



**THE
LAND
WARFARE
PAPERS**

No. 7 SEPTEMBER 1991

**Gathering the Storm:
Contingency Planning
and
Force Projection**

By Paul Tiberi and James C. Wendt

A National Security Affairs Paper
Published on Occasion by

**THE INSTITUTE OF
LAND WARFARE**

ASSOCIATION OF THE
UNITED STATES ARMY
Arlington, Virginia

**GATHERING THE STORM:
CONTINGENCY PLANNING AND FORCE PROJECTION**

by

Paul Tiberi and James C. Wendt

**THE INSTITUTE OF LAND WARFARE
ASSOCIATION OF THE UNITED STATES ARMY**

AN AUSA INSTITUTE OF LAND WARFARE PAPER

In 1988 the Association of the United States Army (AUSA) established within its existing organization a new entity known as the Institute of Land Warfare. Its purpose is to extend the educational work of AUSA by sponsoring scholarly publications, to include books, monographs and essays on key defense issues, as well as workshops and symposia. A work selected for publication as a Land Warfare Paper represents research by the author which, in the opinion of the editorial board, will contribute to a better understanding of a particular defense or national security issue. Publication as a Land Warfare Paper does not indicate that AUSA agrees with everything in the paper but does suggest that AUSA believes the paper will stimulate the thinking of members and others concerned about important defense issues.

LAND WARFARE PAPER NO. 7, SEPTEMBER 1991

Gathering the Storm: Contingency Planning and Force Projection

by

Paul Tiberi and James C. Wendt

Colonel Paul Tiberi is Deputy G3, XVIII Airborne Corps. He received his B.A. from Pepperdine University and M.M.A.S. from the Command and General Staff College. He is a graduate of the Command and General Staff College, the School of Advanced Military Studies and the U.S. Army War College; he also served a fellowship at the Mershon Center's Program in International Security and Military Affairs, the Ohio State University. Assignments include company-level commands in special forces and infantry units; battalion command in the 82d Airborne Division; and Director of Plans, XVIII Airborne Corps.

Dr. James C. Wendt is Senior Analyst in the International Policy Department, the RAND Corporation, Santa Monica, California. He holds bachelor and masters degrees in physics from the University of Michigan, and a doctorate in sociology from the University of California at Berkeley. A former assistant professor of sociology at Columbia University, Dr. Wendt most recently has specialized in contingency operations and force projection. His previous work focused on the areas of conventional arms control, force development planning, theater nuclear weapons and related issues.

The paper represents the personal opinions of the authors and should not be taken to represent the views of the Institute of Land Warfare, the Association of the United States Army or its members.

Inquiries regarding this and future Land Warfare Papers should be directed to: Association of the United States Army, Institute of Land Warfare, 2525 Wilson Boulevard, Arlington, Virginia 22201, telephone 1-800-336-4570 or (703) 841-4300.

CONTENTS

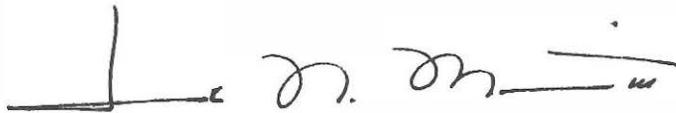
Foreword	v
Introduction	1
The Development of USCENTCOM	2
Emergence of U.S. Rapid Deployment Forces.....	2
The Shifting Focus of Contingency Plans.....	5
Responding to the Threat	7
Prelude to War.....	7
Check!.....	8
The Deployment in Perspective	13
Forces.....	13
Deployment Times.....	14
Mission Capabilities.....	15
Comparative Force Buildups in Theater.....	16
Implications for Contingency Planning and Force Projection	18
Future Contingency Planning.....	18
Force Projection.....	20
Notes	22

FOREWORD

This essay makes it clear that contingency operations, while unique, are not new. Indeed they manifest a concern that has ebbed and flowed for decades. Nor is the notion of a rapid deployment force unique. Previously termed Quick Strike Force, Strike Command, Unilateral Intervention Force, Quick Reaction Force and Rapid Deployment Joint Task Force, it signified the need for highly skilled and ready forces capable of moving quickly to any trouble spot in the world to secure our nation's interests.

New, however, is the idea that this *modus operandi* will be the rule rather than the exception for U.S. armed forces. The authors do not advocate a specific organizational structure for these forces, nor do they propose tactical and operational paradigms for the conduct of these campaigns. Instead, based on analysis of Desert Shield deployments, they identify some important challenges in planning for the projection of such forces.

The reader may not agree with all that the authors present. But their compelling argument stretches one's intellectual curiosity to suggest reasonable alternatives.

A handwritten signature in black ink, appearing to read 'J. N. Merritt', is written over a horizontal line.

JACK N. MERRITT
General, USA Ret.
President

September 1991

GATHERING THE STORM: CONTINGENCY PLANNING AND FORCE PROJECTION

*The more the belligerent states are involved and drawn into
(war's) vortex ... the more imperative the need not to
take the first step without considering the last.¹*

INTRODUCTION

The thaw in East-West relations heads the list of significant changes in the geopolitical environment that have profound implications for U.S. military strategy. One implication in the U.S./Soviet rapprochement and the reduction of tensions is that U.S. interests can be achieved and security maintained with fewer forward deployed forces. This means, in turn, a return to a military predominantly based in the continental United States. The sine qua non of such a military force is its rapid projection to areas of the world where U.S. interests are threatened. This increased emphasis on the projection of force poses a different set of challenges to the military than it faced during the previous 45 years.

This paper identifies some important new challenges in planning for future force projections and in implementing these plans. It also suggests some possible actions to meet these challenges. We use the recent experience of Operation Desert Shield because it highlighted some solutions, as well as some problems, for U.S. force projection. But, because this experience was unique, great caution must be taken not to learn "generalizable" lessons that are not. We begin by describing the evolution of U. S. Central Command (USCENTCOM) — the organization primarily responsible for planning and executing Desert Shield/Storm. Next, we describe how this organization responded to the Iraqi threat. Then, we put the force projection in perspective by examining some problems that arose in this deployment which could arise in future deployments. Finally, we conclude with some implications for future force projections.

THE DEVELOPMENT OF USCENTCOM

Emergence of U.S. Rapid Deployment Forces

U.S. contingency forces have their roots in the Kennedy administration. Shortly after he took office, President Kennedy enunciated a strategy of flexible response. At the same time, Secretary of Defense Robert McNamara created an organization with the mission of “furnishing rapidly deployable, combat-ready forces.”² To support this new command, the Department of Defense (DoD) planned to develop the long-range C-5 cargo aircraft and forward-deployed logistic (FDL) ships. The C-5/FDL program took so long to develop, however, that by the time the Johnson administration presented it to Congress, the United States was deeply involved in Vietnam — the war that shifted national sentiment radically against overseas deployment of U.S. forces.

Senator Richard Russell, chairman of the Senate Armed Services Committee, torpedoed the FDL concept by arguing that the U.S. could ill afford to be the world’s policeman. In a precursor of what came to be labeled the *Utgoff Principle* during the Carter administration, Russell suggested the ships would create an overpowering temptation for a president to intervene.³ Moreover, responding to pressure from the merchant marine lobby, the House of Representatives eliminated funds that had been authorized for construction of FDL ships on the basis that they represented a point-to-point cargo capability that would work to the detriment of private operators. In fact, the House implicitly tied funding for a fourth C-5 squadron to cancellation of the FDL program.

Following the U.S. ordeal in Indochina, a reemphasis on NATO put contingency forces in limbo for a decade. The “one-and-one-half-war strategy” pursued a de facto NATO-only rather than NATO-first policy.⁴

The spotlight began to shift back to a rapid deployment concept in the late 1970s. Following the pattern of previous administrations, President Carter called for a review of national security commitments and capabilities. The effort produced a series of memoranda and directives, one of which served as the conceptual basis for rapid deployment forces (RDF). Initially, the concept received little attention. In fact, in his first report to Congress in February 1978, Secretary of Defense Harold Brown made only passing reference to the rapid deployment concept.⁵ But later that month the media picked up on the significance of an RDF. Citing Secretary Brown, one journal described an elite military strike force, ready to rush to trouble spots around the world; the core of that force would consist of the Army’s 82d Airborne and 101st Air Assault Divisions, and one Marine division. Another report suggested the Pentagon would improve the strategic lift for these forces and that two to four aircraft carrier task forces with up to three Air Force wings would back up the strike force.⁶

Not surprisingly, Secretary Brown's subsequent report to Congress in January 1979 justified the RDF concept by arguing that "we must have sufficient capabilities to permit the rapid movement of substantial forces to threatened theaters." In describing mobility forces his report added, "In particular, we want to have the capability to deploy quickly at least a small force to distant locations without reliance on foreign bases or overflight rights."⁷

The Army was the first service to acknowledge publicly its interest in the RDF. During his final press conference as Army Chief of Staff in June 1979, General Bernard Rogers described the forthcoming creation of a "Unilateral Corps." He emphasized that its forces would come from those not committed to reinforce NATO; the XVIII Airborne Corps, augmented by the other services, would comprise the core of that force.

For the rest of 1979, the media and official Washington sources referred to the RDF variously as the "Quick Strike Force," the "Unilateral Intervention Force" and the "Unilateral Intervention Corps." Since the term "unilateral intervention" conjured up images of neocolonialism, it soon disappeared.⁸

Later that year, the fall of the Shah of Iran collapsed a key pillar in the U.S. strategy for the Middle East and accelerated efforts to flesh out the RDF concept. In October 1979 Carter officially announced formation of an RDF. This force, ostensibly with a global orientation, would level its attention on the Gulf. The Soviet invasion of Afghanistan in December 1979 precipitated this narrowing of focus. The resulting Carter Doctrine proclaimed the Gulf a vital interest of the United States and declared that any outside attempt to gain control in the area would be "repelled by use of any means necessary, including military force."⁹

In February 1980 Brown ordered Lieutenant General P.X. Kelley, USMC, to begin operating the Rapid Deployment Joint Task Force (RDJTF) on March 1, 1980. Evolving interpretations of the RDJTF's purpose and geographic orientation imposed repeated changes on its command structure. Initially, it was adjoined to the U.S. Readiness Command at MacDill AFB, Florida, except when actually conducting operations, at which time it would come under direct command of the Secretary of Defense through the Chairman, Joint Chiefs of Staff. Not surprisingly, this command relationship proved unsatisfactory, since the RDJTF's commander could not communicate routinely with the Secretary of Defense or Chairman, Joint Chiefs of Staff. These and other difficulties led some pundits to proclaim the RDF was "neither rapid, nor deployable, nor much of a force."¹⁰

On April 24, 1981, Secretary of Defense Caspar Weinberger announced that the RDJTF would become a separate command with specific geographic responsibilities. On January 1, 1983, U.S. Central Command (USCENTCOM) officially became the sixth U.S. unified command, its area of responsibility 19 of the nations on the Asian and African continents, including the waters of the Red Sea and Persian Gulf. The establishment of USCENTCOM gave the United States a mechanism to plan and structure command and

control arrangements for contingencies in the region. By late 1983 USCENTCOM also took on the function of administering U.S. security assistance programs throughout the Middle East.

TABLE 1	
INITIAL U.S. RAPID DEPLOYMENT FORCES	
COMBAT FORCES	NUMBERS OF PERSONNEL
ARMY	100,000
<ul style="list-style-type: none"> 24th Infantry Division (Mechanized) 82d Airborne Division 101st Airborne Division (Air Assault) 197th Separate Infantry Brigade (Mechanized) 6th Combat Brigade Air Cavalry (CBAC) 	
AIR FORCE	30,000
<ul style="list-style-type: none"> 1st Tactical Fighter Wing (F-15) 27th Tactical Fighter Wing (F-111) 347th Tactical Fighter Wing (F-4) 354th Tactical Fighter Wing (A-10) 366th Tactical Fighter Wing (F-111) 552d Airborne Warning and Control Wing (E-3) 150th Tactical Fighter Group, ANG (A-7) 121st Tactical Fighter Wing, ANG (RF-4) 	
NAVY	42,000
<ul style="list-style-type: none"> 3 aircraft carrier battle groups 1 Amphibious Ready Group 5 squadrons of antisubmarine warfare patrol aircraft 18 near-term prepositioning ships 	
MARINE CORPS	50,000
<ul style="list-style-type: none"> 1st Marine Expeditionary Force 7th Marine Expeditionary Brigade 	
TOTAL	222,000

With its headquarters at MacDill AFB, USCENTCOM is the only unified command not located in its area of responsibility. Thus, in addition to the traditional challenges of deploying and employing fighting forces, it must tackle the hurdles of strategic lift, sustainment of forces in the region, acquisition and provision of intelligence, and establishment of reliable communications networks — all without benefit of in-place forces, infrastructures, host nation support agreements and long-term alliances. To alleviate some of these difficulties and to work with U.S. embassies in carrying out

regional programs, USCENTCOM collocated a small Forward Headquarters Element afloat with the Middle East Force in the Persian Gulf.¹¹

Typical of unified commands, USCENTCOM is organized into six major staff directorates as well as special staff agencies. Its forces come from all four military services. The Chairman, Joint Chiefs of Staff allocates forces and other resources to USCENTCOM (as he does to the other unified combatant commands) to effect theater national objectives. Depending on the requirements of a particular contingency, forces are tailored to accomplish specific military objectives. Component forces initially allocated for contingency planning to USCENTCOM are shown in table 1.¹²

Special Operations Central Command rounded out forces designated for contingency planning. This command comprised various units, including Army rangers and special forces, USAF special operations squadrons and a Navy special warfare task group. Throughout the 1980s, forces available to USCENTCOM for contingency planning changed as often as its organizational structure. Eventually, DoD added two more Army divisions, a second Marine Expeditionary Force and three Air Force tactical fighter wings. But unlike the initial forces, these also were designated as NATO reinforcements. Therefore, the threat to Europe would determine whether or not they would be available in a Middle East crisis. Indeed, many considered this strategy, which in effect imposed dual missions on the forces, a political shell game.¹³

The Shifting Focus of Contingency Plans

DoD configured the contingency force primarily to counter what the Carter and Reagan administrations believed to be the most serious threat to Southwest Asia: a Soviet invasion of Iran.¹⁴ But many experts challenged the wisdom of policies and contingency plans for the Gulf. Although most criticism centered on the feasibility of deploying forces large enough and quickly enough to defeat a Soviet invasion, there was also considerable skepticism about the likelihood of such an invasion. Prodded by such genuine concerns, USCENTCOM “wargamed” variations to the basic plan throughout the 1980s. Such efforts became the catalyst for productive joint and combined exercises. Absent formal treaties with Gulf states, exercises such as SHADOW HAWK, BRIGHT STAR, GALLANT EAGLE and GALLANT KNIGHT galvanized relationships and became the conduit for building theater infrastructures.¹⁵ P.X. Kelley’s successor, General Robert Kingston, affirmed the net effect of these enterprises:

In 1980, had the President of the United States directed the military to send a sizable force to the Middle East ... nobody, at that time, could have told [him] where the force would come from, what the force would consist of, how long it would take them to get there, how they would get there, how they would be sustained, and who would be in command. I can answer all those questions now.¹⁶

These answers are paramount to any strategic evaluation of a military course of action. Rapid and accurate estimates of military capability at the onset of a crisis constitute critical steps in the political calculus of whether or not to adopt a military option. Thus, although contingencies seldom unfold as planned, the closer contingency plans correlate to the actual crisis, the more useful estimates are to decision-makers. It was no accident that General H. Norman Schwarzkopf altered the focus of USCENTCOM contingency plans shortly after taking over as commander-in-chief. In light of dramatic changes in the Soviet Union, he demanded a rethinking of strategy in his region. Pushing to overcome previous U.S. obsession with the Soviets, he crusaded for a series of plans which focused on intraregional threats. As a result, a year before Iraq invaded Kuwait, USCENTCOM was evoking contingency plans to counter Iraqi attempts at hegemony in the region. Hard work and farsighted thinking would enable the military leadership to answer the president's questions when the trumpets summoned.¹⁷

RESPONDING TO THE THREAT

Operation Desert Shield and Operation Desert Storm are so intertwined, yet so distinct. Desert Shield was a contingency operation undertaken to deter and, if necessary, defend Saudi Arabia against an Iraqi invasion. Desert Storm, on the other hand, was its sequel whose purpose was to liberate Kuwait and restore its sovereignty, legitimate government and territorial integrity. The two operations were thus sequential but distinct military campaigns.¹⁸

The differing roles of the military in the two campaigns bear important implications for future contingencies. The “grand strategy” in both campaigns applied allied military, diplomatic, economic and psychological power in complementary fashion. In Desert Shield the combination of these elements resembled a geopolitical “hammer and anvil,” whereby military force contained Iraq’s aggression while the other components coerced Saddam Hussein to acquiesce to relevant United Nations resolutions. Diplomatic, economic and psychological measures were still pervasive in Desert Storm; but military force emerged as the principal means to achieve the stated political objectives.¹⁹

The transformation in policy and corresponding shift in military strategy reflected the coalition’s conclusion that diplomacy and economic sanctions would not compel Saddam Hussein to comply with U.N. resolutions. (In fact, this shift in policy was the locus of heated debate in the country from January 10 to 12, 1991, as Congress argued passionately whether or not to grant President Bush authority to use military force.)²⁰ Because this paper aims to sketch the implications for future contingency operations, its focus must be Desert Shield and not the more exhilarating Desert Storm. Furthermore, contingency operations had concluded by the end of October; subsequent activities — especially major reinforcements beginning in November — aimed at affecting the offensive campaign, Desert Storm. Consequently, we will focus on activities only to the end of October.

Prelude To War

On July 16, 1990, Iraq protested to the Arab League regarding Kuwaiti oil production and pricing policies. On the following day Saddam Hussein threatened to use force to solve these grievances. On the next day, he intensified air activity and moved two Iraqi divisions toward the Iraqi-Kuwaiti border. On July 21, responding to those increasing tensions, the United Arab Emirates (UAE) requested KC-135 support for their Mirage fighters. At the same time, they warned that additional American presence in the region risked heightening tensions. Although intelligence estimates assessed military action by Iraq as unlikely, Secretary of Defense Dick Cheney approved the request on the following day.

Throughout July, Kuwaiti and Saudi forces raised and lowered their alert status in reaction to events. The competing objectives of responding to the Iraqi buildup, while not appearing provocative, resulted in ambiguous Kuwaiti-Saudi responses and conveyed mixed signals to Saddam Hussein. On July 26 the OPEC oil ministers met. Most Arab leaders viewed the outcome of their talks with optimism that the sprouting crisis could be resolved peacefully. But, on the following day, six Iraqi divisions hovered on the Iraqi-Kuwaiti border. Meetings were scheduled between Iraq and Kuwait to resolve their differences but were ultimately postponed until July 31. Meanwhile, Arab leaders initiated diplomatic efforts to lessen the tension. Iraqi-Kuwaiti talks, sponsored by Egyptian president Hosni Mubarak, took place on July 31 but broke down on August 1.²¹

On August 2, 1990, at Aspen, Colorado, President Bush offered a glimpse of the new strategic vision that would govern future U.S. military strategy. On the same day, Cheney and the chairman of the Joint Chiefs of Staff, General Colin L. Powell, were amplifying the president's remarks to the ranking members of the congressional committees that oversee American national security policy. While Cheney and Powell were mapping the nation's new strategic course, Iraq invaded Kuwait.²² In marked contrast to its sluggish eight-year war against Iran, Iraq quickly digested the paltry Kuwaiti armed forces and, in less than 36 hours, established control over what it declared as its 19th province.²⁰

Check!

During the prelude to the Gulf War, political factors constrained U.S. and allied military options. Most political leaders had concluded that Iraq was merely posturing to influence negotiations. Particularly in the Arab world, regional leaders determined military force would not be necessary. This unspoken consensus steered them away from requesting U.S. assistance. Furthermore, most Arabs clearly desired to minimize Western intervention. But as intelligence sources revealed the Iraqi Army poised along the Kuwaiti-Saudi border, Saudi Arabia officially asked for direct military assistance.

Unfettered by the East-West geopolitical tug-of-war, the U.S. proceeded to forge an unprecedented international coalition to curb Iraq's aggression. The U.N. Security Council immediately and unanimously passed Resolution 660 which condemned the Iraqi invasion, demanded that Iraq immediately and unconditionally withdraw all its forces from Kuwait and called on Iraq and Kuwait to begin intensive negotiations to resolve their differences.²⁴ On August 6, Resolution 661 bolstered the tough rebuke by establishing a de facto economic embargo on Iraq.²⁵

On August 7, President Bush ordered American forces to the region. The political objectives were the withdrawal of Iraqi forces from Kuwait, restoration of the Kuwaiti government, safeguarding of American lives and regional stability. The military mission was equally clear-cut: to deter further Iraqi aggression, to defend Saudi Arabia should deterrence fail and to use deployed forces to enforce an economic embargo on Iraq.²⁶

USCENTCOM translated the strategic objectives into force requirements. It may be some time before we know precisely how General Schwarzkopf intended to use military force when first given the mission. But whatever his initial employment plan, the military force needed to be sufficiently flexible to respond to changes in the political arena. Moreover, this force had to deploy quickly and possess the lethality to fight effectively and win, if necessary. The combination of a potent enemy and limited strategic lift created three separate and distinct phases of Desert Shield: deterrence, defense and coercion.²⁷

Phase I: Deterrence. The intent of the military deployment, which began within hours of the president's decision, was to demonstrate to Saddam Hussein that an Iraqi invasion of Saudi Arabia would confront U.S. military power.²⁸ The first rapid reaction forces arrived in Saudi Arabia on August 10 and consisted of F-15Cs from the 1st Tactical Fighter Wing and a task force organized around the 82d Airborne Division's 2d Brigade. Five E-3A AWACS aircraft from the 552d Airborne Warning and Control Wing followed closely behind. Then came F-16s from the 363d Tactical Fighter Wing and lead elements of the Army's 11th Air Defense Artillery Brigade, both of which began arriving in the region on August 12. The early airlift also included armaments and other essential materials for command and control, intelligence and sustainment operations.

On August 14 another brigade task force from the 82d began arriving in theater. At the same time lead elements of the 7th Marine Expeditionary Brigade (MEB) arrived at the port of Al Jubayl, Saudi Arabia, already secured by units from the 82d's 2d Brigade. Concurrently, the first of five ships from Diego Garcia, comprising 7th MEB's maritime prepositioning ship (MPS) squadron, began to offload equipment and supplies at the port.²⁹ All these forces depended on the transatlantic refueling air bridge formed by KC-135 and KC-10 tankers from Strategic Air Command (SAC) and other combat, support and services organizations.³⁰ Moreover, the United States had already made preparations to "provide a presence" in the region. Forward deployed ships from the U.S. Middle East Force were put on alert at the onset of the crisis and two forward-deployed carrier battle groups, USS *Independence* from the Seventh Fleet (Indian Ocean) and USS *Eisenhower* from the Sixth Fleet (Eastern Mediterranean), moved at flank speed to the Gulf of Oman and the Red Sea respectively.³¹ The first ship arrived on August 15, within eight days of the president's order.³²

Phase II: Defense. As the crisis mounted, additional attack and fighter aircraft, maritime forces and land forces deployed into the theater of operations. On August 7, Military Sealift Command (MSC) activated the eight fast sealift ships (FSS) and 10 of the 12 afloat positioning ships (APS).³³ At Savannah, Georgia, seven FSS loaded equipment from the Army's 24th Infantry Division (Mechanized). The eighth ship loaded equipment from the 1st Corps Support Command at Wilmington, North Carolina (both units are assigned to XVIII Airborne Corps). The first ship sailed from Savannah on August 13 and arrived in theater on August 27.³⁴ As of September 10, seven ships had arrived, offloaded their equipment and turned back to the United States for additional

cargo. During the round trip to the Arabian Gulf, a number of these ships experienced mechanical problems that delayed subsequent reinforcements.³⁵ The eighth ship experienced boiler problems after leaving Savannah on its first transit and had to be taken under tow by an ocean tug to Rota, Spain, for repairs.³⁶ At the same time, 4th MEB at Camp Lejeune, North Carolina, a self-sustained amphibious force with organic aviation, left East Coast ports beginning on August 13 aboard 13 Navy amphibious ships, including the helicopter carriers USS *Nassau*, USS *Guam* and USS *Iwo Jima*. This force arrived in the region by September 16, prepared for amphibious assaults or other operations directed by the Commander-in-Chief.³⁷

By August 14, additional tactical fighter and attack wings as well as KC-10, KC-135, RC-135 and AWACS units began arriving. The USS *Wisconsin* departed East Coast ports on August 7 for a scheduled Sixth Fleet deployment, proceeded through the Suez Canal on August 17 and moved into the Gulf on August 24. A third and fourth U.S. Navy carrier battle group deployed to the area as well. The *Saratoga* carrier battle group went through the Suez Canal on August 22 to relieve USS *Eisenhower*, which had been deployed since March 1990, and the *Kennedy* carrier battle group loaded and departed East Coast ports on August 15 to take up station in the Mediterranean and support USCENTCOM operations as needed.³⁸

Meanwhile, Military Airlift Command (MAC) parceled out lift aircraft to move additional land forces to the Arabian Peninsula. Although aircraft intensive, the lead brigade task force of the 101st Airborne, the Army's air assault division, moved by air to provide the flexibility and lethality of its attack and assault helicopters as soon as possible. This unit began arriving on August 18. The 82d's third brigade task force began moving on August 21 via airlift, as did the 13th Marine Expeditionary Unit (MEU) on August 22. The 1st MEB started deployment from Kaneohe Bay, Hawaii, on August 26 to marry up with equipment and supplies carried by its four MPS ships from Guam.

Two hospital ships, USNS *Comfort* and USNS *Mercy*, activated on August 10, deployed to the Middle East on August 14 and August 15 respectively, and arrived on station in mid-September. Lastly, three minesweepers and USS *Avenger*, a mine countermeasures ship, departed Norfolk, Virginia, on August 23 en route to the Gulf region.³⁹

August 22 marked an historic event. The president invoked, for the first time, his Selected Reserve call-up authority. The Pentagon ordered to active duty reserve units and individuals who performed myriad tasks both in the United States and in and around the Arabian Peninsula. The most immediate need was for personnel to fill strategic lift requirements. Also needed were Army logistics, transport and port terminal units as well as medical specialists for all services. In addition to those called up, many reservists and guardsmen supported the operation on a volunteer basis. Though some displeasure was voiced over the decision not to deploy the National Guard round-out brigades, the unique contributions and personal sacrifices of reservists, their families and their communities expedited the deployment and galvanized support for the president's policies.⁴⁰

Phase III: Coercion. By mid-September, the Iraqis had allowed the United States to move formidable military forces into the theater. While short of the combat power required to implement an offensive option, the existing combination of air, land and naval forces guaranteed continuing access to ports and airfields through which many more units would follow. But the additional forces for unrestrained military operations would soon stress U.S. sealift capability.

Anticipating the requirement, the U.S. Transportation Command set in motion a number of sealift programs. By mid-September, it had activated 40 ships from the Ready Reserve Force (RRF) exclusively for Operation Desert Shield; not surprisingly, first requests were for the fleet's 17 roll-on/roll-off ships. Also, 10 cargo ships, 56 barges and three tankers were chartered from U.S.-flag operators, augmenting the five which had been chartered from them prior to Desert Shield. The command also chartered another 35 ships from foreign-flag operators, augmenting the three which they had already provided at no cost. A summary of ships used through September 1990 is at table 2.⁴¹

TABLE 2
SEALIFT FOR DESERT SHIELD

Type	Available	Used
Maritime Prepositioning Ships (MPS)	13	9
Afloat Prepositioned Ships (APS)	12	10
Fast Sealift Ships (FSS)	8	8
Ready Reserve Force (RRF) Ships	96	40
Aviation Logistics Ships (TAVB)	2	2
Hospital Ships (TAH)	2	2
Prior-chartered MSC Ships	*	5
U.S.-flag Chartered Cargo Ships	*	10
U.S.-flag Chartered Barges	*	56
U.S.-flag Chartered Tankers	*	3
Foreign-flag Ships	*	38
Total	*	183

* Data not available.

These additional ships moved the 197th Separate Infantry Brigade (Mechanized) and two brigade task forces from the 101st. In addition, these ships, as well as the fast sealift ships on turnaround from the Gulf, moved the 3d Armored Cavalry Regiment (ACR), two brigades of the 1st Cavalry Division and the 2d Armor Division's Tiger Brigade. Throughout these movements, combat support, logistics and service units and supplies intermingled with the flow of forces into the theater; they constitute a major portion of military forces' combat power, but planners too often either relegate them to subsidiary efforts or neglect them altogether.⁴²

By the end of October 1990, U.S. forces totaled approximately 230,000 soldiers, sailors, marines and airmen with more than 660 combat aircraft and over 1,000 tanks. Deployed and proposed coalition ground forces for the Middle East constituted the equivalent of 20 allied divisions, consisting of almost 400,000 troops, equipped with over 2,500 tanks and supported by more than 900 naval and air force aircraft. The closure of these joint and combined forces provided a formidable counterweight to Iraq's 30-plus divisions in the Kuwaiti Theater of Operations. More important, this force was potent enough to generate some offensive action within the rubric of a strategic defensive.⁴³

THE DEPLOYMENT IN PERSPECTIVE

Without advance notice, the military conducted the deployment without proclamation of a national emergency. It used most, but not all, of available strategic lift assets. Nevertheless, the urgency of this deployment was as great as we might anticipate in any contingency short of a major war with the Soviet Union. Consequently, we can derive valuable insights from the deployment by examining the initial contingency forces, the time it took to move those forces, and their combat capabilities during the buildup. The U.S.-led coalition completely dominated the air and sea. But it is clear that the president decided USCENTCOM needed significant ground forces in the theater of operations before initiating offensive action. Accordingly, this section will address the relative combat power of opposing land forces.

Forces

The first ground units deployed were from the XVIII Airborne Corps (the Army's de facto contingency force) and a Marine Expeditionary Force. In the initial phase, the Corps contingent consisted of 24th Mechanized, 82d Airborne and 101st Air Assault Divisions, 197th Brigade and myriad other combat, combat support and combat service support units. The 82d moved by the sequential airlift of its three brigade task forces. An aviation task force from the 101st, comprised mainly of three attack helicopter battalions, also moved by air, thus providing considerable tactical mobility and increasing operational flexibility over the expansive desert topography. The 24th was the first unit that moved by sea and it deployed with the 197th attached. Other elements of the 101st also deployed by sea.

The Marine Corps initially sent three MEBs to the region. The 7th, with its MPS at Diego Garcia, and the 1st, with its MPS at Guam, were organized for operations ashore. The 4th, from Norfolk, was configured for amphibious operations. The arrival of the 7th and the 1st MEBs was critical as they contributed the first U.S. main battle tanks in theater of comparable capability to those possessed by the Iraqis. The arrival of the 4th MEB further increased the operational flexibility of coalition forces.

With the superiority of air power and absolute control of the seas, these Army and Marine units had sufficient armor, although vastly outnumbered, to blunt an Iraqi attack into Saudi Arabia. Because of the extent of the threat, however, the XVIII Airborne Corps received augmentation of 3d ACR, 1st Cavalry Division and the Tiger Brigade. The 3d ACR possesses considerable armor, but, in addition, the unit is uniquely trained to conduct covering force operations as well as large counterattacks against an enemy's flanks or rear. The addition of the 3d ACR thus gave General Schwarzkopf more forces, more armor and more mobility; and, it increased the menu of options available to him. The 1st Cavalry Division and the Tiger Brigade, armor heavy forces, added even more capability to allied forces and enabled Schwarzkopf to use offensive maneuver within an

overarching strategic defense. In addition, many nondivisional assets arrived, including Hawk and Patriot batteries, 84 tubes of 155mm artillery, 29 Multiple Launcher Rocket Systems (MLRS) and nine Army Tactical Missile System (ATACMS) batteries. Also, the 12th Aviation Brigade deployed from Europe to provide three additional attack helicopter battalions.

Deployment Times

The plan was to airlift the entire 82d to Saudi Arabia. Over the first 15 days of deployment, the division received between 20 and 25 airlift sorties per day. With this airlift allocation, the initial brigade task force completed its deployment by August 15, the second by August 21. The third had nearly finished when airlift priorities changed; consequently, its last elements did not arrive until September 9. The change in airlift priorities also delayed the arrival of the 101st's aviation task force until September 6.⁴⁴ The MEBs also arrived later than expected. The 7th's MPS, from Diego Garcia, delivered its last load on September 5; the 1st's MPS, from Guam, offloaded its last ship on September 2. The MPS with equipment for the 4th arrived in the waters off Saudi Arabia on September 16.

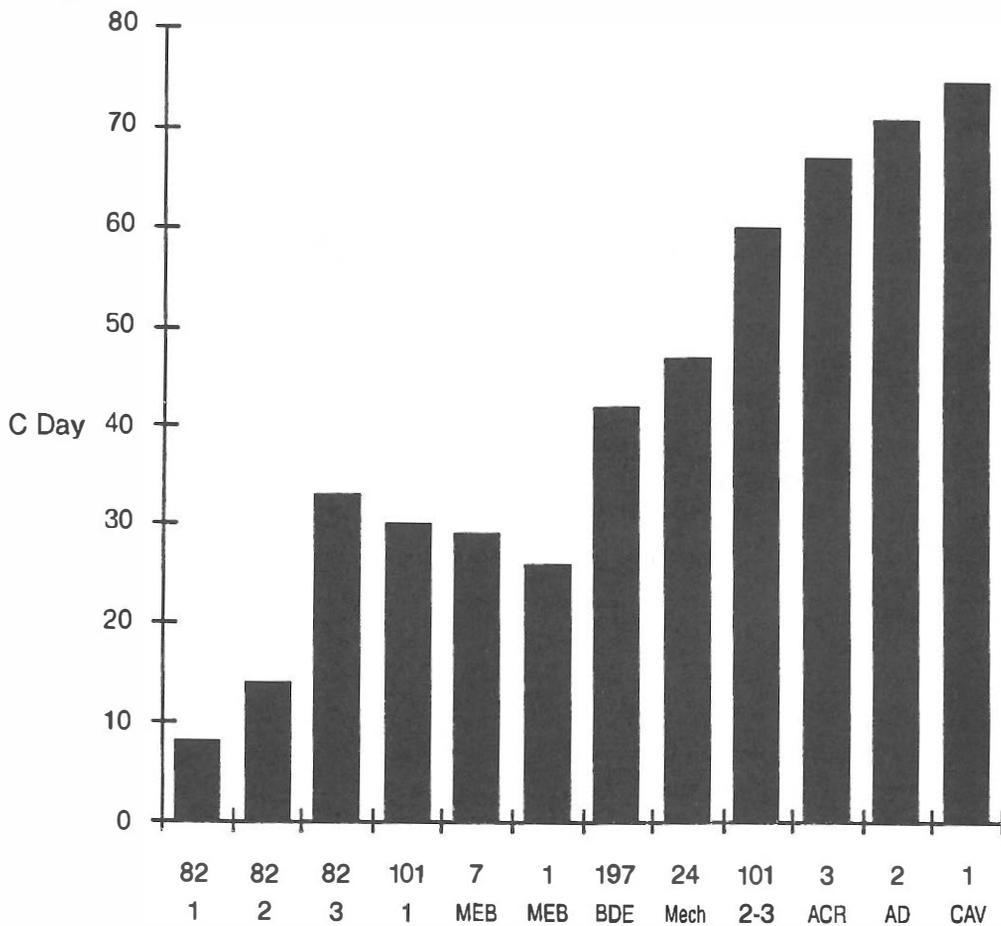


Fig. 1. Deployment of Land Combat Units (October 26)

Scheduled next was the 24th with its two mechanized brigade task forces and the 197th attached. The division's two brigades arrived on August 28 and September 1, respectively. The 197th did not close until September 25, but this is somewhat misleading because its closure was influenced by a number of other XVIII Airborne Corps assets that, although deployed with the 197th, actually supported other units. The last two brigades of the 101st reached port on October 4; the 3d ACR reached Saudi Arabia on October 13; and the two brigades of the 1st Cavalry Division and the Tiger Brigade arrived on October 25.⁴⁵

Mission Capabilities

The combat capability of different units varies considerably according to manpower, equipment, training and assigned mission. Moreover, capabilities are relative to particular threats and conditions of weather and terrain. Therefore, different units possess different capabilities in different situations. Nevertheless, it is useful to represent the Desert Shield land force buildup in some common metric. In our case, we will use division equivalent (ED) scores. These scores have many shortcomings. For example, they do not incorporate organic aviation assets, nor do they adequately illustrate the human dimension so pronounced in battle — morale, esprit, leadership, training proficiency and so forth. They do provide, however, a scale based on weapons, manpower and equipment which allows a comparison, in part, of the forces' relative combat power.

TABLE 3

LAND COMBAT POWER IN THEATER (OCTOBER 26, 1990)

Unit	ED Score
24th Mechanized Division + 197th SIB	0.94
82d Airborne Division	0.22
101st Air Assault Division	0.42
3d Armored Cavalry Regiment	0.38
1st Cavalry Division + Tiger Brigade	1.12
Marine Expeditionary Force	0.56
Total Division Equivalents	3.64

(Baseline ED is 1, based on armored division system.)

Using these scores and arrival times, figure 2 shows the force buildup. The force buildup was quite slow for the first three weeks, as the relatively light forces of the 82d Airborne Division arrived in theater. Then, it rose rather steeply as fast sealift and the Marine Expeditionary Brigades arrived. These forces were followed by more armored forces carried by ships from the Ready Reserve Force and by ships chartered from U.S. and foreign commercial firms. Figure 3 thus shows progressively more capable forces arriving in the Gulf over time. The theater commander could have used these forces for a number of differing missions at distinct times during deployment. It seems, therefore, that the forces were more complementary than redundant in their contribution to the overall strategic situation — a point to be remembered during the intractable debates about the roles and missions of the military services.

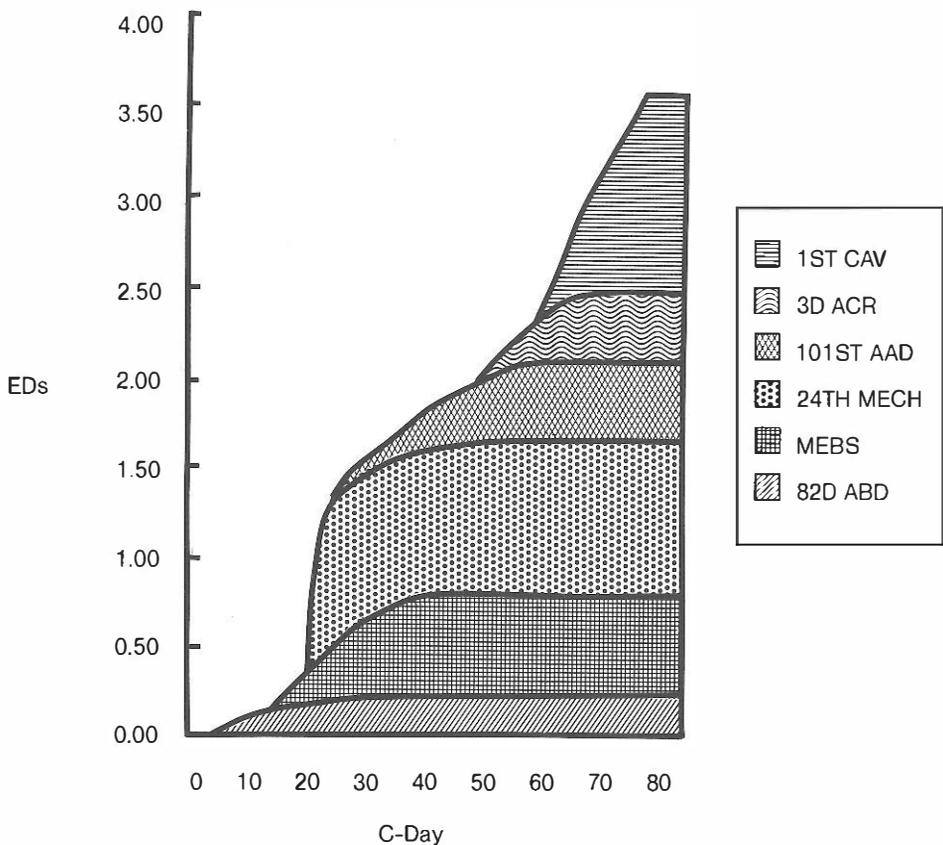


Fig.2. Force Buildup (through October 26)

Comparative Force Buildups in Theater

Of course, knowing the results of Desert Storm makes any assessment of relative capabilities during Desert Shield a tenuous proposition. Nevertheless, there were many favorable circumstances present by January 15 that were absent earlier. Perhaps an earlier war would have had the same results, but that was by no means clear at the time. Here, we present an assessment of the balance of equipment and manpower during the first 80 days of the crisis.

For this assessment, we presume Saudi and Gulf Cooperation Council (GCC) forces were ready on August 8. The Iraqis had only about 40 percent of their October 26 force in the Kuwaiti Theater of Operations at the beginning of the crisis and increased their forces somewhat linearly throughout this period.⁴⁶ Egypt moved its forces into Saudi Arabia at different times; the first arrived about September 26. Initial Syrian, United Kingdom (UK) and French forces arrived in the theater of operations by the end of October.⁴⁷ With these forces, force generation times and assigned ED scores, figure 3 shows the comparative buildup rates for forces in theater from August 7 to October 26. The graph shows that, before the arrival of U.S. forces in theater, the Iraqis had about three times the combat capability of the Saudi-GCC forces. As American and other coalition forces arrived, allied forces grew from about 1.23 EDs to about 6.26 EDs, of which 58 percent were American. During this same time, the Iraqis also increased their strength by moving additional forces in the south. By the end of this period, the Iraqis had over twice their original capability in the Kuwaiti Theater of Operations, but the buildups had reduced their relative advantage over the allies to about 1.5:1.

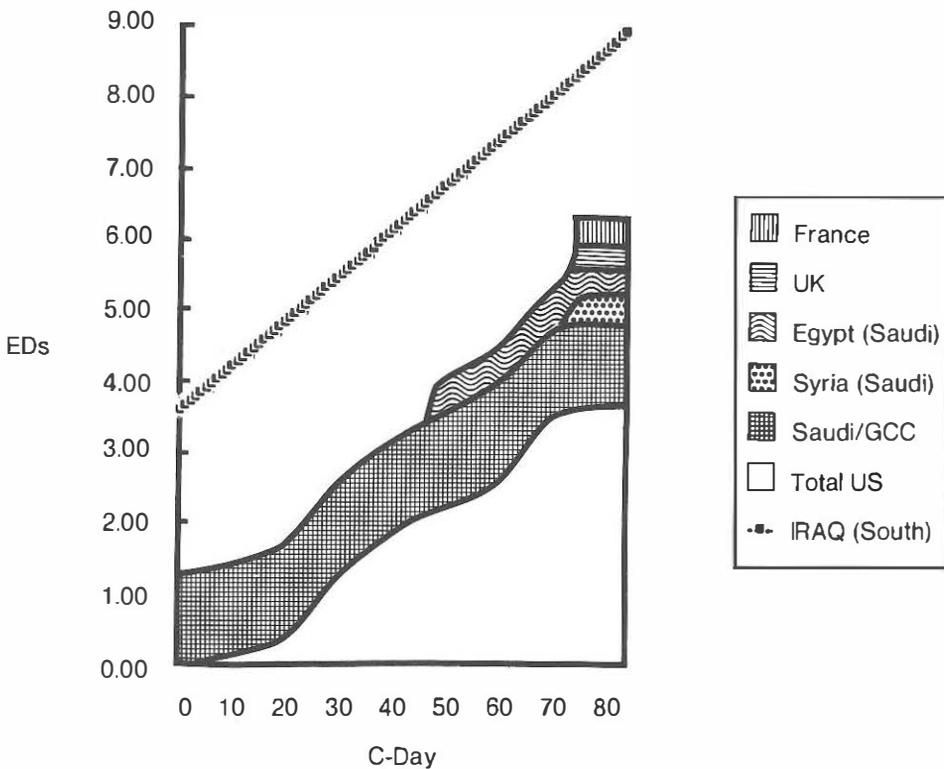


Fig. 3. Comparative Force Buildups (through October 26)

We cannot predict with certainty what might have happened during the first 80 days if Iraq had attacked. However, the Iraqis had a very large force advantage for the first three weeks. After this time, the buildup of allied forces improved the relative force balance in the theater even though the Iraqis increased their own forces during this period. Thus, the allies, although still outnumbered, appeared to be in a strong position after 80 days of force buildup.

IMPLICATIONS FOR CONTINGENCY PLANNING AND FORCE PROJECTION

Operations in the Gulf were, indeed, spectacularly successful. We should learn from this success but not overlearn those lessons. Desert Shield was only one of a wide assortment of possible contingency operations. Other, future contingencies are most likely to be of a very different type. In this last section, we distill some implications for future contingency planning and force projection based on what went right in the Gulf, while recognizing that other circumstances could have stressed U.S. capabilities far more than the Gulf operations.

Future Contingency Planning

The exact circumstances of the Gulf crisis were not anticipated and the strategic warning was short. It is impossible to predict all possible future crises or even the details of the most likely crisis. Furthermore, when crises begin, strategic warning of attack will almost always be ambiguous when hostile military activities are evaluated in the context of larger political developments. These political developments will define the limits of what can be done militarily. In parts of the world where the U.S. has a substantial military presence, this ambiguity can make an appropriate, timely response difficult; in those regions where no such presence or access exists, it can perhaps make such a response impossible.

The likely ambiguity of future circumstances has implications for contingency planning. First, an organization must be in place which is responsible for making general, realistic plans. As described earlier, until USCENTCOM was formed and resourced for contingencies in the region, a response of the type just seen would have been much more ominous. Second, planning must be sufficiently flexible to account for differing threats and to provide military options within a wide range of political constraints. Desert Shield suggests options must be formulated quickly, on short notice, but must be adaptable, especially in the early days of a crisis.

As difficult as it will be to provide appropriate options in future crises, in addition, the planning system must accommodate changes to those options as implementation begins. Projecting forces takes time. The implications of carrying out any given course of action can be enormous and involve the phased assembling of strategic lift and units to be moved. If a preferred course of action changes while a past course of action is being implemented, confusion can occur. Hence, future planning may have to provide a hedge on the selected course of action. That is, not only will the system have to support the implementation of the chosen course of action, it must also anticipate changes in the course of action and make adjustments to minimize the consequent confusion. In practice, this means assembling and projecting more forces than initially seems necessary, subject to economic and political constraints. Time lost through early inaction can never be recovered.

Further planning difficulties arise when decisions have to be made about the sequencing of forces into an area. In Desert Shield, offensive options became viable only after large military forces were accumulated in theater. However, there is no assurance another enemy will allow a future contingency force to assemble with such impunity. Therefore, as units are echeloned into the theater, they must have optimum warfighting capability throughout the various stages of the deployment. But this capability must be created without adversely affecting the closure of the force required to achieve the desired strategic objective. To contingency planners, these are competing goals: the former seeks to optimize the effectiveness of strategic lift for immediate support, i.e., combat entities configured to fight upon arrival; the latter calls for optimum efficiency of the deployment assets as measured by lift managers. The gradation of units and their sustainment during contingency deployments can enable early units to fight upon arrival without serious delays to the closure of the overall force. This suggests it is necessary to balance the conflicting goals of effective and efficient strategic lift.

Another planning problem illustrated by Desert Shield occurred because of the operation's remoteness from American shores. The extended distance had an effect on the ability to move forces, including resupplies, from the continental United States, and also affected the support systems in theater and, hence, the force's combat power. It takes time to establish a support system from scratch. The fundamental choice is whether to support from afar or to move infrastructures to the theater of operations. The decision is made more exacting due to inherent uncertainties prevalent in contingency operations, such as the anticipated length and intensity of hostilities and the availability of host nation support. In Operation Desert Shield, the military opted for moving support and maintenance infrastructures into the theater. Why? The answer might form the basis for determining how to support future contingency operations.

A final implication for planning concerns the requirement for quick response capability. The risks associated with applying military force are least during the onset of the crisis. At that time, the potential adversary will have had the least opportunity to develop his own options and counteroptions. Consequently, the early insertion of military force tends to paralyze the enemy's initiative while restricting or narrowing his options. However, applying the wrong force or applying a force for ill-conceived purposes can lead to military defeat and subsequent political disaster. Similarly, simply getting there to demonstrate national resolve can be equally catastrophic.⁴⁸ In the Gulf, we know the disposition of the allied forces and their capabilities irretrievably conditioned the types of missions they could be expected to execute. This prodigious effort thus highlights another imperative of warfare which is even more acute in contingency operations: One must think through the last step before taking the first. In other words, effective contingency planning requires a clear vision of the end state—ergo Clausewitz' admonition which introduced this paper.

Force Projection

The Gulf crisis illustrated that current U.S. force projection capability is formidable. Nevertheless, this capability does have limitations. One limitation is the time needed to project sizable forces. Operation Desert Shield required nearly three months to assemble four division equivalents in Saudi Arabia (although many transportation assets were used to deploy air and naval forces). An Iraqi attack before this force arrived in theater, perhaps, would have stressed the United States more than the actual Iraqi decision to delay. There are many areas of the world in which in-place, potentially hostile forces could vastly outnumber and outgun American forces in the early stages of their deployment. Future foes may not wait until we have assembled our forces.

There are several approaches to solving this problem. The first, and easiest, is to scale down expectations. Without significant improvements in the strategic mobility triad—airlift, sealift and prepositioned stocks—the United States simply does not have the capability to intervene in many scenarios unless strong and in-place allies can blunt the enemy until U.S. forces arrive. America could adjust her objectives accordingly. Alternatively, the United States could increase its force projection capability. This could be accomplished by acquiring more airlift and sealift, by prepositioning additional materiel in more locations on land and/or sea or by various combinations of the above. Similarly, a major effort could be undertaken to increase significantly the mobility and firepower of existing forces without increasing their deployment profile; or, current systems could be lightened without degrading their lethality, speed, agility and protective qualities.

Most likely, DoD will attempt a combination of the above to meet future U.S. force projection requirements. Such efforts undoubtedly will produce improvements. But they are expensive. Even if substantial resources are obligated, the United States has to come to grips with the limitations on its military power projection. In spite of these constraints, the military must be prepared to respond quickly and coherently when called upon. Accordingly, DoD should codify a menu of military options which take into account limitations in strategic lift.

In addition, the U.S. needs to consider regional alliances as a partial solution to this problem. An ally in place, even without sufficient force to defend itself, perhaps can muster enough resistance to delay the enemy. But, in addition, such allies can provide receiving facilities for U.S. forces. The infrastructure in Saudi Arabia was extensive, with well-developed sea and air ports of debarkation, significant throughput capacity, materiel handling capability, transportation assets, and road and communications networks—all of which proved critical during Operation Desert Shield. Years of patient and concerted effort went into bonding the U.S.-Saudi relationship that, however tenuous, allowed this infrastructure to evolve despite political and cultural sensitivities. But the armed forces of a world superpower cannot depend on such favorable circumstances. How well prepared is the U.S. military to deploy to and fight in more austere environments?

Finally, this operation was conducted with the United States possessing better and more forces and strategic lift than at any time of peace in its history. Currently, the military is undergoing a reduction in forces consistent with a congressional mandate. It is not self-evident that future U.S. forces and strategic lift will be capable again of such an operation to the Middle East or other areas of the world. Obviously, no one knows what future contingencies may require. We must take care, however, not to create a mismatch between available, combat-ready forces and forces required for potential future conflicts.

Like all wars, the crisis in the Gulf was a war of ideas, a war of people and a war of systems. Would sanctions be enough to compel a persistent enemy to surrender? Could air power win by itself? Could AirLand Battle doctrine be executed? Could an improvised military and political coalition be held together, particularly when fighting started and after concessions began to trickle in? Did the American volunteer military force have the grit for battle? Would quality overcome quantity? Had the military squandered trillions of dollars or would state-of-the-art technology prevail? Through the prism of Operations Desert Shield and Desert Storm, historians, military theorists and defense industries are provided a remarkable laboratory for normative research on these and other issues. For our purpose, suffice it to say that the dynamics discussed above affected both the conduct and the outcome of this contingency. If exposed to rigorous study, they may also establish the basis for coherent contingency planning, the right first step in U.S. power projection.

NOTES

1. Karl von Clausewitz, *Vom Kriege* ("On War"), ed. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), p. 584.
2. See, for example, William Kaufmann, *The McNamara Strategy* (New York: Harper & Row, 1964), pp. 51-56 and 191.
3. Rowland Evans and Robert Novak, "The Utgoff Principle," *Washington Post*, April 17, 1978: A21.
4. See, for example, United States House of Representatives, 91st Congress, 1st Session, House Report 522, September 26, 1969; and Congressional Budget Office, *U.S. Projection Forces: Requirements, Scenarios, and Options*, April 1978, p. 2.
5. Presidential Review Memorandum #10 described U.S. force commitments worldwide and became the foundation for Presidential Directive 18 authorizing RDF planning. A study by Samuel P. Huntington is credited by some for stimulating interest in the RDF (Richard Burt, "How U.S. Strategy Toward Persian Gulf Region Evolved," *New York Times*, January 25, 1980: A6).
6. *U.S. News and World Report*, February 27, 1978, p. 24; Austin and Garrett, "Quick Strike," *Inquiry*, as reproduced in *DOD Current News*, Main Ed., Part II, July 24, 1978, p. I-F.
7. U.S. Department of Defense, *Annual Report Fiscal Year 1980*, Report of Secretary of Defense Harold Brown to Congress on the FY 1980 Budget, FY 1981 Authorization Request and FY 1980-1984 Defense Programs, January 25, 1979, pp. 14 and 202.
8. See, for example, James B. Agnew, "Unilateral Corps: Is the U.S. Turning a New Strategic Corner?" *Army*, September 1979, pp. 30-3; and George C. Wilson and Jim Hoagland, "Army Is Drafting Plans for Quick Strike Force," *Washington Post*, June 22, 1979:A2.
9. The Nixon Doctrine, also known as the "Guam Doctrine," eschewed the involvement of U.S. armed forces in Third World imbroglios; weapons and military aid were sanctioned, but the host nation would have to provide its own fighting manpower. It served as the pillar for military strategy until the late 1970s.
10. Benjamin F. Schemmer, "An exclusive AFJ interview with LTG Robert C. Kingston," *AFJ International*, July 1984, pp. 67-73. The Joint Chiefs of Staff reportedly reached a "gentlemen's agreement" whereby Marine and Army generals would alternate command of the RDJTF. Kingston, an Army general, succeeded Kelley (*Washington Post*, June 3, 1981:A1).

11. General Robert C. Kingston, "U.S. Central Command: Refocusing the Lens of Stability on a Region in Crisis," *Defense*, November/December 1984, pp. 29-34. Conspicuously absent from USCENTCOM's area of responsibility are Israel, Lebanon and Syria. This manifestation of military policy is not surprising since the United States clearly has conflicting interests in the region.

12. There are a number of conflicting data on the initial force list for the RDF. These were derived from the Congress of the United States, Congressional Budget Office, *Rapid Deployment Forces: Policy and Budgetary Implications*, (Washington, D.C.: CBO, February 1983).

13. See, for example, Jeffrey Record, "The Rapid Deployment Force: U.S. Power Projection and the Persian Gulf," in *Projection of Power, Perspectives, Perceptions, and Problems*, Ra'anana, Pfaltzgraff and Kemp eds., (Hamden, Conn.: Archon Books, 1982), pp. 107-19.

14. See, for example, Francis J. West, Jr., Assistant Secretary of Defense for International Security Affairs on S. 2248, *Sea Power and Force Projection*, testimony before the Senate Committee on Armed Services, 97:2 (March 12, 1982), part 6, p. 3723.

15. CBO, *Rapid Deployment Forces: Policy and Budgetary Implications*, pp. 13-5.

16. Schemmer, "An Exclusive Interview."

17. Inferred from Secretary of Defense Dick Cheney's remarks to the International Institute for Strategic Studies, The Homestead, Hot Springs, Va., September 6, 1990.

18. Contingency operations involve the use of U.S. military forces in response to the occurrence of a crisis, in order to achieve U.S. objectives or to protect U.S. enduring interests (this is the first official definition provided by the proponent agency, Office of the Chief of Naval Operations, Joint Doctrine Branch, OP-607, in the Navy's *Joint Doctrine Development and Review Newsletter*, Summer 1990, p. 2); campaigns are series of military operations aimed at accomplishing strategic or operational objectives (Joint Pub 0-1, p. II-16).

19. See, for example, Rowland Evans and Robert Novak, "Nunn vs. Bush," *Washington Post*, November 21, 1991: A19.

20. The Senate voted 52-47 and the House 250-183, both in favor of the resolution to grant the president the authority to use force. See, for example, *New York Times*, "Confrontation in the Gulf", January 13, 1991: A1.

21. Data on the deployments to Southwest Asia were aggregated from various sources. These included: *Public Affairs Communicator*, Vol. 2, No. 5, October 1990: 24; "Airman Express," *Airman*, Vol. 36, No. 9, September 1990: 10-11; Maj. Bruce Babb, "Desert

Shield: Experiences on the MAC Crisis Action Team," *Airlift*, Vol. 13, No. 4, Winter 1990-91: 1-3; L. Edgar Prima, "Two If By Sea ... Are We Ready?" *Army*, Vol. 40, No. 12, December 1990: 12-21; James Kitfield, "DashtotheDesert," *Government Executive*, Vol. 22, No. 11, November 1990: 12-32; James Ott, "Desert Shield Deployment Tests CRAF's Viability," *Aviation Week & Space Technology*, Vol. 133, No. 24, December 10, 1990: 31-2; Vice Admirals Francis R. Donovan, Commander, Military Sealift Command, and Paul D. Butcher, Deputy Commander-in-Chief, U.S. Transportation Command, Statements for the Record before the House Merchant Marine and Fisheries Committee, Subcommittee on Merchant Marine's "Oversight Hearing on Sealift Requirements for the Persian Gulf Crisis," September 18, 1990; CRS Report for Congress, *Sealift and Operation Desert Shield*, (Washington, D.C.: The Library of Congress, September 17, 1990); *Navy Talking Points*, (Washington, D.C.: Office of Information, Department of the Navy, August 23, 1990); and Rep. Les Aspin, White Paper, Subj: "The Military Option: The Conduct and Consequences of War in the Persian Gulf," January 8, 1991.

22. For the president's strategic vision, see George Bush, "Remarks by the President at the Address to the Aspen Institute Symposium," (Washington, D.C.: The White House, Office of the Press Secretary, August 2, 1990). Secretary Cheney's remarks were to the International Institute for Strategic Studies, The Homestead, Hot Springs, Va., on September 6, 1990.

23. See Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War: The Iran-Iraq War*, Vol. 2, (Boulder, Co.: Westview Press, 1990); and Dr. Stephen Pelletiere, LTC Douglas Johnson II and Dr. Leif Rosenberger, *Iraqi Power and U.S. Security in the Middle East* (Carlisle Barracks, Penn.: U.S. Army War College Strategic Studies Institute, 1990).

24. Yemen did not participate. See, for example, *Survival*, Vol. 32, No. 6, pp. 558-9.

25. Cuba and Yemen abstained. Resolution 665 on August 25, 1990, actually implemented the embargo (Cuba and Yemen abstained); and Resolution 670 on September 25, 1990, clarified that the embargo applied to all means of transport, including aircraft (Cuba voted against). *Survival*, 32:6.

26. President Bush's press conference on August 8, 1990, and Cheney, remarks to IISS.

27. Both the phases and their implicit scope were inferred from a statement by General Colin L. Powell, chairman of the Joint Chiefs of Staff, to the Senate Armed Services Committee on September 11, 1990. See "Military Posture: Desert Shield Military Operations," *Defense Issues*, Vol. 5, No. 39, October 16, 1990.

28. Cheney, remarks to IISS.

29. The 13 maritime prepositioning ships (MPS) are organized into three squadrons.

Each squadron is associated with and carries the equipment and supplies for the 1st, 6th and 7th MEBs. The concept calls for marines to be flown to the region where they "marry up" with their equipment and supplies. Data were derived from various sources (see note 21).

30. *Public Affairs Communicator*, 2:5, October 1990 and *Airman*, 36:9, September 1990.

31. *Navy Talking Points*.

32. Donovan, "Oversight Hearing on Sealift Requirements."

33. The eight fast sealift ships (FSS) are converted roll-on/roll-off ships that cruise at twice the speed of other cargo ships. They can carry over 90 percent of a mechanized or armored division. The 12 afloat prepositioned ships (APS) are prepositioned mostly at Diego Garcia alongside the five ships of MPS 2. They contain equipment and petroleum products for the Army and Air Force and a deployable Navy fleet hospital. See, for example, CRS Report for Congress, *Sealift*.

34. Donovan, "Oversight Hearing on Sealift Requirements."

35. Molly Moore, "Buildup in Gulf Reported to Lag," *Washington Post*, September 13, 1990: A1, A34.

36. USNS *Antares* (T-AKR-294), in the Eastern Atlantic, was towed to Rota, Spain. Her cargo was off-loaded to USNS *Altair* (T-AKR-291) to continue the trip to Saudi Arabia. As of November 20, 1990, *Antares* was still at Rota, having both boilers retubed. ("Desert Shield: The Forces," *Proceedings*, Vol. 117, 1, 1,055, January 1991: 84; and CRS Report for Congress, *Sealift*.)

37. Donovan, "Oversight Hearing on Sealift Requirements," and "Navy Talking Points."

38. *Navy Talking Points*.

39. The 13th MEU is assigned to U.S. Special Operations Command. Data were gathered from CRS Report for Congress, *Sealift*, and *Public Affairs Communicator*, 2:5.

40. Three combat reserve units were alerted on November 8 for possible deployment: the 48th Infantry Brigade (Mechanized), the 155th Armored Brigade and the 256th Infantry Brigade (Mechanized). ("Desert Shield: The Forces," and Powell, "Military Posture.")

41. Forty-one RRF ships were originally requested, one canceled. The 35 foreign-flag ships were chartered from Norway, Saudi Arabia, Cyprus, Italy, Great Britain, The Netherlands, Panama, Bahamas, Antigua, Greece and Denmark. Kuwait provided two breakbulk ships and Korea one, at no cost. According to the Deputy Commander, U.S.

Transportation Command, he did not have to call on any ships from the National Defense Reserve Fleet, requisition ships from the civil fleet via presidential authority, or implement the Sealift Readiness Program because most of the vessels with the greatest military utility under those programs had already been voluntarily contracted. (Donovan, "Oversight Hearing on Sealift Requirements.")

42. Failure to consider the impact of logistics on operations — as in Operation URGENT FURY (Grenada, 1983), for example — has been a favorite entreaty of military critics.

43. Data on forces were derived from Aspin, "The Military Option."

44. About 80 percent of the division's third brigade task force, including all its battalions, closed by August 28.

45. These are the actual arrival times into the ports. Additional time was required to unload the ships, assemble the units and equipment, and displace to assigned locations.

46. See, for example, "New Iraqi Troops Arrive at Saudi Border," *Los Angeles Times*, December 16, 1990, A7; "Iraq Bolsters Its Defenses, Pentagon Says," *Los Angeles Times*, December 19, 1990, A14; and "U.S. and Iraqi Forces in the Region," *Washington Post*, December 8, 1990, A1.

47. See, for example, "Cheney's New Numbers," *The Economist*, November 3, 1990, p.4 and Michael R. Gordon, "Reversal of Forces in Gulf: Iraqis Now Set for Defense," *New York Times*, November 4, 1990, p.1.

48. One need look no further back than October 23, 1983, for an example. A lone terrorist penetrated the Marine compound in Beirut and detonated explosives which killed 241 servicemen. The painful memory of that act has been etched indelibly in our minds. Lost in the rhetoric which ensued, however, is the proposition that the disaster might have been avoided had the Marines been sent into Lebanon with a clear objective.