessary to make the USSR secure during this transition stage.

We will need to look carefully at Soviet reaction to our rosy view of the "new world order." Although the Soviet Union appears to be an economic basket case incapable of influencing external events, it **does** retain a massive military capability that should not be ignored. Simply put, we should work very closely with Soviet leaders to ensure that they are comfortable with the transition to a non-confrontational world that may, in fact, be less stable than the past.

Arms Control

Governments should have an integrated defense and arms control agenda. We should not attempt to delay planned military cuts in order to achieve an arms control agreement. Parallel unilateral actions by both superpowers is an acceptable model for action. Arms control should only be engaged in if it can be demonstrated that the agreement will contribute to the defense of the United States, the decreased likelihood of war, the reduced consequences of war if one were to nevertheless break out, or a concurrent reduction in costs.

The new national security strategy will present some interesting challenges to traditional arms control wisdom. For example, although both sides may wish to significantly reduce their

nuclear arsenals, they may also desire to be able to reconstitute additional capability. Indeed, a "quick fix" for an unseen or unchallenged Soviet regeneration or reconstitution is that of naval and air force nuclear weapons deployed to Europe. We may find military commanders even recommending retention of empty ICBM silos in order to reconstitute land-based nuclear capability within two years. These empty holes would offer verification difficulties and if this recommendation is made and accepted, it would require revisiting the SALT I Interim Agreement.

We are currently engaged, or will likely soon engage, in arms control negotiations or unilateral steps in lieu of arms control in virtually every warfare area. Yet virtually none of these agreements will reduce the threat to the U.S. in theaters outside of Europe - the very area that we say is our primary focus for defense programming!

Military Operations Research and Analysis¹³¹

The operations analysis and political science communities will need to cooperate like they never have before.¹³² Military operations analysis has previously concentrated on investigating issues posed in a political-military environment that was not subject for debate. Those assumptions are no longer valid. The old European-based war scenarios with two weeks warning and mobilization are simply not of very much interest anymore.

The military operations analysis community needs to reorient itself to measurements of regeneration and reconstitution where the timelines are measures in months and years and not days or weeks. Strategic warning, decision making, non-NATO battlefields (ashore and at sea), manpower and personnel planning, resource allocation, test and evaluation, combat models, and gaming and simulation are all areas that will need fundamental readjustment due to the new international security environment.¹³³

One technique for viewing alternative futures is that of path gaming. These are political-military games that identify interesting alternative paths to a desired future and examines them simultaneously with different groups of players. Gaming, naturally, is no substitute for solid analysis. Gaming, however, can provide new insight and supplements more traditional methods of dealing with alternative futures.

Governments will become more refined at using means, other than military forces, to influence the behavior of other nations - hence these tools will also need to be studied as a part of our "graduated deterrence response." A recent Soviet forum "Civic Control Over Security," sponsored by the magazine Mezhdunarodnaya Zhizn and the School for the Strategy of Socio-Intellectual Enterprise in Rostov-on-Don, highlighted the vulnerability of the USSR to economic sanctions as the USSR becomes tied into the world economy and less self-sufficient.¹³⁴ In short, the military operations research community will need to integrate itself

into analysis involving other tools of statecraft rather than considering itself a discipline that can exist unto itself.

For example, new research may evaluate how successful economic sanctions have been in the past¹³⁵ and as a supplement to Operation DESERT SHIELD. Apparently, sanctions were not as successful as some would have desired since the U.S. and allied coalition nations launched Operation DESERT STORM. What is the appropriate mix of economic sanctions as a precursor to military operations and a follow-on, once the military campaign is completed? Economic tools are even more difficult to use than in the past as multi-national corporations become less responsive to national governments. The intelligence community will have to provide new types of information to decision makers to allow them to assess the capabilities of economic and other sanctions.

In short, military operations research and analysis will become more complicated and require the cooperation of specialists in other disciplines. This will mean that the government should devise a strategy to manage all of the studies that will be done as we learn what is required of our transition to the "new world order."

Critical Success Factors

There appears to be four main problem areas in which solutions portend success for the President's dream. The first is that everything depends upon the responsible and good behavior of the Soviet Union. It may not be desirable to have your fundamental national security strategy so dependent upon the behavior of the once "evil empire" but, for any of this to work, the Soviets must return to their homeland, remain inwardly focused, and continue the serious reductions in military capability they have started.

Specifically what is meant by the continued "good" behavior of the Soviet Union will be debated. Clearly, additional draw-downs in naval and strategic nuclear systems must follow soon. The continued inability to mount an offensive theater strategic offensive operation in Western Europe should be the key determinate. Internal behavior of the Soviet Union toward its own population and marginal "cheating" or non-compliance with arms control measures should not be grounds to derail the new national security strategy.

It would appear that Soviet behavior can be modified to allow the transition but recent (December 1990 - January 1991) events portend other possibilities. Without continued inability of the USSR to directly and seriously threaten Western Europe with a theater strategic offensive military operation with exist-

ing forces, the President's new national security strategy is simply not appropriate.

The second critical area demands that the intelligence community must be able to surmount the new challenges. If funding for intelligence follows defense downward, then the reconstitution portion of the new national security strategy is bankrupt. The intelligence community should move into spheres they have traditionally under-emphasized, such as the Third World and economics. They will also have significantly increased burdens demanded by the monitoring and verification of compliance of arms control agreements. All of this is possible if decision-makers recognize this crucial underpinning of the new national security strategy.

The third area that can undermine a successful transition to this new world will be the international behavior of allies and the U.S. Congress. Clearly, none of this is going to happen without Congress onboard. Secretary Cheney's efforts to articulate the new national security strategy are designed to ensure that the Department of Defense is ahead of Congress and that the new policies are adopted.

Defense cuts have normally been performed in a "salami"-like fashion -- across the board. The new national security strategy strongly suggests asymmetrical cuts. Reductions in all government programs have been made in the past without reference to existing or suggested government policies. Without an articulat-

ed national security strategy by the Bush Administration, the Congress would probably: (1) cut across the board, or (2) decide on their own version of a new national security strategy and make asymmetrical cuts in accordance with that strategy. Clearly the Bush Administration has no choice but to present to Congress a strategy for the defense of the U.S. and then participate in the normal budgetary and political debate that will result.

If our European and Asian allies attempt to keep our forward presence there, and their contribution to their own defense lower than it should be, they will likely attempt to exploit our separation of governmental powers. The debate over retaining a forward overseas presence for U.S. forces has generally assumed the nature of presumptions made by each side; i.e. unquestionably we need to maintain a permanent presence, or, clearly we can now return all the troops home. In the debate over retaining an overseas presence, all sides should explain the rationale, the benefits, and costs of their points of view.

The final critical success factor is the ability of private industry to deliver. What is envisaged is not the same as industrial mobilization. We need to both save our defense industrial base under very new conditions, and simultaneously reduce defense spending. How can we do this when the Administration is not willing to address the need for a national industrial policy? Reconstitution of U.S. industrial capabilities will be insuffi-

cient -- international reconstitution will be necessary for overseas suppliers of finished goods and raw materials.¹³⁶

Major changes in the way we do business are required to retain both our technological position in the world and the personnel necessary to meet newly defined defense needs. By withdrawing forces from overseas and promising to reconstitute within two years and return, the United States will have fundamentally changed its international political-military posture. If upon internal investigation, it appears that we cannot fulfill this promise, then the U.S. government should keep this conclusion under wraps, endure the open-source critical debate and criticism that it will face, and keep this declaratory strategy operational.

The President's new national security strategy is a programming concept that supports the continued reliance on deterrence of war as the cornerstone of American security. There are those who doubted that the U.S. would ever actually use centrally-based nuclear weapons for the defense of Europe -- perhaps a President would have never decided to actually do that. Deterrence strategies are influenced greatly by perceptions; under the new national security strategy, it will be important to maintain the perception of our ability to reconstitute. Just as in the past, programs, deployments, exercises, and literature evidence will need to be provided to support deterrence.

Impact on the Navy¹³⁷

From this look at the Presidents's new national security strategy and the Chairman's recommended "base" force, it appears that the U.S. Navy will change the least. This does not mean, however, that the Navy can sit out the debate on roles and missions since it will not be effected by either - it will.

The Secretary of the Navy, the CNO, and the Commandant of the Marine Corps have obviously internalized the new national security strategy and the "base" force ideas and indicated their willingness to become partners in the new directions that the DoD are taking.¹³⁸ The Secretary has even suggested that: "Given continued changes in the Soviet Union, we eventually expect to see a diminished open ocean anti-submarine warfare threat. . .With changes in the world order and our own strategy, it is appropriate to re-examine the top-priority emphasis we have previously placed on countering the Soviet submarine threat."¹³⁹

The Secretary of the Navy and the CNO told the Congress in February that a 451-ship Navy could provide 2-3 aircraft carriers, 2-3 amphibious ready groups, 25-30 surface combatants, and 14 nuclear powered attack submarines (SSNs) on permanent forward deployment.¹⁴⁰ The CNO's 30% deployment rate means that he used around 50 available submarines in order to achieve 14 subs routinely on deployment - a far cry from the recent goal of 100 SSNs or even the fallback position of 80-90.

The Secretary of Defense and the Chairman of the JCS have been using all the right Navy missions in their public pronouncements -- maritime superiority, power projection, and sea control. If Secretary Cheney and General Powell truly agree with these concepts, then the Navy should capitalize on that and not focus on second order issues involving specific programs or the UCP. Unfortunately, it seems apparent that elements in and associated with the Navy have fired a broadside at both the strategy and the "base" force - due to programming and UCP issues.

The May 1991 U.S. Naval Institute Proceedings/Naval Review 1991 contains a series of articles that make it clear that the authors understood most, but not all, of the new concepts and did not embrace them. Rear Admiral J.C. Wylie, U.S. Navy (Ret.) wrote a brief commentary entitled "Head's Up, Navy"¹⁴¹ in which he essentially told the Navy to circle the wagons and defend itself against the attack it faced from the Air Force, the Army, and specifically the Chairman of the Joint Chiefs of Staff. The commentary is placed prominently as the first substantive article. Another article enumerates Navy weapons systems that are in serious jeopardy because of the new strategy and "base" force.¹⁴²

For the submarine community, the shift in top priority from antisubmarine warfare means that the goal of 80-90 or 100 SSNs, previously justified assuming a European-centered global war with the USSR, must find new rationalization.¹⁴³ The U.S. Navy faces an extremely difficult task over retaining the full SSN-21 SEA-WOLF program in a new international security environment focused

on regional crises. Since it currently is the only submarine shipbuilding program (OHIO class ballistic missile submarines are considered national systems and exist quite apart from attack submarines), attempts to cut the SSN-21 will be interpreted, therefore, as an attempt to cut the submarine force. Indeed, the April 1991 issue of the Journal of the Naval Submarine League contained a series of articles which sought to defend the submarine building program despite the new strategy.¹⁴⁴

The CNO told Congress that he has ordered studies to explore a new, lower cost option for a successor to the SEAWOLF. Since it would likely take 10-15 years to launch the first "SSN-X," we may see a maximum of some dozen or so SSN-21s built before a newer and **less-capable** class would be available. The U.S. Naval Institute Proceedings reported that the SEAWOLF program may stop with five or six boats.

Certainly there will be those that question whether we need even 14 deployed submarines at sea in our new crisis response-heavy strategy if we are only going to have the maritime capability to quickly respond with one carrier task force and a MEB? Granted that the submarine community can easily justify under today's concepts of operations what it could do with 7 submarines deployed simultaneously from the Atlantic and Pacific Fleets - the question is whether or not such deployments are too high given the paucity of surface and aviation units that will be routinely overseas in the future.

If the submarine community can make the case that it needs 7 deployed units, then the second order question is whether or not all of these need to be nuclear powered or some can be diesel-electric? Third order questions should be what specific hull design is used. Saving the industrial base is not a reason that the nation will build a significant number of very expensive SSN-21s.

New justification for the submarine force might include substituting for carriers called away for crisis response and direct integrated response in crisis areas performing: surveillance, power projection, delivery of special forces, combat SAR, evacuation of nationals or hostages, blockade interdiction of surface traffic, etc.¹⁴⁵ Rationalization for SSNs also involves GPALS since submarines are a high leverage platforms that can carry ICBM/submarine-launched ballistic missile (SLBM) interceptors which can catch missiles in the boost phase of flight. Perhaps we should consider ready reserve submarines. Using these and other more traditional missions, the submarine force can justify some total number of hulls that it needs before it proceeds to the specific types to be built.

If a principal reason for deployments is to maintain overseas presence, under the new expanded definition of presence, perhaps we do not need such highly capable submarines or surface warships. It has been standard practice for the French Navy to maintain low-capability forces on permanent forward deployment in

many areas of the world (e.g. the Indian Ocean) while the U.S. and Royal Navies generally cycle through high-capability forces on a scheduled basis. Each system has its advantages and drawbacks. The U.S. should at least consider whether the French system has any merit for its future deployment patterns under the new national security strategy.¹⁴⁶

Naval aviation programs are also in serious trouble - being referred to in the U.S. Naval Institute Proceedings as being in "Chapter 11".¹⁴⁷ The goal of 15 deployable CVBGs, the A-12, and upgrades for existing aircraft, previously justified by assuming a European-centered global war with the USSR, have already gone by the wayside. Naval aviation also must find new rationalization given the indirect assault by the Air Force and oblique questions being raised that Operation DESERT STORM could have been totally handled by land-based airpower.¹⁴⁸ A comparative assessment of the cost of weapons delivered successfully on target during Operation DESERT STORM might yield some interesting conclusions on the value to TOMAHAWK cruise missiles relative to manned aircraft. The rationalization for naval aviation should first be: what are the national missions that require aircraft at sea, then what types of ships should carry that airpower, and only then what type of aircraft are needed?

We should expect to see less support for traditional naval aviation programs and planned upgrades for existing forces as well. In other words, naval aviation programs also need to be

justified in terms of future contingency operations in the Third World - not just the way that they have for the past few decades. For example, our new training carrier, *USS FORRESTAL*, can be dual-committed to the Atlantic and/or Contingency Forces much as the *USS LEXINGTON* was once considered a back-up antisubmarine warfare aircraft carrier.

Although the sea services like to advertise how flexible they are, the fact is that we have designed much of our antiair warfare and air strike capabilities based upon the Soviet threat. Under the new program planning assumptions, justifying the need for air defense assets in terms of the threat of regiments of *BACKFIRES* is liable to create the impression that the Navy is unaware of the changes that have occurred in the world recently. The Navy still needs to defend itself against air threats but may not be allowed to procure active and ready reserve forces to defend itself against the "old" Soviet threat -- those forces will be "reconstituted," if necessary.

New justification for a modified carrier force might include, however, some roles against the revised, but still credible, Soviet threat; antisatellite warfare and defense against ballistic missiles. The Air Force has proven that aircraft can carry missiles that can reach into space -- why should some of these not be sea-based? Might not carrier aircraft carry GPALS interceptors which can catch ballistic missiles in the boost phase of flight?

Power projection in the new international security environment may not necessitate advanced strike aircraft operating from large deck carriers but rather Army and USMC helicopters operating from Navy surface warfare ships in conjunction with land-based Air Force fixed wing assets. On the other hand, why should not Navy LAMPS helicopters have an anti-tank mission? This suggests that interservice, in the new era, is much more important than allied interoperability - a major Navy priority and strength in the past. We should expect the smaller aircraft carrier (CVV/C^M) to once again be an issue for discussion. The future budget climate for the military will simply not allow the Navy to retain programs that it took for granted in the past or that it would rather have.

Maybe this is the time to once again consider re-integrating the aircraft carrier into the Single Integrated Operational Plan (SIOP) and adding sea-launched cruise missiles (SLCMs) to its arsenal? There were good reasons that naval aviation left the SIOP but those fiscal conditions no longer exist. We should study the successes of the use of *TOMAHAWK* during Operation DESERT STORM to fully understand how unmanned cruise missiles can enhance the performance of manned aircraft and not dismiss any potential mission out of hand.

Perhaps we should borrow an idea from the USSR and integrate aircraft carriers into continental air defense? There are strong bureaucratic and strategy reasons that this has not been done in

the past - and perhaps these no longer apply. The point for naval aviation should be to demonstrate its contributions to nationally mandated missions - expressed in terms of the new strategic directions.¹⁴⁹ Defense of the homeland will **always** remain a mission for the U.S. Armed Forces and the ability of naval aviation to supplement land-based air and extend the air defense envelope should not be ignored.

Another idea that we should also consider is ready reserve aircraft carriers that can be reconstituted with reserve air wings within 1-2 years. Reserve forces may not be as appealing as active ones, but as the budget ax falls, consideration should be given to naval aviation capabilities that can respond to the threats posed by a regenerated USSR or other similar high end threat.

It has already been announced that some naval surface escort forces necessary for more robust power projection will be put into a new Innovative Naval Reserve Concept (INRC).¹⁵⁰ The Navy plans to use eight FF-1052 KNOX class frigates as training ships with an additional thirty-two in a Reduced Operational Status (ROS) which would be available within 180 days. These forces are **not** reconstitution forces but rather reserve forces available for use in a lengthy contingency.

The U.S. Navy will have to decide upon the role that it desires to play with regard to riverine warfare. Does the Navy desire to take more of an interest in "brown water" operations or

will U.S. Special Operations Command (USSOCOM) continue to purchase hardware for Navy special forces? Does the U.S. Coast Guard desire a piece of the "brown water" action? If so, what arrangements will need to be made with the Department of Transportation to involve the Coast Guard as a part of the Contingency Force?

As a cost-cutting measure which allows retention of the industrial base, perhaps some Navy hulls might be not fully completed and instead put into deep storage where they could be "reconstituted" for a war with the USSR. It is likely that a robust shipyard capability, to repair battle-damaged fleet assets, may be part of the defense industrial base to be reconstituted and not fully maintained in peacetime.

It seems that we are headed toward an overall force structure and operational tempo (OPTEMPO) that will only support the ability of the U.S military to respond to 1 or perhaps $1\frac{1}{2}$ contingencies (not wars) with active-duty forces. Perhaps a more innovative approach can be taken with lift requirements? Government has already provided subsidies and other incentives to ship and aircraft owners and operators to maintain a military lift capability while continuing to operate their fleets in commercial trade. Perhaps future arrangements will include the government purchasing commercially inefficient but militarily useful shipping and allowing rotating commercial operations of this fleet by a contractor? Contractors could be subsidized to operate ships

while also performing routine maintenance and modifications to modernize the fleet.

In addition to the obvious programs on which the Navy has traditionally placed less emphasis (sealift, mine warfare, diesel submarines, etc.), there are some other candidates for review. In this "new world order," is there a place for major fleet vs. fleet engagements or will it be primarily fleet vs. shore? If long range weapons will make it less likely that major fleet forces will ever engage, there are probably some significant changes in order for our surface and other forces.

At his speech to the Comstock Club in September, Defense Secretary Cheney twice spoke of the need for naval **superiority**. In his testimony to Congress in February, the Chairman of the JCS (an Army General) discussed the need for maritime **superiority**.¹⁵¹ Secretary of the Navy Garrett's testimony to Congress in February eluded to the **possibility** that maritime superiority may not be affordable in the future: "Fiscal realities have also made affordability an important factor to be considered in sustaining maritime superiority."¹⁵² These sentiments were echoed by the CNO as well: "There should be no doubt that, if the continued decline in Navy funding, force structure, modernization, and personnel persists, we will reach a point where this nation will no longer be capable of maintaining the maritime superiority so vital to the support of our global interests."¹⁵³

Retaining maritime superiority does not mean that the United States will adopt an overall national maritime strategic outlook, positing heavy reliance on maritime forces to the exclusion of others, since the sea services can contribute to attaining political goals, but they cannot achieve them all. On the other hand, defense cuts under this new national security strategy should be asymmetrical and favor the sea services. Within the sea services, resources should also be allocated asymmetrically to favor those capabilities that are required under the new national security strategy.

Commands, however, will obviously not be allocated on a basis where the Navy has the majority. The Pacific theater has been declared a maritime one and the assumption is that it will retain a Navy C-in-C. If there is no serious maritime opposition to Navy forces at sea in the Pacific area of responsibility, is this assumption valid? Regarding the possibility of a new Strategic Force, although a majority of strategic nuclear warheads may be sea-based in the future, it is unlikely that the Air Force will be dethroned from command. At best, command of a future Strategic Force will rotate with the Navy.

Initial indications from the Vice Chairman of the JCS¹⁵⁴ indicate that the sea services do not have forces dedicated to the a future Contingency Force, except for lift and special operating forces. The Marine Corps may rethink this and decide that they would like to participate. The Army and Air Force have already indicated they would dedicate serious assets to contin-

gency response, making them the current leading candidates for command of a Contingency Force. If the sea services dedicate standing forces to a future Contingency Force, it would logically lead to a rotational command policy.

Perhaps the most serious debate will occur over the proposed Atlantic Force. By dedicating most U.S. Army heavy assets to this force, one could conclude that the Army sees the Atlantic Force as a land-oriented command with seapower as a significant but supporting element. The Navy will probably focus on the word "Atlantic" and argue that it should obviously retain its maritime character and command. The Navy might even be willing to surrender cognizance over the Caribbean and South American waters in order to retain the Atlantic command.

If the Atlantic Force is in fact primarily focused on regional response power projection in Europe and the Middle East/Southwest Asia, then perhaps the major peacetime commander should be oriented toward ground warfare with air and maritime commanders playing a subordinate role. After all, is there any serious threat to our maritime forces in this area of the world? If the Soviet (or some other) threat returns, it will be relatively easy to split the Atlantic Force into its land and sea-based components as a part of our reconstitution for a major global war originating in Europe.

On the other hand, in the new era of jointness, it can be argued that all the C-in-C positions could be filled by the best candidate from any service with no one single service having a lock on any specific job. Even if this would mean, in reality, rotation, the objectives of the Goldwater-Nichols Act may be more fully realized than if we retain current practices.

All of this might reopen old debates between maritime and continental strategies,¹⁵⁵ but the Navy should recall that it forms but one component of triadic forces that ensure U.S. national security strategy.¹⁵⁶ Under the President's new national security strategy, we are clearly marching down a path that will probably mean the end of unilateral naval intervention overseas. Naval forces are viewed under the new national security strategy and "base" force as being a part of a larger package. If the sea services are going to argue for the existing command structure and autonomous military capabilities, then they have the burden of proving that off-shore airpower, "can-opener" capability, and maritime C-in-Cs are still required in this "new world order."

Major changes to the international environment have led planners to a significant shift in the manner of addressing problems and issues. The first order questions, such as "what is America's role in the world, or the business and purpose of the Department of Defense," now demand answers prior to consideration of second order programming or efficiency issues, that have dominated the traditional defense debate.

America's new role in the world will widen strategic planner's horizons to considering issues more befitting planners of a major international superpower; such as the long-term competition between nations, the economic, political, legal, scientific-technical, and cultural aspects of competition, and uses of the military for other than a Europe-centered global war with the USSR. The U.S. cannot afford to indulge itself with "gold-plated" strategies capable of successfully dealing with all possible contingencies on its own.

The world may move to a more integrated political structure, or at least parts of the world will move in this direction. The U.N. Charter still contains the framework for national armed forces acting on behalf of the Security Council. Perhaps this is the time to consider regional and global cooperation as alternative models to the nation-state. The nations of the world rejected this direction when they failed to adopt the U.N.-sponsored Law of the Sea Treaty and its "Common Heritage of

Mankind" approach to certain types of "common" ocean resources. True, that approach was flawed, given the political realities of its day, but perhaps this is the time to amend international organizations, and see if they can do better than in the past.

Changes in the international environment will likely be more significant in the next twenty years than in the last twenty. Planning for the long-term requires a 10-20 year planning horizon. We cannot afford to lock up our strategic options with political and military assumptions or force structures that were developed out of a political world which no longer exists.

The fundamental shift in the way programming planners look at the world will lead to less emphasis on the USSR and Europe, a redirection toward other areas of the world, and managing day-to-day competition with other powers. All this will occur while the U.S. has significantly less capable tools in its kit. Rather than acting as a "Chairman of the Board" with our allies, America's appropriate future role may be that of "first among equals"¹⁵⁸ if it does not withdraw to the North American continent in splendid isolationism. If we elect to stay engaged in the world, is it likely that we will engage in "winning" the peace as we once prepared to "win" war? If so, it implies the creation of a truly integrated and nonconfrontational governmental and commercial planning process.

Problems in American defense planning have, for some time, provoked calls for more and better planning. Evidence of plan-

ning problems is found in four major areas of Department of Defense planning: strategic goals and objectives that lacked clarity; a functional organizational design which impedes mission integration; overemphasis on budgets and programming needs to the detriment of overall policies and strategies; and ignoring other agencies, competitors and the external environment. We have the opportunity to and should improve the quality of our national strategic or long-range planning while we answer the call made by the President at Aspen.

A major planning problem was a lack of a coordinated effort to integrate the government's primary goals, policies and action sequences into a cohesive whole. Analysis and review of America's fundamental role in the world should force the DoD to solve this basic problem, at least temporarily. Sound strategic management, of which strategic planning is but one component, integrates an organization's principal goals, policies and action sequences into a cohesive whole. It marshals, allocates, and shapes an organization's resources into a unique and viable posture based on its relative internal competencies and shortcomings, anticipated changes in the environment, and contingent moves by intelligent opponents. Strategic management is concerned with the management of the whole enterprise, not just its functional components or sub-parts.

The U.S. government has not developed truly successful and coherent defense, industrial, scientific, engineering, oceans,

etc. policies since the end of the Second World War. Yet, we do have a successful agricultural policy and supporting programs. The federal government has also successfully managed complicated programs for space exploration, rural electrification, and transportation. This is the time to once again exercise leadership and provide guidance and support for success.

It becomes a challenge for the organizational leader to combine and direct the efforts and activities of the other members of an organization toward the successful completion of a stated mission or purpose. It is this type of effort that we will see the Bush Administration attempt to perform while it undergoes a fundamental restructuring of America's role in the world, and missions for its military forces. It will be this effort, not the old roles and missions, that NATO political leadership will have to understand to deal effectively with the United States as it undergoes internal self-examination.

In contrast to most other types of planning, strategic management also analyzes an organization's external environment and internal climate, searches for new trends, discontinuities, surprises, and competitive advantages. Since its scope is broader than other types of planning, it typically embodies more qualitative shifts in direction than anticipated from the long-range planning process. Also guided by an idealized vision of the future, strategic management is much more action oriented. The organization attempts to keep its options open, considering a

variety of possible alternatives to respond promptly to unforeseen contingencies as it seeks its ideal.

Long-range planning which has typified NATO planning in past decades, on the other hand, focuses more on specifying goals and objectives, translating them into current budgets and work programs. The objective of long-range planners (and short-range planners for that matter) is to work backward from goals to programs and budgets to document the sequence of decisions and actions necessary to achieve the desired future, embodied in the goals. Long-range planning, as a consequence, assumes that current trends will continue into the future and plans tend to be linear extrapolations of the present. Clearly, this is no longer feasible since our objectives appear to be changing.

To be effective, strategic management assumes certain necessary conditions. Among the conditions are: an agreement, or at least consensus, on goals and objectives; a process by which the organization can scan its environment, monitor trends, and assess its competitors; a management information system based on an integrated communication and control system; and a review and monitoring process to determine whether the current strategies are viable or should be revamped.

The top-down vision of the future, outlined by the President in Aspen, will usher in governmental political-military goals and objectives. The major players will be both domestic and international, and it is likely that a consensus will be reached. It is

uncertain which group or groups will dominate the debate but the American public's willingness to sustain heavy defense burdens concurrently with large domestic programs (including the Savings & Loan bailout) should not be assumed in the absence of a clear and present danger.

Effective strategic management is not possible without responsive and timely feedback. The debate over the President's new national security strategy should include an analysis of the political goals sought by the forward deployment of U.S. forces, and the political environment that compelled the formulation of America's alliance structure. If those goals have been attained, if the international environment has drastically changed, then it should not shock anyone that the fundamental strategy and resulting force structure are subject to wholesale renegotiation. That it is being done in a thoughtful and comprehensive manner, with the full participation of domestic interests and allies, should be comforting.

Much legislation will be required as a result of the changes in the international system - so this exercise is not going to occur only in the Executive Branch of government. The two government branches can cooperate or they can assume an adversarial relationship. Congress will cut forces and programs - with or without a carefully thought out plan. The Executive Branch must present all possible options for cuts to the legislature - even those that wrench the very souls of the leaders of a particular

combat arms or military service. The Administration appears to be prepared to meet this challenge.

The assumption of two-year's strategic warning will be debated and perhaps never fully resolved. What the Administration has really done with this assumption is to make it explicitly clear that in order to absorb a 25% cut, we will need to make an assumption of this magnitude. If nothing else, it will force the Congress and the American public to recognize exactly what we are buying into with the new national security strategy and "base" force. One hopes that the dramatic changes are recognized in the USSR as well.

Should the services refuse to present realistic plans to the DoD, or play end-around games with Congress, the cuts will be made anyway. The services could find themselves playing catch-up, and redrafting strategies from whatever forces the resulting legislation permits. The looming debate should be about goals and objectives, realizing that they do not have to be what they were in the past. If we are realistic about these goals and objectives, there is every likelihood that we can reach a consensus on force requirements. If we engage in debate over force structure, we will perhaps stumble into a strategy that will not serve the national interests in the 21st Century.

Notes

- (1) The views expressed by the author are his alone and do not necessarily represent the position of the U.S. government, Department of Defense, or the U.S. Navy.
- (2) "Remarks by the President to the Aspen Institute Symposium" (as delivered), Office of the Press Secretary (Aspen, Colorado), The White House, August 2, 1990, 6 pp.
- (3) Karl von Clausewitz, On War, trans. by O.J. Matthijs Jolles, New York: The Modern Library, 1943, Book VIII, Chapter VI, p. 596.
- (4) Dick Cheney, Secretary of Defense, Annual Report to the President and the Congress, January 1991, p. 3.
- (5) Michael Gordon, "Pentagon Drafts New Battle Plan," New York Times, August 2, 1990, p. 1. According to this year's DoD annual report to Congress, the Defense Planning and Resources Board (DPRB) apparently did play a role in reviewing the new strategy.
- (6) John D. Morrocco, "New Pentagon Strategy Shifts Focus From Europe to Regional Conflicts," Aviation Week & Space Technology, Vol. 133, No. 7, August 13, 1990, pp. 25-27. This article has depth similar to that found in Michael Gordon's article in the New York Times. The President's Aspen speech and the "base" force were also reported, but without a great deal of depth, in the Washington Roundout section of Aviation Week & Space Technology, Vol. 133, No. 6, August 6, 1990, p. 15. The strategy was also covered in Europe in "The Defence Budget: Choice Cuts," The Economist, Vol. 316, No. 7667, August 11-17, 1990, pp. 28-30. Interestingly, Aviation Weeks & Space Technology reported on significant forthcoming cuts in forces prior to the President's Aspen speech. See: John D. Morrocco, "Cheney's 25% Force Reduction Plan Could Spur Further Spending Cuts," Aviation Week & Space Technology, Vol. 132, No. 26, June 25, 1990, pp. 24-25.
- (7) "Remarks by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, at the National Convention of the Veterans of Foreign Wars, Baltimore, Maryland, August 23, 1990," as delivered, 13 pp.
- (8) "Remarks by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, at the 72nd Annual National Convention of the American Legion, Indianapolis, Indiana, August 30, 1990," as delivered, 21 pp.
- (9) "Remarks as Delivered by Secretary of Defense Dick Cheney, International Institute for Strategic Studies, The Homestead, Hot Springs, Virginia, Thursday, September 6, 1990," News Release, Office of Assistant Secretary of Defense (Public Affairs), 7 pp., and notes made by author, who was in the audience, of additional remarks.

(10) "Review of Military Strategy," TASS Report contained in Moscow Pravda in Russian, September 8, 1990, 2nd Ed., p. 4 (FBIS-SOV-90-176, September 11, 1990, p. 16).

(11) Office of Assistant Secretary of Defense (Public Affairs), "Remarks as Delivered by Secretary of Defense Dick Cheney, to the Comstock Club/Air Force Association, Sacramento, California, Thursday, September 13, 1990," No. 444-90, 5 pp.

(12) Office of Assistant Secretary of Defense (Public Affairs), News Release, "Secretary of Defense Dick Cheney, San Francisco Bay Area Council, San Francisco, California, September 14, 1990," 10 pp.

(13) "Remarks by Defense Secretary Dick Cheney to the Pittsburgh World Affairs Council," October 30, 1990, Reuter Transcript Report, 5 pp.

(14) "Speech to the Center for Defense Journalism, The National Press Club, September 27, 1990, by Lieutenant General George L. Butler," 17 pp. General Butler was recently selected for his fourth star and as the Commander-in-Chief of the Strategic Air Command.

(15) George L. Butler, "Adjusting to Post-Cold War Strategic Realities," Parameters, Vol. XXI, No. 1, Spring 1991, pp. 2-9.

(16) N. Belan interview in Tulan on October 18, 1990 as reported in "I Look Ahead With Optimism," Moscow Sovetskaya Rossiya in Russian, October 19, 1990, 2nd Ed., p. 5 (FBIS-SOV-90-208, October 26, 1990, p. 4); A. Sychev, "'We Too Are Changing,' U.S. Defense Secretary Richard Cheney at the USSR Supreme Soviet Committees," Moscow Izvestiya in Russian, October 19, 1990, Morning Edition, p. 4 (FBIS-SOV-90-203, October 19, 1990, p. 7); M. Zakharchuk & A. Pershin, "At the USSR Foreign Ministry Press Center - Yazov and Cheney: Discussion on Peace," Moscow Izvestiya in Russian, October 20, 1990, Union Edition, p. 4 (FBIS-SOV-90-205, October 23, 1990, p. 15); Major M. Zheglov, "Visit Over," Moscow Krasnaya Zvezda in Russian, October 21, 1990, 1st Ed., p. 2 and Moscow World Service in English, 1210 GMT, October 22, 1990 (FBIS-SOV-90-205, October 23, 1990, pp. 16-17); TASS Report, "Secretary Happy," Moscow Pravda in Russian, October 26, 1990, 2nd Ed., p. 4 (FBIS-SOV-90-211, October 31, 1990, p. 5); and TASS Report "Pentagon's 'Five-Year Plan'," Moscow Pravda in Russian, November 1, 1990, 2nd Ed., p. 5 (FBIS-SOV-90-212, November 1, 1990, p. 5).

(17) General Colin L. Powell, U.S. Army, Chairman, Joint Chiefs of Staff, "Enduring Defense Needs," The Retired Officer, Vol. XLVI, No. 10, October 1990, pp. 22-30.

(18) General Colin L. Powell, USA, Chairman, Joint Chiefs of Staff, "All Elements of Total Force Give Military Prowess," The Officer, Vol. 67, No. 2, February 1991, pp. 12-16.

(19) "Remarks by General Colin L. Powell, Chairman of the Joint

Chiefs of Staff, at the Royal United Services Institute for Defence Studies, Whitehall, London, 5 December 1990 - The Eisenhower Centenary Lecture: Military Realities and Future Security Prospects," as delivered, 19 pp.

(20) "Remarks by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, to the Washington Chapter of the Armed Forces Communications and Electronics Association (AFCEA) -- The Shoreham Hotel, 14 December 1990," as delivered, 29 pp.

(21) General Colin L. Powell, "The Eisenhower Centenary Lecture: Military Realities and Future Security Prospects," The RUSI Journal, Vol. 136, No. 1, Spring 1991, pp. 17-21.

(22) "Remarks as Delivered by Admiral David E. Jeremiah, USN, Vice Chairman, Joint Chiefs of Staff, at the President's National Security Telecommunications Committee (NSTAC) at the Loy Henderson Conference Room, Department of State, 13 December 1990," 10 pp.

(23) General Donald J. Kutyna, USAF address to the "12th Western Conference and Exposition - Space Day - San Diego, CA - 24 January 1991," OASD/PA #91-0294, 23 Jan 91, p. 2. The "Base Force" appears on slides 1-2.

(24) "Base Force Idea is 'Tailored to New and Enduring Strategic Realities'," Aerospace Daily, October 9, 1990, p. 39; Jessica Eve Budro, "Military Feels Shut out of Planning: Service Resentment Brewing Over Powell's Base Force Plan, Say DOD Sources," Inside the Pentagon, October 11, 1990, p. 1; Stephen Aubin, "Analysis: Perestroika for the Pentagon," Defense Media Review, October 31, 1990, p. 3; Rick Atkinson, "Stand Up, Sit Down, Fight, Fight, Fight," The Washington Post National Weekly Edition, December 21, 1990 - January 6, 1991, pp. 31-32; Charles W. Corddry, "Even as Navy Builds up its Middle East Forces, a Drastic Build Down is Being Eyed by Planners," Sea Power, No. 34, No. 1, January 1991, pp. 2-13.

(25) "Statement of The Secretary of Defense Dick Cheney, Before the House Armed Services Committee, in Connection with the FY 1992-93 Budget for the Department of Defense, February 7, 1991," 13 pp. & 15 slides; and "Statement of General Colin L. Powell, Chairman of the Joint Chiefs of Staff, Before the Committee on Armed Services, U.S. House of Representatives, 7 February 1991," 18 pp.

(26) "Statement of the Secretary of Defense Dick Cheney, Before the house Appropriations Defense Subcommittee, in Connection with the FY 1992-93 Budget for the Department of Defense, February 19, 1991," 13 pp. & 15 slides.

(27) Stenographic Transcript of HEARINGS Before the Committee on Armed Services, United States Senate, Hearing on the Defense Authorization Request for Fiscal Years 1992 and 1993 and the FY 1992-1997 Future Year Defense Plan, February 21, 1991, 153 pp.; and "Statement of the Secretary of Defense Dick Cheney, Before

the Senate Armed Services Committee in Connection with the FY 1992-93 Budget for the Department of Defense, February 21, 1991," 22 pp. & 15 slides; and "Statement of General Colin L. Powell, Chairman of the Joint Chiefs of Staff, Before the Committee on Armed Services, United States Senate, 21 February 1991, 19 pp.

(28) Dick Cheney, Secretary of Defense, Annual Report to the President and the Congress, January 1991, 134 pp.

(29) "Statement of I. Lewis Libby, Principal Deputy Undersecretary of Defense (Strategy and Resources) in Connection with the New Defense Strategy, HASC Defense Policy Panel, March 12, 1991, 18 pp.

(30) "Statement of Admiral David E. Jeremiah, Vice Chairman of the Joint Chiefs of Staff, Before the Committee on Armed Services, United States House of Representatives, 12 March 1991, 15 pp.

(31) Office of Assistant Secretary of Defense (Public Affairs) News Release No. 204-91, "Remarks by Secretary of Defense Dick Cheney, at Walsh Lecture, Georgetown University, Washington, D.C., Thursday, March 21, 1991 - 8:00 P.M. (EST)," 10 pp. The Secretary departed from his prepared remarks at this lecture and instead talked about Operation DESERT STORM. His prepared remarks were submitted for the record and made available to the public.

(32) Joint Chiefs of Staff, 1991 Joint Military Net Assessment, March 1991.

(33) "Remarks by General Colin L. Powell, Chairman of the Joint Chiefs of Staff, to the American Defense Preparedness Association Board of Directors, Reception and Dinner, The Omni Shoreham Hotel, Washington, D.C., 3 April 1991 - As Delivered, 20 pp.

(34) Jim Wolfe, Army Times, April 15, 1991, p. 4.

(35) "Chairman, JCS Testimony to Defense Base Closure Commission," April 26, 1991, 25 pp.

(36) For an interesting commentary on a "miniature think tank" within the "Joint Chiefs," see Rudy Abramson & John Broder, "Four-Star Power," Los Angeles Times Magazine, April 7, 1991, p. 20. This report generally focuses on General Powell but also contains references (p. 60) to the new "base" force and Powell's apparent attempt to get the issue "out on the table quickly, even before Cheney was ready to discuss it publicly." The reference to the think tank within the "Joint Chiefs" is probably a general reference to the Joint Staff.

(37) "Statement of the Assistant Secretary of Defense for Force Management and Personnel, Honorable Christopher Jehn, Hearing Before the Defense Subcommittee, Senate Appropriations Committee, "Total Force Concepts," April 9, 1991, 7 pp. This basic testimony was repeated in the House.

(38) "Defense Deputy Secretary Donald Atwood Address to the American Institute of Aeronautics and Astronautics," May 1, 1991, at the Hyatt Regency Crystal City, Arlington, Virginia, Reuter Transcript Report, 8 pp.

(39) Casey Anderson, "New Conventional, Nuclear Commands Seen," Air Force Times, February 11, 1991, p. 3, reporting on GEN McPeak's remarks at an Air Force Association Conference in Lake Buena Vista, Florida, on January 31, 1991.

(40) The Honorable Michael P.W. Stone and General Carl E. Vuono, Trained and Ready: The United States Army Posture Statement FY 92/93, February 15, 1991, 106 pp.

(41) The Honorable H. Lawrence Garrett III, Secretary of the Navy, Admiral Frank B. Kelso II, Chief of Naval Operations, & General A.M. Gray, Commandant of the Marine Corps, "The Way Ahead," U.S. Naval Institute Proceedings, Vol. 117, No. 4, April 1991, pp. 36-47.

(42) Frank B. Kelso II, "Charting a Course for the Future," Sea Power, Vol. 34, No. 4, April 1991, pp. 13-20.

(43) Defense spending will actually go up due to Operations DESERT SHIELD and DESERT STORM, but this should be viewed as an aberration much the same as the war in Vietnam was viewed.

(44) Indeed, this subject is mentioned in their new draft military doctrine. See: "On the Military Doctrine of the USSR (Draft)," Moscow Voyennaya Mysl in Russian, Special Issue, signed to press November 30, 1990 (JPRS-UMT-91-001-L, January 3, 1991, p. 16).

(45) General John R. Galvin, U.S. Army, NATO's Supreme Allied Commander Europe, apparently agrees. In a February 1991 address, he remarked after discussing Operation DESERT STORM that "precision weapons have changed the whole face of battle. See: "Transcript, SACEUR's Remarks, International Institute for Strategic Studies, Commonwealth House, London, United Kingdom, 21 February 1991," IISS.DR, p. 7.

(46) These four supporting capabilities were not nearly as well articulated as the base force during the initial formative stage. The Annual Report to the President and the Congress serves this purpose. We can expect additional follow-on reports of how these capabilities fit into the "base force." For example, see General Donald J. Kutyna, USAF address to the "12th Western Conference and Exposition - Space Day - San Diego, CA - 24 January 1991," OASD/PA #91-0294, 23 Jan 91, 4 pp. and 58 annotated slides.

(47) General Donald J. Kutyna, USAF address to the "12th Western Conference and Exposition - Space Day - San Diego, CA - 24 January 1991," OASD/PA #91-0294, 23 Jan 91, annotated slides 54-57.

(48) "Text of the State of the Union Address," Washington Post, January 30, 1991, p. A14.

(49) When the Soviets first commented on a revised U.S. defense against limited nuclear strikes, they assumed that it would be ground-based. See: TASS report by Vladimir Chernyshev in English at 1805 GMT, October 17, 1990 (FBIS-SOV-90-202, October 18, 1990, p. 7). After President Bush's State of the Union address, they quickly picked up on a New York Times report that the new system would consist of 1,000 land-based and 1,000 space-based interceptors. See: Vladimir Chernyshev report, Moscow TASS in English, 1922 GMT, February 1, 1991 (FBIS-SOV-91-023, February 4, 1991, p. 1) and Vladislav Kozyakov commentary on Moscow World Service in English, 2300 GMT, February 14, 1991 (FBIS-SOV-91-033, February 19, 1991, p. 1).

(50) Examples used by GEN Powell in his April 1991 testimony before the Defense Base Closure Commission included the: 1st Infantry Division (ID) from Ft. Riley, KS, 4th Mechanized ID from Ft. Carson, CO, 5th Mechanized ID from Ft. Hood, TX, and the 194th Armoured Brigade from Ft. Knox, KY. GEN Powell used the new home bases for all units in his testimony.

(51) Suggested also by former Soviet Foreign Minister Eduard Shevardnadze in his statement to the Second International Conference on "The Asia-Pacific Region -- Dialogue, Peace, Cooperation," in Vladivostok, carried by Moscow TASS in English at 0844 GMT, September 4, 1990 (FBIS-SOV-90-172, September 5, 1990, pp. 3-10) and carried by Vladivostok Domestic Service in Russian at 2309 GMT, September 3, 1990 (FBIS-SOV-90-175, September 10, 1990, pp. 4-6 notes the differences between the sixty minute Russian and the English versions).

(52) Soviet criticism of a unilateral U.S. crisis response force was to be expected. In unofficial commentary by political analyst Yuriy Tyssovskiy broadcast by Moscow TASS in English at 1527 GMT on December 7, 1990 (FBIS-SOV-90-237, December 10, 1990, p. 16), the Soviets stated that:

"No questions would be asked if the new fire brigade force were created within the framework of the United Nations and their military committee and manned by troops from different countries. Such a force could then act as a powerful factor in support of a new world order."

(53) It is not clear, but the JMNA alludes to the Contingency Force having a role in the "far-flung islands of the world's oceans." It is also possible that the Contingency Force may end up with responsibility for South Asia.

(54) Examples used by GEN Powell in his April 1991 testimony before the Defense Base Closure Commission included the: 82nd Airborne Division from Ft. Bragg, NC, 101st Airborne Division from Ft. Campbell, KY, 7th Light ID from Ft. Lewis, WA, and the 24th Mechanized Infantry Division from Ft. Stewart, GA. GEN Powell used the new home bases for all units in his testimony.

(55) The Air Force has made a case for the use of U.S.-based airpower for responses to future crises. See: Department of the Air Force, "The Air Force and U.S. National Security: Global Reach - Global Power," A White Paper, June 1990, especially pp. 8-11, 15.

(56) "Warfighting," FMFM 1, March 6, 1989, 88 pp. This document's lack of significant use of the word "amphibious" is indicative of a shift in service self-identity. On the other hand, General Gray claims that "this type of operation can achieve objectives at the strategic, operational, and tactical levels of warfare." See: A.M. Gray, "Leaning Forward," Sea Power, Vol. 34, No. 4, p. 67.

(57) "A Report by Admiral F.B. Kelso, II, Chief of Naval Operations, on the Posture and Fiscal Year 1992-1993 Budget of the U.S. Navy," 14 February 1991, Appendix, pp. 3-4.

(58) Francis R. Donovan, "Surge and Sustainment," and L. Edgar Prina, "Jones Committee Focuses on Sealift Deficiencies," Sea Power, Vol. 33, No. 11, November 1990, pp. 39-50; and John G. Roos, "While DoD Sorts Out Sealift Shortfall, Army Planners 'Packaging' the Force," Armed Forces Journal International, Vol. 128, No. 4, November 1990, pp. 18-20; and "We Have Averted a World War: Interview with House Defense Appropriations Subcommittee Chairman John P. Murtha," Sea Power, Vol. 33, No. 11, December 1990, pp. 10-11, contain initial attempts to provide "lessons learned" from Operation DESERT SHIELD.

(59) Gordon Jacobs, "Desert Shield Sealift" and H.T. Lenton, "Maritime Aspects of Operation Desert Shield," Navy International, Vol. 95, No. 11, November 1990, pp. 387-390 & 396-399; F. Clifton Berry, Jr., "Massive Airlift Stabilized Situation," National Defense, Vol. LXXV, No. 463, December 1990, pp. 6-8; Charles W. Corddry, "Even as Navy Builds up its Middle East Forces, a Drastic Build Down is Being Eyed by Planners," Sea Power, No. 34, No. 1, January 1991, p. 10; and John G. Roos, "MAC, Reserve Air Fleet Pull Off 162-Day 'Surge' for Desert Storm," Armed Forces Journal International, Vol. 128, No. 6, February, 1991, p. 28.

(60) "NATO Transformed: The London Declaration," Selected Documents, No. 38, Bureau of Public Affairs, Department of State, containing the London Declaration on a Transformed North Atlantic Alliance issued by the Heads of State and Government participating in the meeting of the North Atlantic Council on July 5-6, 1990.

(61) General John R. Galvin, USA, NATO Supreme Allied Commander Europe, "SACEUR DPC Remarks, Brussels, BE, 6 Dec 90" transcript, 4 pp.

(62) There appears to be a definite difference in the use of the term "reconstitution" by NATO and as envisaged by the President and Secretary Cheney. NATO officials have been talking in terms of mobilization over a longer period of time rather than the

creation of wholly new forces. A similar problem exists even in the U.S. The U.S. Army uses the term "reconstitution" to mean both a return of operationally deployed units to pre-hostilities levels of capability as well as to rebuild forces as envisaged by Secretary Cheney.

(63) General John R. Galvin, USA "Transcript SACEUR's Remarks with Carnegie Endowment for International Peace, Washington, D.C., 8 January 1991," CARNEGIE.TR, p. 13.

(64) Yu. Subbotin, "Security is Trust," Moscow Sovetskaya Rossiya in Russian, November 21, 1990, 2nd Ed., p. 3 (FBIS-SOV-90-229, November 28, 1990, p. 3).

(65) Philip A.G. Sabin, British Strategic Priorities in the 1990s, Adelphi Papers 254, London: International Institute for Strategic Studies, Winter 1990, p. 9.

(66) General John R. Galvin, USA "Transcript SACEUR's Remarks with Carnegie Endowment for International Peace, Washington, D.C., 8 January 1991," CARNEGIE.TR, pp. 13-14, 15.

(67) "SACEUR's Presentation and Question/Answer Period" at the 30th Annual Reunion of the SHAPE Officers' Association, Saturday, October 13, 1990, SHAPE Officers' Association Newsletter, No. 84, December 1990, p. 8.

(68) V. Peresada's report "Preparing for Changes -- NATO Council Sessions Ends," Moscow Pravda in Russian, December 20, 1990, 2nd Ed., p. 1 (FBIS-SOV-90-249, December 27, 1990, p. 3), makes note that NATO Secretary General Manfred Wörner is reported to have stated that the new strategy will be "elaborated by the summer of next year."

(69) "Transcript, SACEUR's Remarks, International Institute for Strategic Studies, Commonwealth House, London, United Kingdom, 21 February 1991," IISS.DR, 9 pp.

(70) General of the Army S.P. Ivanov, "From the Experience of Preparation and Conduct of the Manchurian Operation of 1945," Moscow Voyennaya Mysl in Russian, No. 8, August 1990, pp. 42-48 (JPRS-UMT-90-008-L, October 23, 1990, pp. 25-29).

(71) The Voroshilov Lectures: Materials from the Soviet General Staff Academy, Vol. I: Issues of Soviet Military Strategy, Compiled by Ghulam D. Wardak, Graham H. Turbiville, Jr., Gen. Ed., Washington, D.C.: National Defense University Press, June 1989, p. 273. Of note is the recent removal of the name Voroshilov from the General Staff Academy. See: Moscow TASS report in English, 1218 GMT, January 8, 1991 (FBIS-SOV-91-006, January 9, 1991, p. 27).

(72) Marshal of the Soviet Union Nikolay V. Ogarkov, then-Chief of the General Staff, Always Prepared to Defend the Fatherland in Russian, Moscow: Voenizdat, 1982, pp. 34-35 (JPRS L/10412, March 25, 1982, pp. 24-25) and after his reassignment, History Teaches

Vigilance in Russian, Moscow: Voenizdat, 1985 (JPRS-UMA-85-021-L Corrected, November 13, 1985, p. 32).

(73) "On the Military Doctrine of the USSR (Draft)," Moscow Voyennaya Mysl in Russian, Special Issue, signed to press November 30, 1990, pp. 24-28 (JPRS-UMT-91-001-L, January 3, 1991, pp. 14-17).

(74) Andrei A. Kokoshin and General-Major Valentin V. Larionov, "Counterpositioning Conventional Forces in the Context of Ensuring Strategic Stability," Moscow Mirovaya Ekonomika I Mezhdunarodnyye Otnosheniya in Russian, No. 6, June 1988, pp. 23-31 (SASO translation, 13 pp.); and "Re-Thinking Victory. An Interview with Andrei Kokoshin" (USA and Canada Institute Deputy Director) Leeds Detente in English, No. 13, November 17, 1988 (FBIS-SOV-88-238 Annex, December 12, 1988, p. 13). The new models of defense have also been explained further by Larionov in his presentations at a conference on "Soviet Military Doctrine in a Changing Era," at Old Dominion University, Norfolk, Virginia, May 25-27, 1989 and in the subsequent preparation of these presentations in draft chapter form (21 pp. undated). For some reason, this chapter did not appear in the book of conference proceedings.

(75) Interview with Marshal of the Soviet Union Sergei F. Akhromeyev, contained both in "The Doctrine of a New Policy," Warsaw Zolnierz Wolnosci in Polish, November 9, 1989, p. 4 (FBIS-SOV-89-221, November 17, 1989, p. 108) and "Our Military Doctrine," Moscow Agitator Armii I Flota in Russian, No. 24, 1989 (FBIS-SOV-90-021, January 31, 1990, p. 115).

(76) Marshal of the Soviet Union V.D. Sokolovskiy, Soviet Military Strategy, 3rd Ed., Ed. with an analysis and commentary by Harriet Fast Scott, New York, NY: Crane, Russak & Company, Inc., 1980 (first paper edition), p. 134.

(77) Interview with Army General Mikhail A. Moiseyev, "Military Reform: Reality and Prospects," Moscow Krasnaya Zvezda in Russian, November 20, 1990, 1st Ed., p. 2 (FBIS-SOV-90-225, November 21, 1990, pp. 49-54).

(78) Marshal of the Soviet Union Dmitriy Yazov, USSR Minister of Defense, "USSR Ministry of Defense Draft Military Reform Concept," Moscow Pravitelstvennyy Vestnik in Russian, No. 48, November 1990, pp. 5-10 (FBIS-SOV-90-239, December 12, 1990, pp. 62-75; or JPRS-UMA-90-028, December 17, 1990, pp. 52-70); or as published in Moscow Voyennaya Mysl in Russian, Special Edition, signed to press November 30, 1990, pp. 3-23 (JPRS-UMT-91-001-L, January 3, 1991, pp. 1-14).

(79) General-Colonel A.N. Kleymenov, "On Certain Methodological Approaches to Solving Problems of War and Peace (Military-Political Aspect)," Moscow Voyennaya Mysl in Russian, No. 9, September 1990 (JPRS-UMT-90-009-L, November 21, 1990, p. 9).

(80) General-Major V. Ivanov, senior lecturer at the General Staff Academy of the USSR, "Radical Renewal or 'Cosmetic

Repair'?" Moscow Komunist Vooruzhennykh Sil in Russian, No. 15, August 1990, pp. 15-20 (FBIS-SOV-90-180-S, September 17, 1990, pp. 40-44).

(81) Colonel N.F. Azyasskiy, "On the Strategic Deployment of the Armed Forces of Germany and the Soviet Union in 1941," Moscow Voyennaya Mysl in Russian, No. 8, August 1990 (JPRS-UMT-90-008-L, October 23, 1990, pp. 7-8).

(82) James J. Tritten, "Superpower War Termination: The Maritime Component," The Journal of Soviet Military Studies, Vol. 4, No. 1, March 1991, (forthcoming) further develops this concept.

(83) SACEUR General John R. Galvin, USA, took this position recently in "Transcript SACEUR's Remarks with Carnegie Endowment for International Peace, Washington, D.C., 8 January 1991," CARNEGIE.TR, pp. 9-10.

(84) "President's Speech on Military Spending and a New Defense," New York Times, March 24, 1983, p. 20.

(85) Caspar W. Weinberger speech to the Aviation and Space Writers Association on April 11, 1983, contained in "The Administration's Policy on Strategic Defense," Defense Science & Electronics, May 1983, pp. 21-23.

(86) These were the group that produced the Future Security Strategy Study headed by Fred S. Hoffman, director of Pan Heuristics, and Defense Technologies Study Team, also known as the Fletcher Panel for its chairman, James C. Fletcher, former head of the National Aeronautics and Space Administration.

(87) Caspar W. Weinberger, Secretary of Defense, Annual Report to the Congress, Fiscal Year 1985, February 1, 1984, pp. 30, 193-194.

(88) Caspar W. Weinberger, Secretary of Defense, Annual Report to the Congress, Fiscal Year 1984, February 1, 1983, pp. 34, 225-228.

(89) An initial look at nonstandard scenarios is contained in, James A. Winnefeld & David A. Shlapak, "The Challenge of Future Nonstandard Contingencies: Implications for Strategy, Planning, Crisis Management, and Forces, Volume I," RAND/N-3098/1-DAG, Santa Monica: The RAND Corporation, October 1990, 69 pp.; and "Volume II," RAND/N-3098/2-DAG, 182 pp.

(90) John M. Kenny, "The Dobb Report: Three Years After," NPS-56-89-016, Monterey, California: Naval Postgraduate School Technical Report, August 1989, 68 pp.

(91) Lieutenant T.R. Frame, Royal Australian Navy, "A Navy Grown Up and On Its Own," U.S. Naval Institute Proceedings, Vol. 115, No. 3, March 1989, pp. 116-123.

(92) For examples of possible Soviet misperceptions of the U.S.

military buildup of the 1980s, see commentary by ex-KGB Officer Oleg Gordievsky as recently published widely in the West. Oleg Gordievsky, "Pershing Paranoia in the Kremlin," London The Times in English, February 27, 1990, pp. 12-13 (FBIS-SOV-90-052-A, March 16, 1990, pp. 11-15); and an excerpt of the new book KGB: The Inside Story, by Christopher Andrew in cooperation with Gordievsky, was published in the U.S. by Time, Vol. 136, No. 17, October 22, 1990, pp. 72-82 (page 80-82 are of most interest).

(93) Keith A. Dunn, "The Missing Link in Conflict Termination Thought: Strategy," in Conflict Termination and Military Strategy, Stephen J. Cimbala and Keith A. Dunn, Eds., Boulder, Colorado: Westview Press, 1987, p. 185.

(94) Keith A. Dunn, "The Missing Link in Conflict Termination Thought: Strategy," in Conflict Termination and Military Strategy, Stephen J. Cimbala and Keith A. Dunn, Eds., Boulder, Colorado: Westview Press, 1987, pp. 186-190.

(95) Brigadier General Daniel W. Christman, USA, Director of Strategy, Plans, and Policy for the U.S. Army Staff, has also drawn a parallel between Operation DESERT SHIELD and our new contingency-based strategy. Interestingly, he credits former Chairman of the JCS, Admiral William J. Crowe, USN, with initiating the current redirection of U.S. national security strategy. See his "Desert Shield: Test of a New 'Contingency' Strategy," Armed Forces Journal International, Vol. 128, No. 5, December 1990, p. 50.

(96) Most Europeans at the IISS conference, and those that the author has met with over the past nine months, have attempted to make the argument that the Contingency Force could and should be based in Europe.

(97) V. Gan, "United States: Boost for 'Star Wars'," Moscow Pravda in Russian, February 11, 1991, 1st Ed., p. 6 (FBIS-SOV-91-028, February 11, 1991, pp. 1-2).

(98) Suggested by General-Major Valentin Larionov in "Combat Readiness and Security: Will People Stop Playing at War?" Moscow New Times in English, No. 37, September 12-18, 1989, p. 14; and by General-Major Yuriy Kirshin in "Why is Military Reform Needed?" Moscow New Times in English, No. 12, March 20-26, 1990 (FBIS-SOV-90-066, April 5, 1990, p. 69).

(99) The failure by the U.S. to capture North Vietnamese behavior with "red" team players in late 1960s - early 1970s politico-military war games has been address by General Bruce Palmer, Jr. in his The 25-Year War: America's Military Role in Vietnam, Lexington: University Press of Kentucky, 1984, p. 29.

(100) "Statement of Rear Admiral Thomas A. Brooks, USN, Director of Naval Intelligence, Before the Seapower, Strategic, and Critical Materials Subcommittee of the House Armed Services Committee, on Intelligence Issues, March 7, 1991," pp. 98-99.

(101) Bruce D. Berkowitz and Allan E. Goodman, Strategic Intelligence for American National Security, Princeton, New Jersey, 1989, pp. 21-22.

(102) This fact has not gone unnoticed by the Soviet Union. See: I. Kulkov, "Is the CIA Changing? U.S. Intelligence in the Era of Glasnost," Moscow Krasnaya Zvezda in Russian, January 3, 1991, 1st Ed., p. 3 (FBIS-SOV-91-003, January 4, 1991, pp. 6-7). On the other hand, from published U.S. reports, the DoD is avoiding any entry into economic intelligence. See: William Matthews, "Intelligence Reorganization Focuses on Cuts, Mergers," Navy Times, May 13, 1991, p. 13.

(103) Soviet Military Power - 1990, 9th Ed., September 1990, p. 54 states that "...a short-warning or pre-emptive strategic nuclear attack against the continental United States for the foreseeable future...is judged to be unlikely."

(104) "SACEUR's Presentation and Question/Answer Period" at the 30th Annual Reunion of the SHAPE Officers' Association, Saturday, October 13, 1990, SHAPE Officers' Association Newsletter, No. 84, December 1990, p. 12.

(105) Stephen Roskill, Naval Policy Between the Wars, Vol. II - The Period of Reluctant Rearmament 1930-1939, Annapolis, Maryland: Naval Institute Press, 1976, p. 371.

(106) Bruce D. Berkowitz and Allan E. Goodman, Strategic Intelligence for American National Security, Princeton, New Jersey, 1989, pp. 99-100; and Barton Whaley, Covert German Rearmament, 1919-1939: Deception and Misperception, Frederick, Maryland: University Press of America, 1984, pp. 91-93.

(107) As far-fetched as this sounds, it is interesting to note that exactly this scenario was examined at a forum "Civic Control Over Security" that took place in Rostov-on-Don. The forum was sponsored by the magazine Mezhdunarodnaya Zhizn and the School for Strategy of Socio-Intellectual Enterprise. See: Konstantine Ovchinnikov, "'Independent' War Games Described," Moscow New Times in English, No. 39, October 1, 1990, p. 32 (JPRS-UIA-90-017, November 6, 1990, p. 1).

(108) The next four sections draw heavily upon discussions, presentations, and draft position papers from the "What if Peace?" National Science and Technology Policy Conference sponsored by the California Engineering Foundation and Aviation Week and Space Technology, November 28-29, 1990, Costa Mesa, California. Attendees at this conference explicitly addressed the issues related to industrial capability to respond to the new strategy.

(109) Suggested recently by M. Aleksandrov in "Military Doctrine in Uncertain Perspective," Moscow Literaturnaya Rossiya in Russian, No. 40, October 5, 1990, p. 9 (JPRS-UMA-90-028, December 17, 1990, p. 50).

(110) John F. Peel Brahtz, "Modularized Ocean Basing System - A United States Option in a Strategy of Discriminate Deterrence (Circa 2000), R-928, Port Hueneme, CA: Naval Civil Engineering Laboratory Technical Report, November 1989 and J.D. Hightower, T.P. Rona, and H.R. Talkington, "Floating Stable Platforms: Concepts and U.S. Activities," San Diego, CA: Naval Ocean Systems Center, undated.

(111) U.S. Congress, Office of Technology Assessment, New Technology for NATO: Implementing Follow-On Force Attack, OTA-ISC-309, Washington, D.C.: U.S. Government Printing Office, June 1987, 230 pp.

(112) U.S. Congress, Office of Technology Assessment, Holding the Edge: Maintaining the Defense Technology Base, OTA-ISC-420, Washington, D.C.: U.S. Government Printing Office, April 1989, 187 pp.; and The Defense Technology Base: Introduction and Overview, A Special Report of OTA's Assessment on Maintaining the Defense Technology Base, OTA-ISC-374, March 1988, 113 pp.

(113) See: Martin C. Libicki, What Makes Industries Strategic, McNair Papers, No. 5, Washington, D.C.: National Defense University, Institute for National Strategic Studies, November 1989, 89 pp.

(114) New Thinking and American Defense Technology, New York: Carnegie Commission on Science, Technology, and Government, August 1990, p. 11.

(115) Comments of Rear Admiral Yu M. Khaliulin, Crimea Oblast Soviet deputy and Deputy Commander of the Black Sea Fleet, contained in excerpts of a TASS Report of a November 13, 1990 meeting between military people's deputies and Mikhail S. Gorbachev, "The Army Will Not Be Separated From the People; USSR President's Meeting With Deputies Who Are Also Servicemen," Moscow Krasnaya Zvezda in Russian, 16 November 1990, p. 4 (FBIS-SOV-90-225, 21 November 1990, p. 70).

(116) "Defense Deputy Secretary Donald Atwood Address to the American Institute of Aeronautics and Astronautics," May 1, 1991, at the Hyatt Regency Crystal City, Arlington, Virginia, Reuter Transcript Report, p. 7;

"...I believe the free economic system is the system which should determine who wins, who loses, who merges. I believe in the free marketplace. I don't think we, the Department of Defense surely, have the capability to try to plan any kind of industrial policy. Quite the contrary. The free marketplace has to determine. Our role is to sponsor research and development and our role is to make sure people know what we're going to buy. And let the marketplace determine those in between."

(117) Initial costs of \$30B for a Five-Year Plan represent only a fraction of the hundreds of billions of dollars that could ultimately be required. See: Office of Technology Assessment, Complex Cleanup: The Environmental Legacy of Nuclear Weapons Production, February 1991.

(118) The DoD has already started moving in this direction with the expansion of International Military Education and Training (IMET) resource allocation courses at the Defense Education Resources Management Center (DRMEC) in Monterey, CA. This school may see its first contingent of Eastern Europeans within the next year.

(119) Congress is just beginning to explore its role in this process. The Office of Technology Assessment has just completed a background paper, "Adjusting to a New Security Environment: The Defense Technology and Industrial Base Challenge," 16 pp.

(120) G.A.H. Gordon, British Seapower and Procurement Between the Wars: A Reappraisal of Rearmament, Annapolis, Maryland: Naval Institute Press, 1988, 321 pp.

(121) Fred C. Ikle, "Industrial Mobilization Planning: Critical to National Defense," based upon remarks to the Society of Manufacturing Engineers Conference, Detroit, November 9, 1987, printed in Defense 88, January/February 1988, pp. 15-18.

(122) A "Graduated Mobilization Response" system was investigated by the DoD in the 1980s but largely as a component of our deterrent strategy vis-a-vis the USSR. On the general subject of industrial mobilization capabilities, see: Martin C. Libicki, Industrial Strength Defense: A Disquisition on Manufacturing, Surge and War, Washington, D.C.: National Defense University Mobilization Concepts Development Center, undated but printed in 1986, 164 pp.; and John N. Ellison, Jeffrey W. Frumkin, and Timothy W. Stanley, Mobilizing U.S. Industry: A Vanishing Option for National Security? Boulder, CO: Westview Press, 1988, 126 pp.

(123) James R. Gallagher, "Graduated Mobilization Response Concept Overdue," National Defense, Vol. LXXV, No. 464, January 1991, p. 23.

(124) Such a stockpile would be very difficult to manage due to the transitory nature of "critical" components.

(125) Congressional Budget Office, Strategic and Critical Non-fuel Minerals: Problems and Policy Alternatives, Washington, D.C.: U.S. Government Printing Office, August 1983, pp. 75-77.

(126) On the other hand, it has been reported that GEN Powell is indeed considering changes to the Unified Command Plan (UCP). See: Casey Anderson, "New Conventional, Nuclear Commands See," Air Force Times, February 11, 1991, p. 3, reporting on GEN McPeak's remarks at an AFA Conference in Lake Buena Vista, Florida, on January 31, 1991.

(127) In addition to the comments by the Chief of Staff of the Air Force, GEN McPeak, see also: VADM Bernard M. Kauderer, USN (Ret.), "From the President" & VADM Daniel L. Cooper, USN (Ret.), "Submarines and the Face of Change," Submarine Review, April 1991, pp. 2, 7; and RADM J.C. Wylie, USN (Ret.), "Heads Up, Navy," U.S. Naval Institute Proceedings, Vol. 117, No. 5, May 1991, pp. 17-18.

(128) See: Eliot A. Cohen, "After the Battle," The New Republic, April 1, 1991, pp. 19-26.

(129) Eliot A. Cohen, "The Future of Force and American Strategy," The National Interest, No. 21, Fall 1990, p. 13.

(130) Perry M. Smith, "Long-Range Planning: A National Necessity," in Creating Strategic Vision: Long-Range Planning for National Security, by Perry M. Smith, et. al., Washington, D.C.: National Defense University Press, 1987, p. 5 discusses the types of innovative individuals who will be required for this effort.

(131) Portions of this section were developed for a precis of this report published in the professional journal of the Military Operations Research Society. See: "A New National Security Strategy," Phalanx, Vol. 24, No. 1, March 1991, pp. 11-13.

(132) The encouragement for operations research practitioners to delve into the world of strategy, and the perception that they often do not, was addressed in Craig W. Kirkwood's, "Does Operations Research Address Strategy?" Operations Research, Vol. 38, No. 5, September-October 1990, pp. 747-751.

(133) The Military Operations Research Society (MORS) will be addressing all of these subjects at their 59th MORS Symposium at West Point in June 1991.

(134) Konstantine Ovchinnikov, "'Independent' War Games Described," Moscow New Times in English, No. 39, October 1990, p. 32 (JPRS-UIA-90-017, November 6, 1990, p. 1).

(135) John Train, "When can Sanctions Succeed?" Wall Street Journal, June 14, 1989, p. 14.

(136) General Accounting Office, "Industrial Base: Significance of DOD's Foreign Dependence," Report to the Chairman, Subcommittee on Technology and National Security, Joint Economic Committee, U.S. Congress, GAO/NSIAD-91-93, January 1991, 26 pp.

(137) Portions of this section were first developed in my precis of this report: "America's New National Security Strategy," The Submarine Review, April 1991, pp. 15-24.

(138) The Honorable H. Lawrence Garrett III, Secretary of the Navy, Admiral Frank B. Kelso II, Chief of Naval Operations, & General A.M. Gray, Commandant of the Marine Corps, "The Way Ahead," U.S. Naval Institute Proceedings, Vol. 117, No. 4, April 1991, pp. 36-47.

(139) "The Secretary of the Navy's Posture Statement - A Report by The Honorable H. Lawrence Garrett, III, Secretary of the Navy, on the Posture and the Fiscal Year 1992-1993 Budget of the United States Navy and Marine Corps," undated but delivered February 21, 1991, pp. 6, 19.

(140) "A Report by Admiral F.B. Kelso, II, Chief of Naval Operations, on the Posture and Fiscal Year 1992-1993 Budget of the U.S. Navy," 14 February 1991, Appendix pp. 3-4; and "The Secretary of the Navy's Posture Statement - A Report by The Honorable H. Lawrence Garrett, III, Secretary of the Navy, on the Posture and the Fiscal Year 1992-1993 Budget of the United States Navy and Marine Corps," undated but delivered February 21, 1991, p. 10.

(141) RADM J.C. Wylie, USN (Ret.), "Heads Up, Navy," U.S. Naval Institute Proceedings, Vol. 117, No. 5, May 1991, pp. 17-18.

(142) John F. Morton, "The U.S. Navy in 1990," U.S. Naval Institute Proceedings, Vol. 117, No. 5, May 1991, pp. 124-133.

(143) Programming planning appears to have gone along, during much of 1990, without any recognition that the world has changed. See: James L. George, "The USNs Revolution at Sea," Navy International, Vol. 95, No. 10, October 1990, pp. 378-383. There are signs that at least some parts of the Navy recognized the changes and worried about the implications for programming. See: Scott C. Truver, "Whither US Anti-Submarine Warfare, Now That the Threat Has Gone Away?" Naval Forces, Vol. XI, No. V/1990, pp. 8-21.

(144) VADM Daniel L. Cooper, USN (Ret.), "Submarines and the Face of Change," Edward J. Campbell, President and Chief Executive Officer, Newport News Shipbuilding, "Industrial Base," and James E. Turner, Jr., Executive Vice President, Marine, Land Systems and Services, General Dynamics Corporation, "Maintaining the U.S. Submarine Industrial Base," The Submarine Review, April 1991, pp. 4-8, 27-31, 32-36.

(145) For an interesting series of articles addressing other roles and missions for the submarine force, see recent issues of The Submarine Review (the journal of the Naval Submarine League) -- especially: "Address to Naval Submarine League Annual Symposium - 14 June 1990" by VADM Daniel L. Cooper, USN, ACNO Undersea Warfare, "SSN's and Low Intensity Conflict" by James C. Hay, both contained in the July 1990 issue, pp. 5-14, 36-42; "Force Commander's Forum - Commander Submarine Force, U.S. Atlantic Fleet" by VADM Roger F. Bacon, USN, October 1990, pp. 83-87; "The Case for a Submarine-Based Anti-Satellite System" by D. Nahrstedt, "The Use of Submarines in Small-Scale Conflicts" by MIDN Sean Osterhaus, and "The U.S. SSN in Third World Conflict (TWC)" by Jim Patton, all in the January 1991 issue, pp. 50-59, 73-78. Admiral Bacon's remarks are covered with additional depth in "Commander Says Sub Force Looks Back for Future" by Jack Dorsey, Norfolk The Virginian-Pilot, December 3, 1990, pp. D1 & D5. Also see Brent A. Ditzler, "Naval Diplomacy Beneath the Waves: A Study

of the Coercive Use of Submarines Short of War," Master's Thesis, Monterey, California: Naval Postgraduate School, December 1989, 117 pp. for an excellent example of a submarine officer arguing that submarines have a role in naval diplomacy.

(146) Rear Admiral J.R. Hill, Maritime Strategy for Medium Powers, Annapolis, MD, Naval Institute Press, 1986, p. 97.

(147) Ronald O'Rourke, "Congressional Watch," U.S. Naval Institute Proceedings, Vol. 117, No. 5, p. 171.

(148) Perhaps the best example of this was Air Force Chief of Staff GEN McPeak's March 15, 1991 TV briefing on "Air Power in the Gulf - DESERT SHIELD/STORM Operation" and especially his response to questions and answers broadcast live on C-SPAN. The Air Force Association and Air Force Public Affairs have a videotape of the briefing available to its local chapters.

(149) James L. George, "A Strategy in the Navy's Best Interest," U.S. Naval Institute Proceedings, Vol. 117, No. 5, pp. 114-123. Although this article is the Prize Essay in the 1991 Arleigh Burke Essay Contest, its placement in the Naval Review 1991 issue of the U.S. Naval Institute Proceedings indicates that the publishers wished to focus more attention to other subjects than it did the recommendations contained in the essay.

(150) "The Top Line of Tomorrow's Navy" Interview with Vice Admiral William D. Smith, Sea Power, Vol. 34, No. 2, February 1991, p. 17; "A Report by Admiral F.B. Kelso, II, Chief of Naval Operations, on the Posture and Fiscal Year 1992-1993 Budget of the U.S. Navy," 14 February 1991, Appendix, p. 4; and "The Secretary of the Navy's Posture Statement - A Report by The Honorable H. Lawrence Garrett, III, Secretary of the Navy, on the Posture and the Fiscal Year 1992-1993 Budget of the United States Navy and Marine Corps," undated but delivered February 21, 1991, p. 12.

(151) It will be interesting to see if this changes given the recent issue of the U.S. Naval Institute Proceedings.

(152) "The Secretary of the Navy's Posture Statement - A Report by The Honorable H. Lawrence Garrett, III, Secretary of the Navy, on the Posture and the Fiscal Year 1992-1993 Budget of the United States Navy and Marine Corps," undated but delivered February 21, 1991, p. 5.

(153) "A Report by Admiral F.B. Kelso, II, Chief of Naval Operations, on the Posture and Fiscal Year 1992-1993 Budget of the U.S. Navy," 14 February 1991, pp. 12-13.

(154) "Statement of Admiral David E. Jeremiah, Vice Chairman of the Joint Chiefs of Staff, Before the Committee on Armed Services, United States House of Representatives, 12 March 1991, 15 pp.

(155) On the other hand, one might conclude that the maritime

school has become clearly preeminent.

(156) Recall criticism of the Maritime Strategy of the 1980s for failing to more emphasize the primary role of land forces in attaining political goals that required military forces.

(157) Part of this section draws upon concepts first developed in "Strategic Management for the Defense Department," by James J. Tritten and Nancy Roberts, NPS-56-88-030-PR, Monterey, California: Naval Postgraduate School Technical Report, September 1988, pp. 3-9.

(158) "Sources of Change in the Future Security Environment," A paper by the Future Security Environment Working Group, submitted to the Commission on Integrated Long-Term Strategy," Andrew W. Marshall and Charles Wolf, Working Group Chairmen, April 1988, p. 18. It can also be argued that this state also defines our future leadership in technology.

DISTRIBUTION LIST

	No. Copies
1. Dudley Knox Library Naval Postgraduate School Monterey, CA 93943-5100	2
2. Dean of Research (Code 08) Naval Postgraduate School Monterey, CA 93943-5100	1
3. Defense Technical Information Center Cameron Station Alexandria, VA 22314	2
4. Andrew Marshall Director, Net Assessment OSD/NA Room 3A930 Office of the Secretary of Defense Washington, DC 20301	2
5. RADM Donald Pilling, USN Director, Defense Policy OEB Room 380 National Security Council Staff 17 Pennsylvania Avenue Washington, DC 20506	2
6. CAPT Jerry Murphy, USN Chief Strategic Planning USD A PI/SP Room 3E10 Office of the Secretary of Defense Washington, DC 20301	2
7. Dr. Daniel Goure/LTC Bruce MacDonald, USAF Competitive Strategies Office OSD/OPDUSD (S&R) (CSO) PNT Room 1E801/5 Office of the Secretary of Defense Washington, DC 20301	2
8. LCDR Edward S. Smith, Jr., USN HQ/DNA/NASF Defense Nuclear Agency 6801 Telegraph Rd. Alexandria, VA 22310	2
9. Dr. James J. Tritten, Associate Professor Commander, U.S. Navy (Ret.) Department of National Security Affairs (NS/Tr) Naval Postgraduate School Monterey, CA 93943-5100	40

10. Dr. Nancy C. Roberts, Associate Professor 1
Administrative Science Department (AS/Rc)
Naval Postgraduate School
Monterey, CA 943-5100
10. Dr. Darnell Whitt, Associate Professor 1
Defense Resources Education Management Center
Code 6417
Naval Postgraduate School
Monterey, CA 93943-5100
11. Dr. Richard T. Ackley 1
Commander, U.S. Navy (Ret.)
Director, National Security Studies
California State University, San Bernardino
5500 University Parkway
San Bernardino, CA 92407
12. LTG Jimmie V. Adams, USAF 1
Deputy Chief of Staff Plans & Operations
AF/XO Pnt Room 4E1032
Air Staff
Washington, D.C. 20330
13. LTC Ken Allard, USA 1
Office of the Deputy Under Secretary
of Defense (Total Quality Management)
Pnt Room 3E144
Office of the Secretary of Defense
Washington, D.C. 20301-3000
14. Dr. David J. Andre 1
Colonel, U.S. Army (Ret.)
Mail Stop T1-13-1
Science Applications International Corp.
1710 Goodridge Dr.
McLean, VA 22102
15. Dr. Al Andrus 2
Arms Control Coordinator & Head Wargaming &
Regional Studies Branch
Operations Research Division
SHAPE Technical Centre - P.O. Box 174
2501 CD The Hague
THE NETHERLANDS
16. Mr. William Arkin 1
Greenpeace
1436 U Street, N.W.
Washington, D.C. 20009
17. Dr. Eric H. Arnett 1
AAAS Science & Security
1333 H Street, N.W.
Washington, D.C. 20005

18. Edward B. Atkeson 1
Major General, U.S. Army (Ret.)
202 Vassar Place
Alexandria, VA 22314
19. RADM E.B. Baker, USN 1
Director, Strategy, Plans & Policy Division
OP-60, Pnt Room 4E566
Office of the Chief of Naval Operations
Washington, D.C. 20350
20. VADM John A. Baldwin, USN 1
President
National Defense University
Ft. Leslie J. McNair
Washington, D.C. 20319-6000
21. Dr. James Barber 1
Captain, U.S. Navy (Ret.)
Executive Director
U.S. Naval Institute
Annapolis, MD 21402
22. Dr. Roger Barnett 1
Captain, U.S. Navy (Ret.)
National Security Research
Suite 330
3031 Javier Road
Fairfax, VA 22031
23. Dr. Robert Bathurst 1
Captain, U.S. Navy (Ret.)
1762 Sponvika
NORWAY
24. Dr. Bruce Berkowitz 1
Select Committee on Intelligence
U.S. Senate
Washington, D.C. 20510
25. Dr. Al Bernstein 1
Institute for National Security Studies
National Defense University
Ft. Leslie J. McNair
Washington, D.C. 20319-6000
26. Dr. Bruce Blair 1
The Brookings Institution
1775 Massachusetts Ave., N.W.
Washington, D.C. 20036

27.	James Blaker Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22301	1
28.	Derek G. Boothby Room 3150J Department for Disarmament Affairs United Nations New York, NY 10017	1
29.	Edward Brady Vice President MS Z605 The MITRE Corporation 7525 Colshire Drive McLean, VA 22102	1
30.	Dr. John F. Brahtz P.O. Box 825 La Jolla, CA 92038	1
31.	RADM Thomas Brooks, USN Director, Naval Intelligence Pnt Room 5C600 OP-092 Office of the Chief of Naval Operations Washington, D.C. 20350	1
32.	CDR R. Mitchell Brown, USN OP-06 Chair of Strategic Planning Code NS/Br Naval Postgraduate School Monterey, CA 93943-5100	15
33.	Dr. Thomas Brown Manager, Strategic Analysis K100/IP Northrop Corporation 8900 E. Washington Blvd. Pico Rivera, CA 90660-3737	1
34.	Dr. Thomas C. Bruneau Chairman - Code NS/Bn Department of National Security Affairs Naval Postgraduate School Monterey, CA 93943-5100	50
35.	CAPT Jerome Burke, USN Associate Dean DIC-2 School of Professional Studies Defense Intelligence College Washington, D.C. 20340-5485	1

36. GEN G. Lee Butler, USAF 1
Commander-in-Chief
Strategic Air Command
Offut Air Force Base, NE 68106
37. Dr. Robert L. Butterworth 1
Pacific-Sierra Research Corp.
Suite 1100
1401 Wilson Blvd.
Arlington, VA 22209
38. Peter Byrne 1
Pentagon Room 1D929
The Joint Staff (J-8)
Washington, D.C. 20318-8000
39. California Seminar on International Security 1
and Foreign Policy
P.O. Box 925
Santa Clara, CA 90406
40. Dr. Steve Cimbala 1
Political Science Department
Penn State University
Delaware County Campus
Media, PA 19063
41. RADM Philip J. Coady, USN 1
OP-61 Pnt Room 4E572
Office of the Chief of Naval Operations
Washington, D.C. 20350
42. John Coan, Program Manager 1
National Defense Executive Reserve
HCHB Room H8378
U. S. Department of Commerce
Washington, DC 20230
43. Dr. Tyrus W. Cobb 1
Colonel, U.S. Army (Ret.)
Senior Fellow
Center for Naval Analyses
4401 Ford Avenue
Alexandria, VA 22301
44. Dr. Eliot A. Cohen 1
Professor and Director of Strategic Studies
The Paul H. Nitze School of Advanced
International Studies
The Johns Hopkins University
1619 Massachusetts Ave., N.W.
Washington, D.C. 20036

45. John Collins 1
CRS/F, LM-315
Madison Building
Library of Congress
Washington, D.C. 20540
46. RADM James D. Cossey, USN 1
OP-06B Pnt Room 4E592
Office of the Chief of Naval Operations
Washington, D.C. 20350
47. Fred Crickard 1
Rear Admiral, RCN (Ret.)
Centre for Foreign Policy Studies
Dalhousie University
Halifax, Nova Scotia B3H 4H6
CANADA
48. Seth Cropsey 2
Director, Asian Studies Center
The Heritage Foundation
214 Massachusetts Ave., N.E.
Washington, D.C. 20002
49. Dr. William J. Crowe 1
Admiral, U.S. Navy (Ret.)
3407 Cameron Mills Rd.
Alexandria, VA 22305-5000
50. Dr. Donald C. Daniel 1
Chairman, Campaign and Strategy Department
Center for Naval Warfare Studies
Naval War College
Newport, RI 02841-5010
51. Dr. Paul Davis 1
The RAND Corporation
1700 Main Street
P.O. Box 2138
Santa Monica, CA 90406-2138
52. Dr. Jan Dellenbrandt 1
Department of Soviet & East European Studies
Uppsala University
Eriksgatan 26A
S-752 28 Uppsala, SWEDEN
53. Marie-France Desjardins 1
2760 Carousel Cr. #705
Ottawa, Ontario
CANADA K1T 2N4

54.	CAPT Richard Diamond, USN OP-603 Pnt 4E486 Office of the Chief of Naval Operations Washington, DC 20350	2
55.	LTC Louis Dillais Director, Bureau of American Affairs Secretariat General de la Defense Nationale 51, BD de la Tour Maubourg 75007 Paris, FRANCE	1
56.	Dr. Ingemar N.H. Dörfer Rådmansgatan 69 S-113 60 Stockholm, SWEDEN	1
57.	MAJ Richard Downie, USA 9075 Raviller Dr. Downey, CA 90240	1
58.	CDR Robert Dresen, USN USDAO - American Embassy APO New York 09085	1
59.	Dr. Anthanassios E. Drougos Constantinopoleos 27 TT 155 62 - Holargos Athens, GREECE	1
60.	Dan Eades Editor, Praeger One Madison Avenue New York, NY 10010	1
61.	Dr. Lynn Eden Center for International Security & Arms Control Stanford University 320 Galvez Street Stanford, CA 94305-6165	1
62.	CAPT Thomas Ellsworth, USN OP-092F Pnt Room 5B719 Office of the Chief of Naval Operations Washington, D.C. 20350	1
63.	VADM R.M. Eytchison, USN JSTPS - JV Vice Director, Joint Strategic Targeting Planning Staff Offut Air Force Base, NE 68106	1
64.	CAPT Michael Farmer, USN Pnt Room 2E972 ADD S&P J-5 The Joint Staff Washington, D.C. 20318-5000	2

65. CAPT Thomas Fedyszyn, USN 2
Director, Defense Operations Division
USNATO/DoD
Box 102
APO New York, NY 09667-5028
66. Christine A. Fossett 1
Government Accounting Office
GAO Room 5844
441 G Street, N.W.
Washington, D.C. 20548
67. Dr. Robert Friedheim 1
6505 Esplanade, #4
Playa del Rey, CA 90293
68. Troels Kaare Froling 1
Deputy Secretary-General
Danish Atlantic Treaty Organization
Ved Idraetsparken 4
Postbox 2715
2100 Copenhagen O, DENMARK
69. Dr. Robert G. Gard, Jr. 1
Lieutenant General, U.S. Army (Ret.)
President
Monterey Institute of International Studies
425 Van Buren Street
Monterey, CA 93940
70. Dr. James George 1
Committee on Government Operations
Room 2153
House of Representatives
Washington, D.C. 20515
71. Dr. Philip S. Gillette 1
International Studies
Old Dominion University
Norfolk, VA 23529
72. Dr. Eric Grove 1
Foundation for International Security
41 Martin Grove
Morden Surrey
UNITED KINGDOM
73. Dr. Gary Guertner 1
Strategic Studies Institute
U.S. Army War College
Box 437
Carlisle Barracks, PA 17013

74. Dr. Jerome Gideon 1
Senior Legislative Assistant
Robert K. Dornan, M.C.
301 Cannon HOB
U.S. House of Representatives
Washington, D.C. 20515
75. Dr. Frederick Giessler 1
Colonel, U.S. Air Force (Ret.)
Science Applications International Corp.
1710 Goodridge Drive
P.O. Box 1303
McLean, VA 22102
76. Dr. Nils O. Gylden 1
Assistant Under Secretary for Security Policy
Ministry of Defense
10300 Stockholm, SWEDEN
77. Bonnie S. Glaser 1
Policy Planning Department
National Security Research Group
System Planning Corporation
1500 Wilson Blvd.
Arlington, VA 22209-2454
78. Jerome X. Goldschmidt 1
OP-816 Pnt Room 4A510
Office of the Chief of Naval Operations
Washington, D.C. 20350
79. Dr. J.A. Richard Guertin, SES 1
Assistant for Educational Resources (OP-09BC)
Office of the Assistant VCNO Pnt Room 4D386
Washington, D.C. 20350-2000
80. Dr. Grant T. Hammond 1
Professor of International Relations
Air War College
Maxwell Air Force Base, AL 36112-5522
81. Dr. Paul Y. Hammond 1
Graduate School of Public & International Affairs
University of Pittsburgh
Pittsburgh, PA 15260
82. Dr. John T. Hanley 1
Center for Naval Warfare Studies
Naval War College
Newport, R.I. 02841-5010
83. Dr. Frederick Hartman 1
2060 Quartz Hill Place
Gold River, CA 95670

84. James C. Hay 1
Captain, U.S. Navy (Ret.)
Submarine Review
Naval Submarine League
P.O. Box 1146
Annandale, VA 22003
85. Dr. Richard Head 1
Lieutenant General, U.S. Air Force (Ret.)
Director of Advanced Planning
Washington Operations
SRS Technologies
1500 Wilson Blvd., Suite 800
P.O. Box 12707
Arlington, VA 22209-8707
86. Dr. Jacqueline R. Henningsen 1
Chief, Capability Assessment Division
Directorate, Force Assessments
DCS/Plans & Resources
Strategic Air Command
Offut AFB, NE 68113
87. James D. Hessman 1
Seapower
Navy League of the U.S.
2300 Wilson Blvd.
Arlington, VA 22201-3308
88. COL John J. Hickey, Jr., USA 1
Attn: AWCI Root Hall Room A218
Strategic Studies Institute
U.S. Army War College
Carlisle Barracks, PA 17013
89. J.R. Hill 1
Rear Admiral, Royal Navy (Ret.)
Cornhill House
The Hangers
Bishops Waltham
Southampton SO31EF
UNITED KINGDOM
90. CDR Steven Hill, USN 1
J-8, Pnt Room 1D940
Office of the Joint Chiefs of Staff
Washington, D.C. 20301
91. John Hines 1
Lieutenant Colonel, U.S. Army (Ret.)
The RAND Corporation
2100 M Street, N.W.
Washington, D.C. 20037-1270

92. Robert P. Hinton 1
Rear Admiral, U.S. Navy (Ret.)
Institute for Defense Analyses
1801 N. Beauregard St.
Alexandria, VA 22311
93. Dr. Thomas Hone 1
SF&P
Policy & Orientation Management Department
Defense Systems Management College
Ft. Belvoir, VA 22060-5426
94. CAPT Forrest A. Horton, USN 1
CNO Strategic Policy Analysis Group
Center for Naval Analyses
4401 Ford Avenue
Alexandria, VA 22301
95. Dr. Samuel P. Huntington 1
John M. Olin Institute for Strategic Studies
Center for International Affairs
1737 Cambridge Street
Cambridge, MA 02138-3099
96. VADM Jerome L. Johnson, USN 1
Vice Chief of Naval Operations
OP-09 Pnt Room 4E644
Office of the Chief of Naval Operations
Washington, D.C. 20350
97. Dr. Stuart E. Johnson 1
Director
Strategic Concepts Development Center
National Defense University (INSS)
Ft. Leslie J. McNair
Washington, D.C. 20319-6000
98. Dr. Stephen Jurika 2
Captain, U.S. Navy (Ret.)
7927 Calendonia Dr.
San Jose, CA 95135
99. Dr. Francis X. Kane 1
Strategic Defense Center
Rockwell International Corporation
2230 East Imperial Highway
El Segundo, CA 90245
- 100 COL James L. Kays, USA 1
Department of Systems Engineering
U.S. Military Academy
West Point, N.Y. 10996

101	Frederick Kiley Director, National Defense University Press National Defense University Ft. Leslie J. McNair Washington, D.C. 20319-6000	1
102	Dr. Steven Kime Captain, U.S. Navy (Ret.) 12459 Henderson Rd. Clifton, VA 22024	1
103	Dr. Jake Kipp Soviet Army Studies Office Commander, Combined Arms Center USC&GSC Ft. Leavenworth, KS 66027	1
104	Constance Lynch Koehler Director, Business Development, Plans & Analysis Aircraft Division Northrop Corporation One Northrop Avenue Hawthorne, CA 90250-4209	1
105	Paul Kozemchak 6507 Lakeview Drive Falls Church, VA 22241	1
106	George F. Kraus, Jr. Commander, U.S. Navy (Ret.) Foreign Systems Research Center Science Applications International Corp. 6021 South Syracuse Way, Suite 300 Greenwood Village, CO 80111	1
107	LCDR Walter Kreidler, USN Navy Federal Executive Fellow The Brookings Institution 1775 Massachusetts Avenue, NW Washington, DC 20036	1
108	Dr. Steven Lamy School of International Relations, VKC 330 University of Southern California Los Angeles, CA 90089-0043	1
109	LTG Edwin S. Leeland, Jr. USA Strategic Plans & Policy J-5 Pnt Room 2E966 Office of the Joint Chiefs of Staff Washington, D.C. 20301	1

110	RADM Anthony A. Less, USN Deputy Chief of Naval Operations OP-06 Pnt Room 4E592 Office of the Chief of Naval Operations Washington, D.C. 20350	1
111	COL Karl Lowe, USA OUSD (S&R) Pnt Room 3D777 Office of the Secretary of Defense Washington, D.C. 20301-2100	1
112	Dr. Franklin D. Margiotta Colonel, U.S. Air Force (Ret.) President & Director of Publishing Brassy's (US) Inc. 8000 Westpark Drive, First Floor McLean, VA 22102	1
113	Mr. Thomas Marshall Science Applications International Corp. 1710 Goodridge Drive P.O. Box 1303 McLean, VA 22102	1
114	Dr. J. J. Martin Senior Vice-President Science Applications International Corp. 10260 Campus Point Drive San Diego, CA 92121	1
115	Ambassador Peggy Mason Department of External Affairs 125 Sussex Drive Ottawa, Ontario K1A 0G2 CANADA	1
116	Dr. Kleber S. Masterson Rear Admiral, U.S. Navy (Ret.) Vice President - Booz Allen & Hamilton Crystal Square #2, Suite 1100 1725 Jefferson Davis Highway Arlington, VA 22202-4158	1
117	Michael McCune Commander, U.S. Navy (Ret.) 6905 Lamp Post Lane Alexandria, VA 22306	1
118	Rodney B. McDaniel Science Applications International Corp. 1300 Crystal Dr., #902 Arlington, VA 22202	1

119	LTC Jeffrey McK. trick, USA Office of the Vice President White House Washington, D.C. 20500	1
120	CDR Robert M. Meissner, USN Executive Director General Advisory Committee on Arms Control & Disarmament Arms Control & Disarmament Agency Department of State Washington, D.C. 20451	1
121	William A. Miner Commander, U.S. Navy (Ret.) 804 Russell Road Alexandria, VA 22301	1
122	CAPT Vance H. Morrison, USN OP-06B1 Pnt Room 4E563 Office of the Chief of Naval Operations Washington, D.C. 20350	1
123	Ambler H. Moss, Jr. Dean, Graduate School of International Studies University of Miami 1531 Brescia Street Coral Gables, FL 33124	1
124	LTG C.E. Mundy, USMC Deputy Chief of Staff for Plans, Policies & Operations (Code P) HQ USMC, AA Room 2016 Washington, D.C. 20380	1
125	Stephen A. Murtaugh Calspan Corp. P.O. Box 400 Buffalo, N.Y. 14225	1
126	Ivan Oelrich Office of Technology Assessment Congress of the United States Washington, D.C. 20510-8025	1
127	Tracie O'Geary Mail Stop TACCSF BDM Corporation 1801 Randolph Rd., S.E. Albuquerque, NM 87106	1

128	Mary Pace MS-Z521 The MITRE Corporation 7525 Colshire Drive McLean, VA 22102	1
129	Dr. James Patton Captain, U.S. Navy (Ret.) 6831 Pacific Lane Annandale, VA 22003	1
130	Charles Pease Captain, U.S. Navy (Ret.) 3604 Oval Dr. Alexandria, VA 22305-1148	1
131	George E. Pickett, Jr. Northrop Analysis Center 2 Lafayette Centre 1133 21st Street, NW Washington, DC 20036	1
132	Dr. F. Jackson Piotrow School of International Service The American University - Tenley Campus 4400 Massachusetts Ave., N.W. Washington, D.C. 20016	1
133	Dan Pipes Editor, Orbis Foreign Policy Research Institute 3615 Chestnut Street Philadelphia, PA 19104	1
134	LCDR Michael N. Pocalyko, USN Office of Program Appraisal Pnt Room 4D738 Navy Department Washington, D.C. 20350-1400	2
135	Dr. Bruce Powers Special Asst. for Technology, Plans, & Analysis OP-05/50W Pnt Room 4E367 Office of the Chief of Naval Operations Washington, DC 20350-2000	1
136	Dr. Herb Puscheck OSD (PA&E) Pnt Room 2E330 Office of the Secretary of Defense Washington, D.C. 20301	1
137	Dr. Robin Ranger Apt. 1216 4701 Willard Avenue Chevy Chase, MD 20815-4625	1

138	Vivian Ravdin SECDEF Speechwriter Pnt Room 3D853 Office of the Secretary of Defense Washington, D.C. 20301	1
139	Professor Luo Renshi Beijing Institute for International Strategic Studies P.O. Box 792 Beijing, CHINA	1
140	Michael Rich Vice President The RAND Corporation 1700 Main Street P.O. Box 2138 Santa Monica, CA 90406-2138	1
141	Miles Robertson International Relations Department of Economics St. Salvator's College St. Andrews Fife KY16 9Al Scotland UNITED KINGDOM	1
142	MG John D. Robinson, USA Force Structure, Resource, & Analysis Dir. J-8 Pnt Room 1E962 Office of the Joint Chiefs of Staff Washington, D.C. 20301	1
143	Dr. James Roche Captain, U.S. Navy (Ret.) Northrop Analysis Center 2 Lafayette Centre 1133 21st Street, NW Washington, DC 20036	1
144	Peter Rodman The Paul H. Nitze School of Advanced International Studies The Johns Hopkins University 1619 Massachusetts Ave., N.W. Washington, D.C. 20036	1
145	Dr. H. Roop Rear Admiral, U.S. Naval Reserve (Ret.) Commandant (DIC) Defense Intelligence College Washington, D.C. 20340-5485	1

146	Gayle J. Rosander Librascope Division The Singer Company 833 Sonora Avenue Glendale, CA 91201	1
147	Dr. Alvin Z. Rubinstein Professor of Political Science University of Pennsylvania Philadelphia, PA 19104-6215	1
148	J. W. Russel Rear Admiral, U.S. Navy (Ret.) Manager, Systems Analysis Boeing Aerospace P. O. Box 3999, 8R-83 Seattle, WA 98124-2499	1
149	Dr. Scott Sagan Department of Political Science Building 160 Room 162D Stanford University Stanford, CA 94305	1
150	Joachim E. Scholz Colonel, U.S. Air Force (Ret.) President, Orion Research 1811 Abbey Oak Drive Vienna, VA 22180	1
151	Dr. Paul Schratz Captain, U.S. Navy (Ret.) Sea Breezes 141 Dalkeith Glen Arnold, MD 21012	1
152	Dr. William F. Scott Colonel, U.S. Air Force (Ret.) 918 Mackall Ave. McLean, VA 22101	1
153	CAPT Larry Seaquist, USN ODUSD/P (S&R) Pnt Room 4E829 Office of the Secretary of Defense Washington, D.C. 20301	2
154	James Service Vice Admiral, U.S. Navy (Ret.) 8 Scarlet Road Carmel Valley, CA 93924	1

155	CDR Joseph Sestack, USN J-8, Pnt Room 1D940 Office of the Joint Chiefs of Staff Washington, D.C. 20301	1
156	Allison Shanck Deputy Director of Education The Atlantic Council of the U.S. 1616 H Street, N.W. Washington, D.C. 20006	1
157	Dr. Peter Sharfman MS-Z521 The MITRE Corporation 7525 Colshire Drive McLean, VA 22102	1
158	CAPT Terry R. Sheffield, USN Deputy Chief of Staff, Plans & Policy CINCUSNAVEUR - Box 9 FPO New York, NY 09510-0151	2
159	CAPT Wes Small, USN 8 Shepherd's Knoll Seventeen Mile Drive Pebble Beach, CA 93953	1
160	Dr. Perry Smith Major General, U.S. Air Force (Ret.) P.O. Box 15666 Augusta, GA 30919-1666	1
161	Don Snider Colonel, U.S. Army (Ret.) Center for Strategic & International Studies Suite 400 1800 K Street, N.W. Washington, D.C. 20006	1
162	CAPT James Stark, USN Executive Director OP-OOK CNO Executive Panel Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302	2
163	RADM Joseph C. Strasser, USN President Naval War College Newport, R.I. 02840	1

164	Dr. Georgi Sturua Institute of World Economy & International Relations Porfsoyuznaya UL. 23 Moscow, USSR	1
165	LTG Gordon R. Sullivan, USA Deputy Chief of Staff for Operations & Plans DAMO-ZA Pnt Room 3E634 Office of Army Chief of Staff Washington, D.C. 20310-0200	1
166	CAPT Peter M. Swartz, USN Special Assistant to the Chairman Office of the Joint Chiefs of Staff Pnt Room 2E857 Washington, D.C. 20318-0001	2
167	LCDR Sam Tangreti, USN Navy Federal Executive Fellow The Hoover Institution Stanford University Stanford, CA 94305-6010	2
168	Clayton J. Thomas HQ USAF/SAN Pnt Room 1E386 Air Force Staff Washington, D.C. 20330-5420	1
169	CAPT Michael Tiernan, USN USDAO American Embassy APO New York 09170-5000	1
170	Dr. Geoffrey Till Department of History and International Affairs Royal Naval College - Greenwich London SE109NN UNITED KINGDOM	1
171	RADM Ralph L. Tindal, USN OP-65, Pnt Room 4E572 Office of the Chief of Naval Operations Washington, D.C. 20350	1
172	Dr. Henry Trofimenko The W. Averell Harriman Institute for Advanced Study of the Soviet Union Columbia University 420 West 118th Street New York, NY 10027	1

173	Ola Tunander International Peace Research Institut. Fuglehauggt. 11 N-0260 Oslo 2 NORWAY	1
174	CAPT Daniel T. Twomey, USN Strategic Concepts Development Center NDU-NSS-SCDC National Defense University Ft. Leslie J. McNair Washington, D.C. 20319-6000	1
175	Edward B. Vandiver Director USA Concepts Analysis Agency 8120 Woodmont Avenue Bethesda, MD 20814-2797	1
176	Frank Vega FJV Company 219 N. Greenbrier Arlington, VA 22203	1
177	Eugene P. Visco USA MISMA Room L101 1900 Half Street Washington, D.C. 20324	1
178	CAPT William C. Vivian, USN Deputy Chief, Policy & Programmes Branch Policy/HPP Supreme Headquarters Allied Powers, Europe B-7010, SHAPE, Belgium APO New York 09055	2
179	Dr. Michael Vlahos Director, Center for the Study of Foreign Affairs Foreign Service Institute U.S. Department of State 1400 Key Blvd. Arlington, VA 22209	1
180	Dr. Bruce W. Watson Commander, U.S. Navy (Ret.) 5004 Gunpowder Rd. Fairfax, VA 22030	1
181	Gregory P. Webb Arms Control Today Arms Control Association 11 Dupont Circle, N.W. Washington, D.C. 20036	1

182	Francis J. West The Gamma Corporation 5205 Leesburg Pike #508 Falls Church, CA 22041	1
183	James T. Westwood Lieutenant Commander, U.S. Navy (Ret.) 3156 Cantrell Lane Fairfax, VA 22031	1
184	Richard Wiles Colonel, U.S. Army (Ret.) Executive Director Military Operations Research Society Suite 202 - Landmark Towers 101 South Whiting Street Alexandria, VA 22304	1
185	Cindy Williams Space Defense Systems M/S T140 The MITRE Corporation Burlington Road Bedford, MA 01730	1
186	Dr. John A. Williams International University Seminar on Armed Forces University of Chicago Box 46 1126 East 59th Street Chicago, IL 60637	1
187	CAPT G.A.S.C. Wilson, RN Head of Defence Studies (RN) Room 5391 Main Building Ministry of Defence Whitehall London SW1A 2MB UNITED KINGDOM	1
188	James Winnefeld Rear Admiral, U.S. Navy (Ret.) Suite 800 The RAND Corporation 2100 M Street, N.W. Washington, D.C. 20037-1270	1
189	Dr. Thomas-Durrell Young Strategic Studies Institute U.S. Army War College Carlisle Barracks, PA 17013-5050	1

190	Dr. Henry Young 60 Whittier Street Andover, MA 01810	1
191	Dr. Dov Zakheim Systems Planning Corporation 1500 Wilson Blvd. Arlington, VA 22209	1
192	Chairman Department of National Security and Strategy U.S. Army War College Box 484 Carlisle Barracks, PA 17013-5050	1
193	Chairman, Department of Strategy National War College Ft. Leslie J. McNair Washington, D.C. 20319-6000	1
194	Director War Gaming & Simulation Center National Defense University Ft. Leslie J. McNair Washington, D.C. 20319-6000	1
195	Library Air War College Maxwell AFB, AL 36112	1
196	Library Armed Forces Staff College 7800 Hampton Blvd. Norfolk, VA 23511-6097	1
197	Library Army Command & General Staff College Ft. Leavenworth, KS 66027	1
198	Library Army War College Carlisle Barracks, PA 17013-5050	1
199	Library of Congress Attn: Sherry Shapiro LM - 221 Washington, D.C. 20540	1
200	Library International Institute for Strategic Studies 23 Tavistock Street London WC2E 7NQ UNITED KINGDOM	1

- 201 Library 1
National War College
Ft. Leslie J. McNair
Washington, D.C. 20319-6000
- 202 Library 1
Naval War College
Newport, R.I. 02841
- 203 Library 1
RAND Corporation
1700 Main Street
P.O. Box 2138
Santa Monica, CA 90406-2138
- 204 Library 1
Royal United Services Institute for
Defence Studies
Whitehall, London SW1A 2ET
UNITED KINGDOM
- 205 Gregory F. Treverton 1
Council on Foreign Relations
58 East 68th Street
New York, NY 10021
- 206 CAPT Shannon Butler, USN 1
Commanding Officer
NROTC Unit
University of Kansas
Lawrence, KS 66045