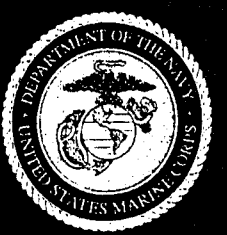
Joint Pub 1



Joint Warfare of the Armed Forces of the United States

10 January 1995

DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

This, the second edition of Joint Pub 1, "Joint Warfare of the Armed Forces of the United States," represents a major milestone in our efforts to improve joint doctrine and exemplifies the evolutionary nature of joint doctrine.

Since its release 3 years ago, the concepts and principles found in Joint Pub 1 have been implemented and validated during major operations and deployments in Somalia, Rwanda, Haiti, and Kuwait each skillfully executed by the Armed Forces of our great Nation. The enduring theme – **joint warfare is team warfare** – remains at the heart of this capstone publication; that will not change. This latest edition though, reflects our commitment to regularly revise and refine our joint publications to ensure consistency, applicability, and readability.

This doctrine establishes the foundation of our ability to fight as a joint team, but now the truly hard part begins – putting this doctrine to use throughout our Armed Forces. So I ask that you read this edition of Joint Pub 1, and reflect upon what it says about joint warfare and, in particular, what it says about **attitude**. Then use these concepts as a basis for discussion and debate within your organization, and ensure it is universally understood and practiced.

To that end, all commanders must understand, teach, and apply joint doctrine as they prepare and train the men and women who wear America's uniform to fight our Nations's wars. Accordingly, please ensure the widest distribution of this and other joint publications, and promote their use at every opportunity.

JOHN M. SHALIKASHVILI
Chairman
of the Joint Chiefs of Staff

PREFACE

Joint Pub 1 guides the joint action of the Armed Forces of the United States, presenting concepts molding those Armed Forces into the most effective joint fighting force. These concepts are broad and require a leader's judgment in application. Since the American military has often fought as part of alliances and coalitions, this publication guides our multinational endeavors as well.

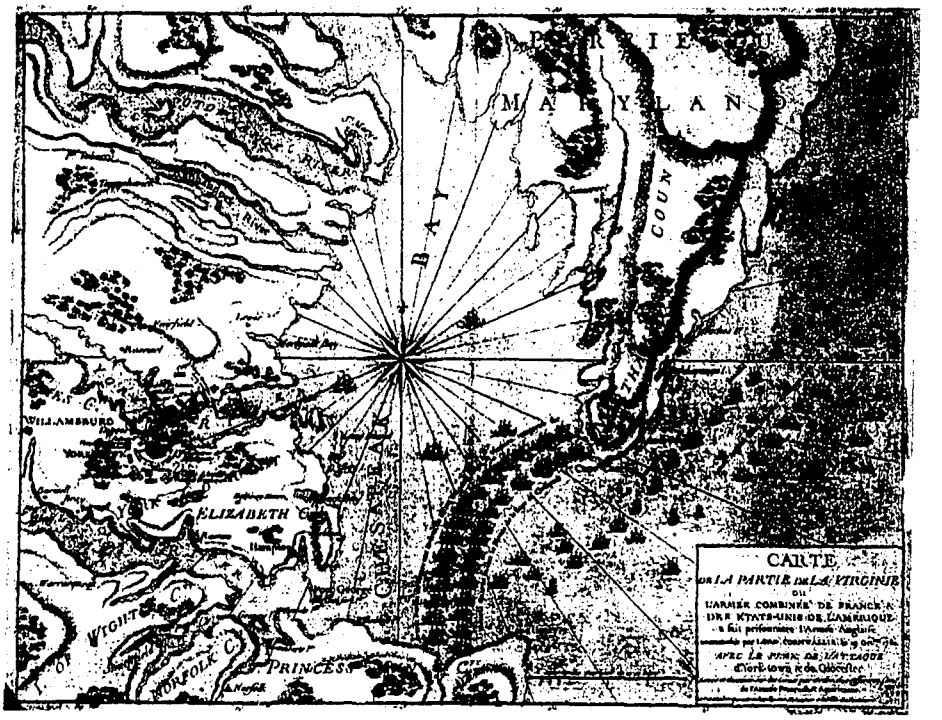
The nature of modern warfare demands that we fight as a team. This does not mean that all forces will be equally represented in each operation. Joint force commanders choose the capabilities they need from the air, land, sea, space, and special operations forces at their disposal. The resulting team provides joint force commanders the ability to apply overwhelming force from different dimensions and directions to shock, disrupt, and defeat opponents. Effectively integrated joint forces expose no weak points or seams to enemy action, while they rapidly and efficiently find and attack enemy weak points. **Joint warfare is team warfare.**

Accordingly, this publication is written to help ensure members of the Armed Forces of the United States fight successfully together. The joint team of the Armed Forces of the United States comprises the members of each Service, active and reserve, and our supporting civilians. Although the Services organize, train, equip, and sustain forces, these forces are employed under joint force commanders. To help achieve our fullest combat potential, all American military leaders must integrate the concepts and values presented in this publication into the operations of the Armed Forces of the United States.

Service skills form the very core of our combat capability. Joint warfare does not lessen Service traditions, cohesion, or expertise. Successful joint operations are impossible without the capabilities developed and embodied in each Service; Service "cultures," heroes, and professional standards are indispensable.

We must expand our tradition of joint victories, building on our extensive history of joint and multinational operations from as long ago as the Revolutionary War. This publication provides examples of American military leaders who used joint solutions, often despite contemporary impediments to joint action. Over time, the American experience in war increasingly demanded joint action. Today, we are making joint action practiced and routine. Whether we have years to plan and rehearse, as in the case of the Normandy invasion, months as in Operation DESERT STORM, or only a few days as in Operation URGENT FURY, the Armed Forces of the United States must always be ready to operate in smoothly functioning joint teams.

This publication describes how we build such teams. Chapter I discusses why we fight, the nature of modern war, and the consequent impact on joint action. Chapter II develops basic military values as they apply to joint teamwork. Chapter III presents the fundamentals of joint warfare. Chapter IV discusses the unifying focus for US military operations, the joint campaign. The publication concludes with an example of a campaign that illustrates these themes.



French engraving from 1781 showing the decisive joint and coalition campaign of Yorktown.

TABLE OF CONTENTS

Intentionally Blank

EXECUTIVE SUMMARY
COMMANDER'S OVERVIEW

- **Guides the Joint Action of the Armed Forces of the United States**
- **Discusses the Nature of American Military Power**
- **Addresses Values in Joint Warfare**
- **Analyzes the Fundamentals of Joint Warfare**
- **Describes the Joint Campaign**

American Military Power

Deterrence is the first line of our national security. If deterrence fails, our objective is winning the nation's wars.

By demonstrating national resolve and maintaining the ability to deal successfully with threats to the national interests, we deter those who would use military power against us. Readiness and military professionalism lessen the risk of our having to fight at all. When we fight, we fight to win.

In military operations other than war, our purpose is to promote national security and protect our national interests.

We also have a long history of military support for national goals short of war, ranging from general military service to the nation (such as surveying railroads and waterways in the 19th century) to a wide range of actions abroad in support of foreign policy. In all military operations other than war, our purpose again is to promote national security and protect our national interests.

The Nature of Modern Warfare

The nature of warfare in the modern era is synonymous with joint warfare.

Members of the Armed Forces of the United States should understand the nature of warfare, both through solid grounding in the tested insights of the finest theorists, historians, and practitioners of war, and by carefully keeping those insights up to date.

Projection of power is essential and is inherently a joint undertaking.

The Armed Forces of the United States face the challenge of **mastering multifaceted conditions**, unlike nations whose military forces can concentrate on a more limited range of environments. The ability to project and sustain

the entire range of military power over vast distances is a basic requirement for the Armed Forces of the United States and contributes, day in and day out, to the maintenance of stability and deterrence worldwide. This projection of power is inherently a joint undertaking, because of the inter-Service linkages of modern command, control, and communications, the multi-Service structure of the defense transportation system, and the broad range of forces typically involved.

The rapid evolution of technology has altered warfare.

Forces on land, at sea, and in the air now reinforce and complement each other more than ever. The **speed of communications and pace of events** in the modern world have accelerated. Joint teams must be trained and ready prior to conflict. The demands of fighting both as an industrial and postindustrial power place a premium on **well-educated, professional men and women** who have mastered the tools of modern warfare while maintaining the traditional fighting spirit of the Armed Forces of the United States. **Reserve components** play essential roles in assuring that a balanced array of skills is available as needed. All our Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen must be adept at **working with others,** both as fellow members of the Armed Forces of the United States and with allies and other foreign partners.

The Role of Doctrine

Joint doctrine offers a common perspective from which to plan and operate, and fundamentally shapes the way we think about and train for war.

Military doctrine presents **fundamental principles** that guide the employment of forces. Doctrine is authoritative. It provides the distilled insights and wisdom gained from our collective experience with warfare. Doctrine facilitates clear thinking and assists a commander in determining the proper course of action under the circumstances prevailing at the time of decision. Though neither policy nor strategy, joint doctrine deals with the fundamental issue of **how best to employ the national military power to achieve strategic ends.**

Values in Joint Warfare

Say what we mean and do what we say.

First and always is **integrity.** In the case of joint action, as within a Service, integrity is the cornerstone for building trust. We know as members of the Armed Forces that whatever the issue at hand, we can count on each other to say what we mean and do what we say.

Competence is at the center of our relationship with the American people.

Competence cements the mutual cohesion between leader and follower.

Individual fighting spirit and physical courage remain the inspiration for battle teamwork.

Since warfare began, **physical courage** has defined warriors. The United States of America is blessed with Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen whose courage knows no boundaries. Even in warfare featuring advanced technology, individual fighting spirit and courage remain the inspiration for battle teamwork.

Moral courage is the willingness to stand up for what we believe is right.

Moral courage is also essential in military operations. This includes the willingness to stand up for what we believe is right even if that stand is unpopular or contrary to conventional wisdom. Other aspects of moral courage involve **risk taking** and **tenacity**: making bold decisions in the face of uncertainty, accepting full responsibility for the outcome, and holding to the chosen course despite challenges or difficulties.

The Armed Forces of the United States are a team. Several elements support effective teamwork:

Teamwork is the cooperative effort by the members of a group to achieve common goals. The Armed Forces of the United States are a team. Deterring aggression and, if need be, winning our wars are the team's common goals.

Trust and Confidence

Trust and Confidence. Trust—defined as total confidence in the integrity, ability, and good character of another—is one of the most important ingredients in building strong teams.

Delegation

Delegation. The delegation of authority commensurate with responsibility is a necessary part of building trust and teamwork. Oversupervision disrupts teamwork.

Cooperation

Cooperation. This aspect of teamwork can be at tension with competition. Both are central human characteristics, but the nature of modern warfare puts a premium on cooperation with each other to compete with the enemy.

Fundamentals of Joint Warfare

The principles of war currently adopted by the Armed Forces of the United States are:

Objective
Offensive
Mass

The principles of war represent the best efforts of military thinkers to identify those aspects of warfare that are universally true and relevant. These principles deserve careful study by all who practice the military art, because the insights suggested by their analysis span the entire range of military operations. In some cases, several principles are involved in the particular application concerned. In all cases, the principles are applied broadly, avoiding literal or

Economy of force
Maneuver
Unity of command
Security
Surprise
Simplicity

dogmatic construction, and with due regard for the unique characteristics of joint warfare.

By applying the principles of war in the specific context of joint warfare, we can derive fundamentals of joint warfare.

Exercise of Command

American military power is employed under joint force commanders using a flexible range of command relationships. Indispensable elements of effective command are:

The primary emphasis in command relations should be to keep **the chain of command short and simple** so that it is clear who is in charge of what. The importance of an efficient joint force command structure cannot be overstated. Command, control, and communications systems should be reliable, survivable, flexible, interoperable, timely, and secure.

Liaison

Experience shows **liaison** is a particularly important part of command, control, and communications in a joint force. Recalling Clausewitz' analogy of a military force as an intricate machine, ample liaison parties, properly manned and equipped, may be viewed as a lubricant that helps keep that machine working smoothly.

Role of component commanders

The role of **component commanders** in a joint force merits special attention. Component commanders are first expected to orchestrate the activity of their own forces, branches, and warfare communities. In addition, they must understand how their own pieces fit into the overall design and best support the joint force commander's plans and goals.

Training and education

The role of **training and education** is indispensable to effective command. We fight as we train and exercise. The skills of our leaders rest in large part on the quality of their military training and education.

Command and control warfare

Joint forces should be prepared to **degrade or destroy the enemy's command capability** early in the action. The interaction of air, land, sea, special operations, and space capabilities offers the joint force commander a powerful array of command, control, and communications countermeasures that can dramatically increase shock effect, disorientation, and operational paralysis caused by the joint force's operations against the enemy. By blinding the enemy and severing enemy command links, the joint force can drastically reduce an opponent's effectiveness.

National-Level Considerations

Unity of effort is a cooperative effort.

When the United States undertakes military operations, the Armed Forces of the United States are only one component of a **national-level effort** involving the various instruments of national power: economic, diplomatic, informational, and military. Instilling unity of effort at the national level is necessarily a cooperative endeavor involving a variety of Federal departments and agencies.

The Armed Forces of the United States are accountable to the American people.

We in the Armed Forces of the United States must **account for our actions** with the American people whom we serve by dealing openly and well with the representatives of the nation's free press. We are also responsible for protecting classified information related to the national security and will be challenged by the news media concerning such information.

Multinational Endeavors

Unity of effort in multinational operations is gained through:

There is a high probability that any military operation we undertake will have multinational aspects.

Partnership and respect

We should always operate from a basis of **partnership and mutual respect**. This is similar to the relationship that prevails among the Armed Forces of the United States, but the situation is more complex because the nature and composition of multinational partnerships may vary greatly from case to case.

Simplicity and clarity of plan and statement

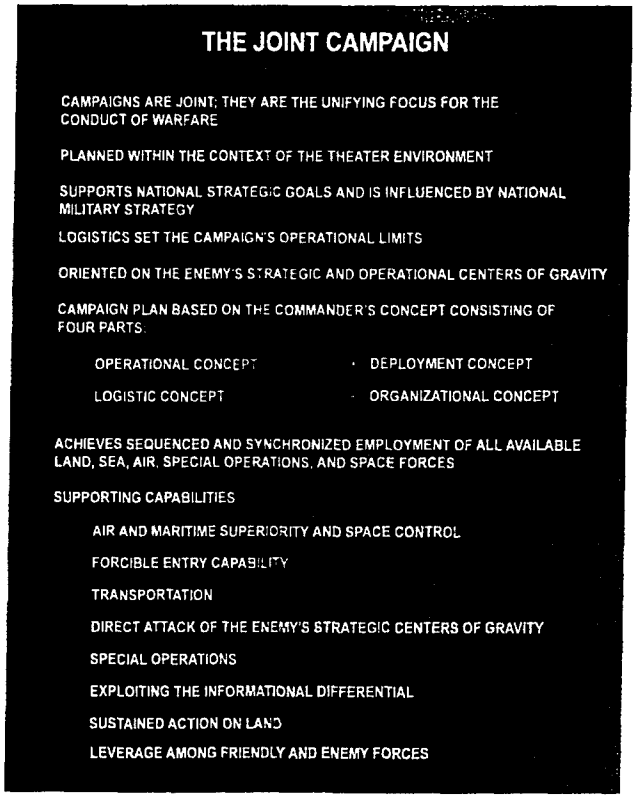
Experience shows that **simplicity and clarity of plan and statement** are even more necessary in the combined and coalition environment than in US-only operations. To successfully project American military power, assistance with deployment, arrival, and en route support are critical requirements from our allies and friends.

Teamwork

In all multinational endeavors, **the teamwork of the Armed Forces of the United States should set a strong example.** Working together is more difficult in the international arena: operating from a smoothly coordinated, highly cooperative joint force perspective makes relations more productive and beneficial.

The Joint Campaign

Campaigns represent the art of linking battles and engagements in an operational design to accomplish strategic objectives.



The key to the most productive integration of these supporting capabilities, and to the joint campaign as a whole, is **attitude**. In years past, the sea was a barrier to the Soldier and a highway to the Sailor; the different mediums of air, land, sea, and space were alien to one another. To the joint force team, **all forms of combat power present advantages for exploitation.**

CHAPTER I
AMERICAN MILITARY POWER

PURPOSE OF OUR SERVICE

The Armed Forces of the United States hold in trust for the people of the United States of America military power greater than any in history. This responsibility reinforces in every member of the Armed Forces the need to understand the purpose of our collective Service.

The preamble to the Constitution puts that purpose plainly: "...to provide for the common defense...." Defense of our nation and its interests defines our reason for being.

Defense of the national security rests first on the concept of **deterrence.** By demonstrating national resolve and maintaining the ability to deal successfully with threats to the national interests, we deter those who would use military power against us. Readiness and military professionalism lessen the risk of our having to fight at all. If deterrence fails, then our single objective is **winning the nation's wars.** When we fight, we fight to win.

We also have a long history of **military support for national goals short of war,** ranging from general military service to the nation (such as surveying railroads and waterways in the 19th century) to a wide range of actions abroad in support of foreign policy. In all military operations other than war, our purpose again is to promote the national security and protect our national interests.

An important implication of the basic purpose for our military service is that we **focus on common action to achieve common goals.** Defense of our nation is the fundamental basis for military service and joint warfare is indispensable to that defense. The reason for our existence demands unity in our efforts.

THE NATURE OF MODERN WARFARE

Members of the Armed Forces of the United States should understand the nature of warfare, both through solid grounding in the tested insights of the finest theorists, historians, and practitioners of war, and by carefully keeping those insights up to date. As we consider the nature of warfare in the modern era, we find that it is synonymous with joint warfare. The following characteristics are particularly important in defining the essence of contemporary military operations.

The Armed Forces of the United States face the most challenging **environment** of any military power. As Napoleon observed, "The policy of a state lies in its geography."[1] The strategic context confronting the United States is unique, and our friends, allies, and interests are worldwide. Accordingly, the arena of our potential operations is the entire planet with its surrounding aerospace, from the ocean depths to geosynchronous orbit and beyond. We must be prepared to defend our national interests in every type of terrain and state of sea and air, from jungles, deserts, and tropical seas to polar ice caps. The Armed Forces of the United States face the challenge of mastering multifaceted conditions, unlike nations whose military forces can concentrate on a more limited range of environments. Indeed, the ability to project and sustain the entire range of military power over vast distances is a basic requirement for the Armed Forces of the United States and contributes, day in and day out, to the

maintenance of stability and deterrence worldwide. This projection of power is inherently a joint undertaking, because of the inter-Service linkages of modern command, control, and communications, the multi-Service structure of the defense transportation system, and the broad range of forces typically involved.

Second, the rapid evolution of **technology** in the postindustrial era (with its dramatic advances in information processing, advanced materials, robotics, and precision munitions) has altered warfare. Forces on land, at sea, and in the air now reinforce and complement each other more than ever before: in range of lethal striking power, common logistic and communications capabilities, and many other areas. Overhead, space-based capabilities affect all terrestrial forces, with a potential we have only begun to grasp.

Third, **the speed of communications and pace of events** in the modern world have accelerated. Crises may unfold rapidly, and critical engagements may occur with little time to prepare. Moreover, the political environment itself is not only faster-paced but more complex. Terrorism, drug trafficking, and proliferation of weapons of mass destruction illustrate the range of threats that can complicate the defense of our national security, hastening the tempo or altering the stakes of crises or conflicts. The widespread distribution of advanced weapons and technology adds further complexity to US planning. These factors affect our peacetime posture and training and the composition of our leading edge forces: joint teams must be trained and ready prior to conflict.

Considerations having to do with **people** (the most important and constant element in warfare) are influenced by the changing environment. The demands of fighting both as an industrial and postindustrial power place a premium on well-educated, professional men and women who have mastered the tools of modern warfare while maintaining the traditional fighting spirit of the Armed Forces of the United States. Our military must be skilled in the use of bytes and bayonets alike. Together with our active forces, Reserve components play essential roles in assuring that a balanced array of skills is available as needed. Finally, all our people must be adept at working with others, both as fellow members of the Armed Forces of the United States and with allies and other foreign partners.

"The conduct of war resembles the working of an intricate machine with tremendous friction, so that combinations which are easily planned on paper can be executed only with great effort. Consequently, the commander's free will and intelligence find themselves hampered at every turn, and remarkable strength of mind and spirit are needed to overcome this resistance."[2]

Carl von Clausewitz

Finally, **friction, chance, and uncertainty** still characterize battle. Their cumulative effect comprises "the fog of war." We have, for instance, no precisely defined picture of where, when, for how long, or why we may be obliged to use force in the defense of our nation or its friends and allies. We must be prepared for a broad range of possibilities. Modern technology will not eliminate friction, chance, or uncertainty from military undertakings. Indeed, the massive quantity of information available to modern commanders produces its own

component of uncertainty. Instead, friction, chance, and uncertainty are an inevitable part of the medium in which we operate. We should prepare mentally, physically, and psychologically to deal with this.

External friction (caused by factors outside our control, such as weather or the enemy) is essentially inescapable, though we can sometimes mitigate its effects. Internal "friction" caused by excessive rivalries may also confront military forces from time to time. The desire to excel and the competition of differing points of views are indispensable to healthy military organizations. However, there is no place for rivalry that seeks to undercut or denigrate fellow members of the joint team: we must harness all our energies for dealing with our enemies. As we will discuss in the remaining chapters, effective teamwork among the Armed Forces of the United States helps reduce and cope with the various frictions associated with military endeavors.

THE ROLE OF DOCTRINE

"At the very heart of war lies doctrine. It represents the central beliefs for waging war in order to achieve victory....It is the building material for strategy. It is fundamental to sound judgment."[3]

General Curtis E. LeMay, USAF

"Doctrine provides a military organization with a common philosophy, a common language, a common purpose, and a unity of effort."[4]

General George H. Decker, USA

"Doctrine [is] every action that contributes to unity of purpose... it is what warriors believe in and act on."[5]

Captain Wayne P. Hughes, Jr., USN
Fleet Tactics

"Doctrine establishes a particular way of thinking about war and a way of fighting...doctrine provides the basis for harmonious actions and mutual understanding."[6]

Fleet Marine Force Manual 1,
Warfighting

Military leaders understand the nature and utility of doctrine. Military doctrine presents fundamental principles that guide the employment of forces. It provides the distilled insights and wisdom gained from our collective experience with warfare. However, doctrine cannot replace clear thinking or alter a commander's obligation to determine the proper course of action under the circumstances prevailing at the time of decision.

Though neither policy nor strategy, joint doctrine deals with the fundamental issue of how best to employ the national military power to achieve strategic ends. As such, it represents authoritative guidance for the joint employment of the Armed Forces. A large body of joint doctrine (and its supporting tactics, techniques, and procedures) has been and is being developed by the Armed Forces of the United States through the combined effort of the Joint Staff, Services, and combatant commands. (Joint Pub 1-01, "Joint Publication System," governs the development of joint doctrine, tactics, techniques, and procedures and includes an index of all joint publications.

Per the 1986 Department of Defense Reorganization Act, the term "combatant commands" includes both the unified and specified commands.) Because we operate and fight jointly, we must all learn and practice joint doctrine, tactics, techniques, and procedures; feed back to the doctrine process the lessons learned in training, exercises, and operations; and ensure Service doctrine and procedures are consistent. This is critical for our present and future effectiveness. Joint doctrine offers a common perspective from which to plan and operate, and fundamentally shapes the way we think about and train for war.

CHAPTER II
VALUES IN JOINT WARFARE

Our military service is based on values—those standards that American military experience has proven to be the bedrock of combat success. These values are common to all the Services and represent the essence of our professionalism. This chapter discusses those values that have a special impact on joint matters.

First and always is **integrity**. In the case of joint action, as within a Service, integrity is the cornerstone for building trust. We know as members of the Armed Forces that whatever the issue at hand, we can count on each other to say what we mean and do what we say. This allows us to rely with confidence on others to carry out assigned tasks. This is an enormous advantage for building effective teams.

Competence is at the center of our relationship with the American people and cements the mutual cohesion between leader and follower. Our fellow citizens expect that we are competent in every aspect of warfare; those we lead into battle deserve no less. Each of the Services has organized, trained, and equipped superbly competent forces whose ability to fight with devastating effectiveness in the air, on land, and at sea is the foundation on which successful joint action rests.

For the dedicated professional, building Service competence is an intense, lifelong affair. In addition, many serve in assignments requiring an additional competency in joint skills; and all members of the Armed Forces must understand their fellow Services to the extent required for effective operations. Moreover, those who will lead joint forces must develop skill in orchestrating air, land, sea, space, and special operations forces into smoothly functioning joint teams.

Joint Warfare is Team Warfare

"When a team takes to the field, individual specialists come together to achieve a team win. All players try to do their very best because every other player, the team, and the home town are counting on them to win.

So it is when the Armed Forces of the United States go to war. We must win every time.

Every soldier must take the battlefield believing his or her unit is the best in the world.

Every pilot must take off believing there is no one better in the sky.

Every sailor standing watch must believe there is no better ship at sea.

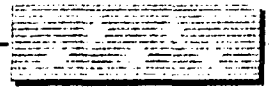
Every Marine must hit the beach believing that there are no better infantrymen in the world.

But they all must also believe that they are part of a team, a joint team, that fights together to win.

This is our history, this is our tradition, this is our future."[7]

General Colin L. Powell

Since warfare began, **physical courage** has defined warriors. The United States of America is blessed with its Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen, whose courage knows no boundaries. This publication recounts examples of splendid acts of heroism. Even in warfare featuring advanced technology, individual fighting spirit and courage remain the inspiration for battle teamwork.



THE MEDAL OF HONOR
IS AWARDED TO
SIGNALMAN FIRST CLASS
DOUGLAS ALBERT MUNRO
UNITED STATES COAST GUARD

As Petty Officer in Charge of a group of 24 Higgins boats, engaged in the evacuation of a battalion of Marines trapped by enemy Japanese forces at Point Cruz, Guadalcanal, on 27 September 1942. After making preliminary plans for the evacuation of nearly 500 beleaguered Marines, Munro, under constant strafing by enemy machine guns on the island, and at great risk of his life, daringly led five of his small craft toward the shore. As he closed the beach, he signalled the others to land, and then in order to draw the enemy's fire and protect the heavily loaded boats, he valiantly placed his craft with its two small guns as a shield between the beachhead and the Japanese. When the perilous task of evacuation was nearly completed, Munro was instantly killed by enemy fire, but his crew, two of whom were wounded, carried on until the last boat had loaded and cleared the beach.

Moral courage is also essential in military operations. This includes the willingness to stand up for what we believe is right even if that stand is unpopular or contrary to conventional wisdom. Other aspects of moral courage involve **risk taking** and **tenacity:** making bold decisions in the face of uncertainty, accepting full responsibility for the outcome, and holding to the chosen course despite challenges or difficulties. The account of riverine operations in the American Civil War below illustrates the role these traits can play in combat.

We also must have the courage to wield military power in an unimpeachable moral fashion. We respect human rights. We observe the Geneva Conventions not only as a matter of legality but from conscience. This behavior is integral to our status as American fighting men and women. Acting with conscience reinforces the links among the Services and between the Armed Forces of the United States and the American people, and these linkages are basic sources of our strength.

RIVERINE OPERATIONS IN THE AMERICAN CIVIL WAR

Union land and naval forces operated effectively together at times in the American Civil War, despite obstacles to joint operations. For example, Alfred Thayer Mahan characterized joint command and control doctrine of that era as "...the established rule by which, when military and naval forces are acting together, the commander of each branch decides what he can or cannot do, and is not under the control of the other, whatever the relative rank."[8]

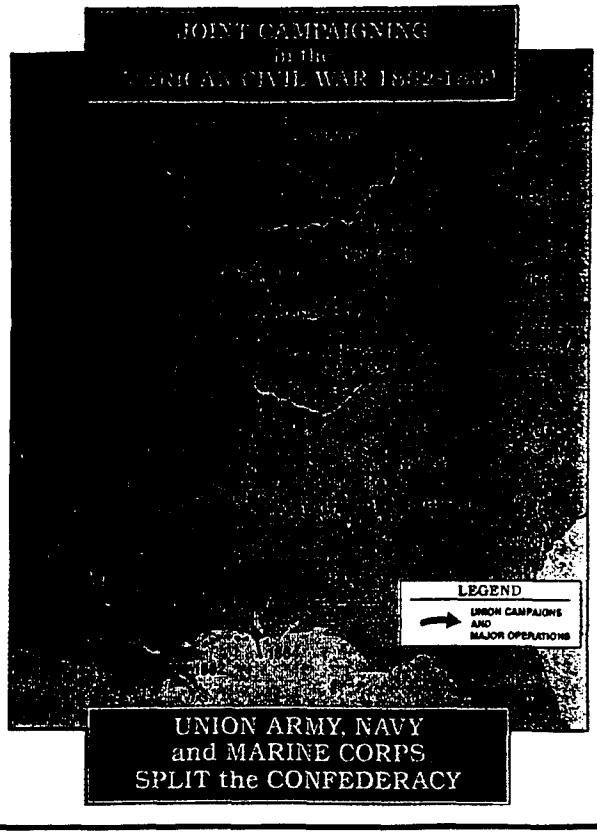
Working through the friction resulting from such policies, the Union Navy, Marine Corps, and Army established the blockade that ultimately damaged the Confederacy. In the Mississippi River Valley, joint riverine operations seized the initiative for the Federal forces early in 1862. By July 1863, these operations helped split the Confederacy in two along the Mississippi River. (See map.[9])

The trust and confidence between offensive-minded generals and admirals and their tenacity and willingness to take risks were key ingredients in these campaigns. In January 1862, General Ulysses S. Grant was rudely put off by his commander, General Henry W. Halleck, when Grant tried to brief plans to capture Forts Henry and Donelson on the Tennessee and Cumberland Rivers. Depressed by this rebuff, Grant's confidence was restored by a naval officer, Flag Officer Andrew Hull Foote. On the basis of extensive prior consultations, Foote understood Grant's intent and was ready to go into battle with him. Foote wired Halleck: "Grant and myself are of opinion that Fort Henry on the Tennessee can be carried with four Iron-clad Gunboats and troops to be permanent occupied. Have we your authority to move for that purpose?"[10] The same night Grant resubmitted his request. Halleck consented, and Grant and Foote launched their successful partnership.

Following Foote's death, Grant established the same type of cooperative relationship with Rear Admiral David Dixon Porter during the Vicksburg campaign:

> "The Navy under Porter was all it could be during the entire campaign [which]...could not have been made at all without such assistance. The most perfect harmony reigned between the two arms of the service."[11]

SOURCE: General U.S. Grant, Memoirs



Capture of Fort Hindman, Arkansas, 11 January 1863. This riverine assault was typical of the many joint operations in the Mississippi River Valley during the Civil War.

Rear Admiral David Dixon Porter, 1863. When asked to run his gunboats under the Confederate guns at Vicksburg, Porter said, "So confident was I of General Grant's ability to carry out his plan that I never hesitated."

Flag Officer Andrew Hull Foote, later forced by battle wounds to relinquish his command.

Major General U.S. Grant, 1863. When asked how he would get transports past the Vicksburg batteries, General Grant replied: "That is the Admiral's affair." (Admiral Porter)

Lastly, **teamwork** is the cooperative effort by the members of a group to achieve common goals. The Armed Forces of the United States are the team. Deterring aggression and, if need be, winning our wars are the team's common goals. Americans culturally respond to and respect teamwork as an important value. This provides the Armed Forces of the United States a solid basis upon which to build effective joint teams. Several elements support effective teamwork:

- **Trust and Confidence.** Trust—defined as total confidence in the integrity, ability, and good character of another—is one of the most important ingredients in building strong teams. Trust expands the commander's options and enhances flexibility, agility, and the freedom to take the initiative when conditions warrant. Trust does not result from good feelings or devout wishes but is based on the mutual confidence resulting from honest efforts to learn about and understand the capabilities each member brings to the team. Trust and confidence within a joint force are built the same way as within a Service tactical unit: by hard work, demonstrated competence, and planning and training together. Trust has often been singled out by key members of the most effective US joint forces as a dominant characteristic of their teams. (See the Afterword for a contemporary example.)

- **Delegation.** The delegation of authority commensurate with responsibility is a necessary part of building trust and teamwork. Oversupervision disrupts teamwork. Military history demonstrates that delegation unleashes the best efforts and greatest initiative among all members of military teams. Delegation is especially important in joint warfare where Service expertise is the essential building block.

"I built trust among my components because I trusted them....If you want true jointness, a CINC should not dabble in the details of component business."[12]

General H. Norman Schwarzkopf, USA Commander, US Central Command during Operation DESERT STORM

- **Cooperation.** This aspect of teamwork can be at tension with competition. Both are central human characteristics, but the nature of modern warfare puts a premium on cooperation with each other to compete with the enemy. Higher echelons should never have to mandate cooperation. Cooperation requires team players and the willingness to share credit with all team members.

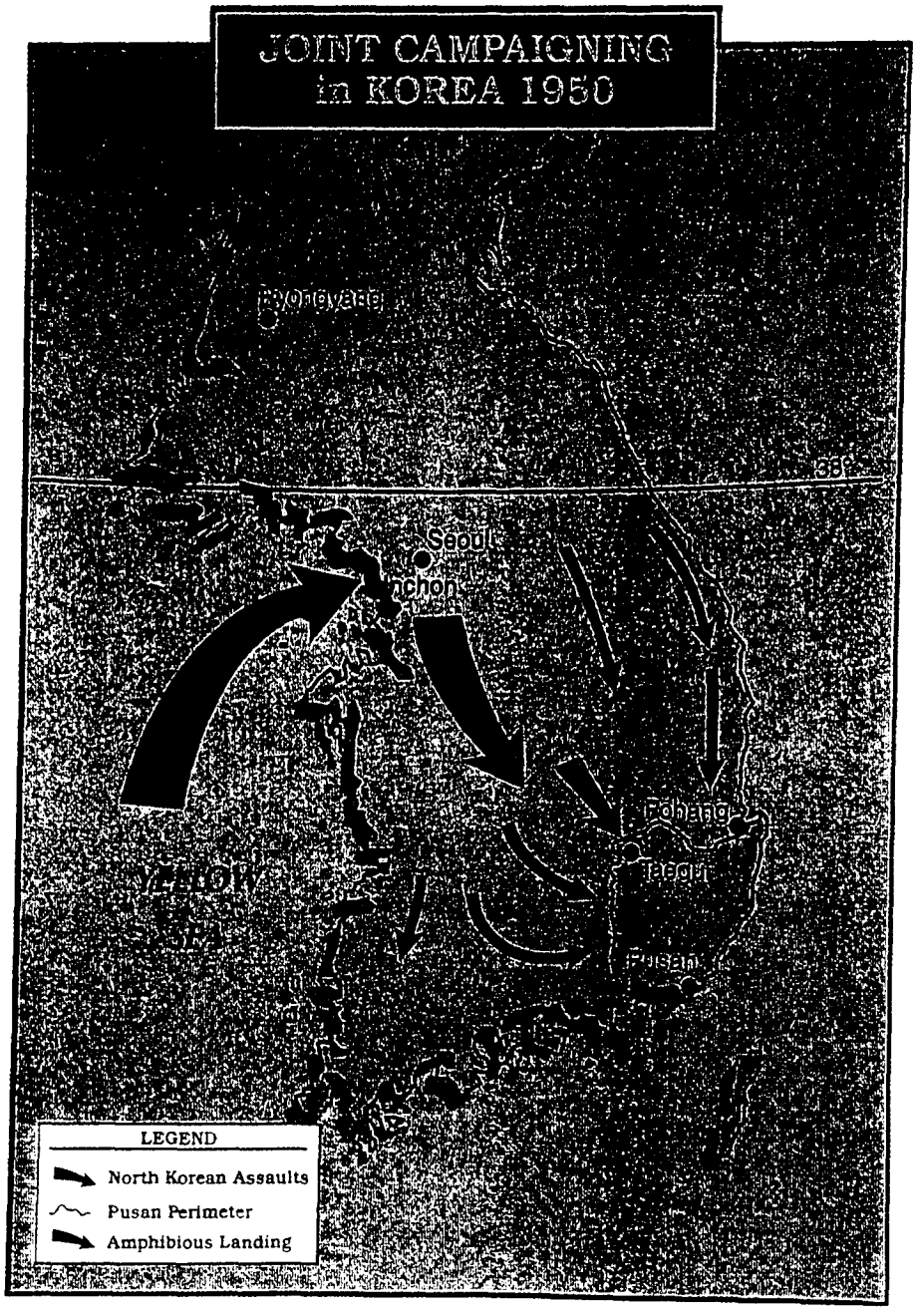
In conclusion, military analysts have long pointed out that unit cohesion is a most important cause of excellence in combat. At a higher organizational level, cultivation of the values discussed in this chapter helps master the challenges inherent in building joint cohesion from individual Service elements and produces a shared loyalty among the members of a joint team. The discussion below of Army General Douglas MacArthur as a joint force commander in World War II and the Korean War illustrates this effect.

MACARTHUR:
DEVELOPMENT OF A JOINT FORCE COMMANDER

The Douglas MacArthur of 1941, with little experience and less trust in naval and air power, evolved swiftly under the pressures of war and with the tutelage of superb subordinates: General George C. Kenney, USAAF, and Admiral Thomas C. Kinkaid, USN. General Kenney played a direct and personal role in educating MacArthur in the potential of air power and what the imaginative and competent command of that medium could achieve (see page IV-9). Admiral Kinkaid (and his leader of amphibious forces, Admiral Daniel E. Barbey) performed the same function with regard to naval power. Kinkaid was able to parlay superior competence and unhesitating loyalty into a firm professional relationship, in the course of which MacArthur learned much about the characteristics and flexibility of naval operations (despite MacArthur's incessant feuding with the Navy Department over command issues).

MacArthur's World War II experience developed in him an appreciation for the strategic and operational leverage provided by amphibious assaults covered by air superiority. It was natural for MacArthur to insist that a deep amphibious landing would break the back of the North Korean assault in 1950 (despite the practical difficulties of his chosen landing site at Inchon).

Planned, prepared for, and executed within three months, Inchon was a triumph of joint operations in the most difficult of circumstances. Under General MacArthur's leadership, initial hesitations and problems of inter-Service coordination were overcome. (The underdeveloped state of joint doctrine, for instance, led to arguments over command relations that impeded planning and execution.) But ultimately General MacArthur, a joint force commander aware of the potential of his forces, capitalized on the superb efforts of Marines, Sailors, Soldiers, and Airmen to achieve a striking victory.


JOINT CAMPAIGNING
in KOREA 1950
Pyongyang
38°
Seoul
Inchon
Pohang
Taegu
Pusan
YELLOW
LEGEND
North Korean Assaults
Pusan Perimeter
Amphibious Landing

General MacArthur observing the airborne drop at Lae, New Guinea, 4 September 1943 (General Kenney, who orchestrated the operations and accompanied General MacArthur on this flight is pictured on page IV-8).

General MacArthur and Admiral Kinkaid on board cruiser USS Phoenix (CL-46), February 1944.

General MacArthur and some of his commanders observe the Inchon landing aboard the command ship USS Mount McKinley (AGC-7), 15 September 1950. From left to right, Rear Admiral James H. Doyle, Brigadier General E. K. Wright, and Major General Edward M. Almond.

CHAPTER III
FUNDAMENTALS OF JOINT WARFARE

THE PRINCIPLES OF WAR AND THEIR APPLICATION

The principles of war represent the best efforts of military thinkers to identify those aspects of warfare that are universally true and relevant. The principles of war currently adopted by the Armed Forces of the United States are objective, offensive, mass, economy of force, maneuver, unity of command, security, surprise, and simplicity. (These principles are discussed in Joint Pub 3-0, "Doctrine for Joint Operations.") These principles deserve careful study by all who practice the military art, because the insights suggested by their analysis span the entire range of military operations. The rest of this section presents concepts derived from applying the principles of war in the specific context of joint warfare. In some cases, several principles are involved in the particular application concerned. In all cases, the principles are applied broadly, avoiding literal or dogmatic construction, and with due regard for the unique characteristics of joint warfare.

- The first application is unity of effort. Success in war demands that all effort be directed toward the achievement of common aims.

We achieve **unity of effort** first at the national level. The President, assisted by the National Security Council, develops national security strategy (otherwise known as national or grand strategy), employing the political/diplomatic, economic, informational, and military powers of the nation to secure national policy aims and objectives. In support of this national security strategy, the Chairman of the Joint Chiefs of Staff, in consultation with the other members of the Joint Chiefs of Staff, advises the President and Secretary of Defense (the National Command Authorities, or NCA) concerning the application of military power. The resulting national military strategy provides strategic focus for US military activity. Strategy involves understanding the desired policy goals for a projected operation; that is, what should be the desired state of affairs when the conflict is terminated. The clear articulation of aims and objectives and the resulting strategic focus are fundamental prerequisites for unity of effort.

National military strategy provides focus not only for war involving simultaneous major combat in multiple theaters (like World War II), but also for the more likely case of regional crises, to which the Armed Forces respond rapidly, resolve, redeploy forces, and prepare for future operations. In such cases, a single combatant command is normally supported, with others providing that support, and the Chairman of the Joint Chiefs of Staff assists the NCA as coordinator of the whole effort. Even here, however, where only one combatant command is supported, use of American military power directly or indirectly affects the other combatant commands and Federal agencies. Of the ten combatant commands of the Armed Forces of the United States in 1990, for instance, nine played major roles in the Gulf War, and the tenth (US Southern Command) was affected. Six of these commands supported US Southern Command in Operation JUST CAUSE in Panama. Cooperation among the combatant commanders and their supporting joint

force and component commanders—within the framework of unity of effort directed and arranged at the national level—is critical.

- **Concentration** of military power is a fundamental consideration. We should strive to operate with overwhelming force, based not only on the quantity of forces and materiel committed, but on the quality of their planning and skillfulness of their employment. Properly trained and motivated forces with superior technology, executing innovative, flexible, and well-coordinated plans, provide a decisive qualitative edge. Careful selection of strategic and operational priorities aids concentration at the decisive point and time. Action to affect the enemy's dispositions and readiness prior to battle and to prevent enemy reinforcement of the battle by land, sea, or air also promotes concentration. The purpose of these and related measures is to achieve strategic advantage and exploit that advantage to win quickly, with as few casualties as possible.

- Seizing and maintaining the **initiative** is an American military tradition. Because the United States of America is not an aggressor nation, we may initially find ourselves forced to fight defensively for a time. However, our actions should be offensive in spirit, exploiting the full leverage of balanced, versatile joint forces to confuse, demoralize, and defeat the enemy. Taking calculated risks to throw an opponent off balance or achieve major military advantage may be required. In any case, retaining the initiative relies on the ability of our military people to think for themselves and execute orders intelligently—the ingenuity that has always been an American trademark.

- **Agility**, the ability to move quickly and easily, should characterize our operations. Agility is relative; the aim is to be more agile than the foe. Agility is not primarily concerned with speed itself, but about timeliness: thinking, planning, communicating, and acting faster than the enemy can effectively react. Operating on a more accelerated time scale than the enemy's can expand our options while denying opponents options that they deem important.

"The true speed of war is...the unremitting energy which wastes no time."[3]

Rear Admiral
Alfred Thayer Mahan

Agility has different perspectives based on the level of war (strategic, operational, or tactical). At each of these levels, operations on land and sea, undersea, and in the air and space must achieve a synchronized timing and rapid tempo that overmatch the opponent.

Strategic agility requires properly focused logistic support and a smoothly functioning defense transportation system. Forward-deployed forces, prepositioning, and the ability to deploy forces rapidly from the United States, and redeploy them as necessary within and between theaters, also enhance strategic agility.

The interaction of air, land, and sea forces contributes powerfully to operational agility, as shown by the example of the Solomon Islands campaigns on the next page. The ability to integrate and exploit the various

capabilities of a joint force can disorient an enemy who is weak in one or more of the dimensions of warfare, helping to create a mismatch between what the foe anticipates and what actually occurs. This mismatch can lead to shock, panic, and demoralization, especially in the minds of the enemy leadership.

JOINT CAMPAIGNING IN THE SOLOMONS, 1942-1943

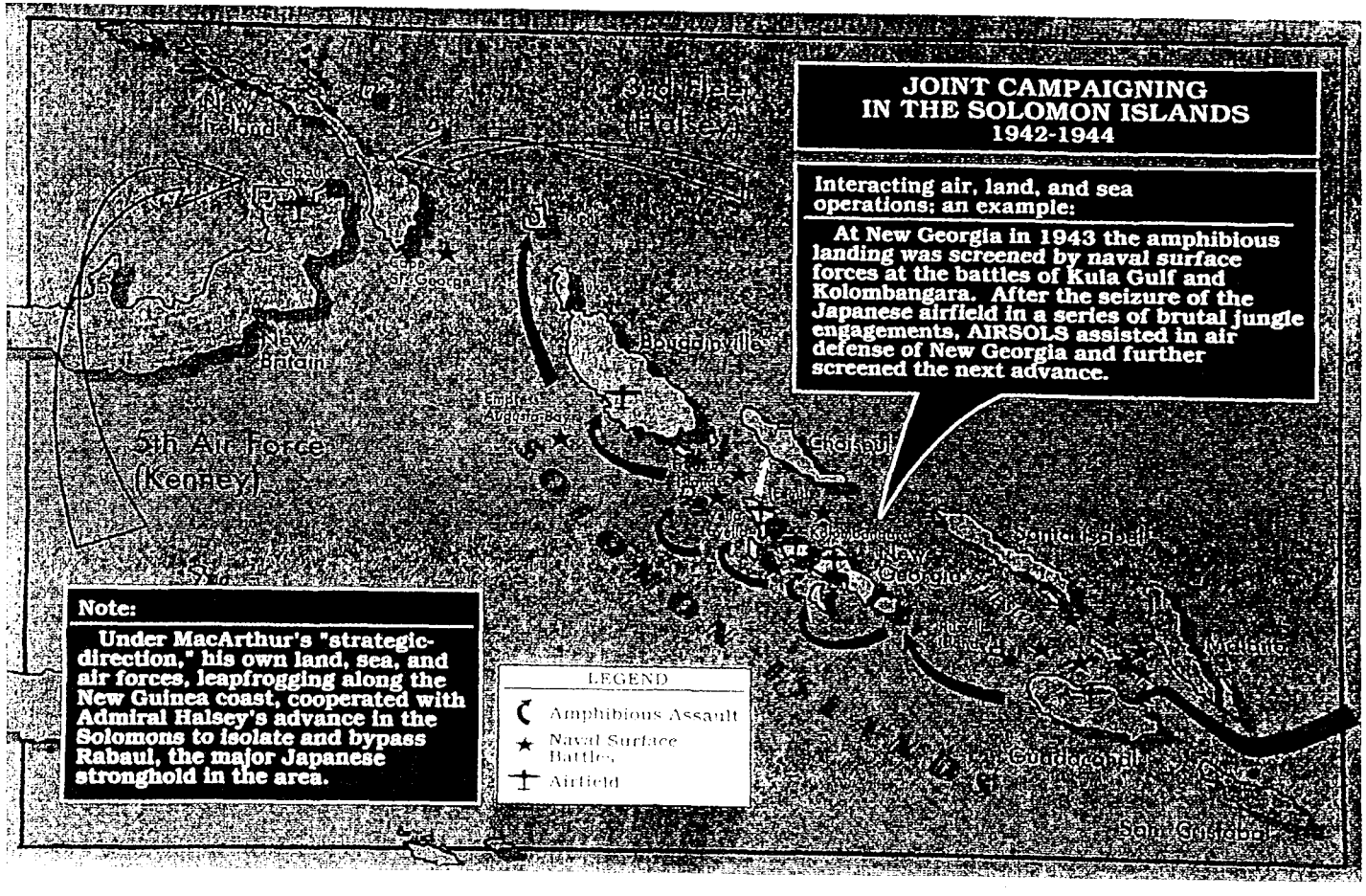
The struggle for control of the Solomon Islands was a critical turning point in the war against Japan. These campaigns can best be appreciated as a sequence of interacting naval, land, and air operations.

Operations began with the August, 1942 amphibious landings at Guadalcanal, an audacious stroke to eliminate the threat posed by a potential Japanese air base on that island to the Allied air and sea lines of communication with Australia. During the next several months, under the tenacious leadership of General Alexander A. Vandegrift, USMC, Marine and later Army units fought a series of desperate land battles to defend Henderson Field, the captured airfield on Guadalcanal. During the same period US Navy and Allied naval forces fought six grueling surface actions, finally thwarting the Japanese naval bombardment that had so punished the land and air forces ashore. From Henderson Field flew a unique air force: Marine, Navy, and Army Air Forces planes under a single air command, the "Cactus Air Force." (CACTUS was the codeword for Guadalcanal.) In the words of Rear Admiral Samuel Eliot Morison, "If it had wings it flew; if it flew it fought...."[14]

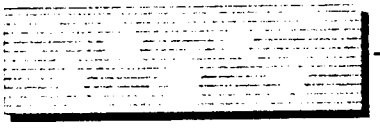
In February 1943 the Japanese evacuated Guadalcanal. The Allies undertook a sequence of actions to capture the remaining Solomons and isolate the huge Japanese base at Rabaul. Local air superiority enabled naval surface forces to shield amphibious landings from enemy surface ships and submarines; land forces once ashore seized and built airfields; from these airfields air forces assisted in their defense and extended air cover to shield further naval advance; and then the cycle repeated.[16] (See map.) The Cactus Air Force grew into Air Solomons Command (AIRSOLS), a remarkably effective joint and combined air organization led in turn by Marine, Navy, and Army Air Forces commanders.

"For control of a patch of ocean...Marines clung doggedly to an inland ridge, for a ground victory weeks in the future pilots nursed aloft their worn-out aircraft against all odds, and for possession of their landing field warships miles distant pounded at one another in darkness fitfully lit by searchlights, gunfire, and flaming wreckage. No episode in World War II better illustrates than Guadalcanal the interdependence of the Services that is characteristic of "modern war." Any one of the military arms of land, sea, or sky could have thrown away the issue; none alone could gain it."[15]

Eric Larrabee
Commander in Chief


JOINT CAMPAIGNING
IN THE SOLOMON ISLANDS
1942-1944
Interacting air, land, and sea operations: an example:
At New Georgia in 1943 the amphibious landing was screened by naval surface forces at the battles of Kula Gulf and Kolombangara. After the seizure of the Japanese airfield in a series of brutal jungle engagements, AIRSOLS assisted in air defense of New Georgia and further screened the next advance.
Note:
Under MacArthur's "strategic-direction," his own land, sea, and air forces, leapfrogging along the New Guinea coast, cooperated with Admiral Halsey's advance in the Solomons to isolate and bypass Rabaul, the major Japanese stronghold in the area.
LEGEND
Amphibious Assault
Naval Surface Battles
Airfield
5th Air Force (Kenney)
New Britain
Bougainville
Choiseul
Santa Isabel
Guadalcanal
Malaita
San Cristobal

General Vandegrift receiving the Medal of Honor from President Franklin D. Roosevelt. 4 February 1943. Also present are General Vandegrift's wife and son.



THE MEDAL OF HONOR
IS AWARDED TO
GENERAL ALEXANDER A. VANDEGRIFT
UNITED STATES MARINE CORPS

The citation read in part:

His tenacity, courage and resourcefulness prevailed against a strong, determined and experienced enemy, and the gallant fighting spirit of the men under his inspiring leadership enabled them to withstand aerial, land and sea bombardment to surmount all obstacles...

General Vandegrift in command on Guadalcanal, September 1942. The General's rifle and bayonet are leaning against a tree. "He was one of the earliest to arrive at a balanced understanding of how land, sea, and air power interrelate..."

- When militarily advantageous, operations should be **extended** to the fullest breadth and depth feasible, given political, force, and logistic constraints. Requiring the enemy to disperse forces over a broad area can result in virtual attrition of those forces and complicate enemy planning. At the operational level, joint air, land, sea, special operations, and space forces can enable operations to be extended throughout a theater, denying sanctuary to the enemy. At the strategic level, for a country like the United States, with global responsibilities and worldwide military capabilities, the use of armed force anywhere can have implications throughout our military establishment. Commanders not immediately affected may nonetheless play critically important support roles, while preparing their forces for the possibility of more direct involvement should the scope or site of conflict change or expand.

- Maintaining **freedom of action** is vitally important. There are many components to securing the freedom to act. Effective diplomatic, economic, military, and informational components of national security strategy are needed to provide the freedom to act at the national level. Adequate logistic support is essential, as is maintaining the operations security of plans and gaining the fullest possible surprise. Having a force structure that provides insurance against unanticipated developments or the underestimation of enemy strengths is important as well.

Several aspects of modern warfare tend to **restrict** freedom of action. Sophisticated information technology and the nature of modern news reporting, for instance, make the tasks of ensuring operations security and surprise more difficult. But as Operations JUST CAUSE, DESERT SHIELD, and DESERT STORM showed, tight operations security—even at the expense of some staff efficiency—can work to achieve effective surprise. Joint forces should understand these sorts of very demanding security precautions are a likely part of future operations and should accommodate stringent operations security in exercises and training in order to practice staff efficiency and public affairs activities under realistic conditions.

Finally, the role of deception in securing freedom of action should never be underestimated. Indeed, military thinkers since Sun Tzu have stressed the central nature of deception in successful warfare. Deception can provide a highly leveraged means to confuse our enemies and cause them to miscalculate our intentions, deploy their forces poorly, and mistakenly estimate our strengths and weaknesses, while helping to preserve our own freedom of action. Deception at the joint force level requires clear themes around which all components can focus their efforts.

- **Sustaining** operations at the strategic and operational levels underwrites agility, extension of operations, and freedom of action. In the words of Rear Admiral Henry Eccles, USN, "The essence of flexibility is in the mind of the commander; the substance of flexibility is in logistics."[18] Strategic and theater logistics and deployment concepts are integral to combat success. These concepts are driven by the plans and orders of joint force commanders and supported by the Services, by other supporting commands, and often by

host-nation support from allies and friends. Logistic standardization (to include deployment procedures and equipment interoperability where practical) will also enhance sustainment of joint force operations.

- Because modern warfare is inherently complex, plans and operations should be kept as simple as possible. **Clarity** of expression should predominate, using common terms and procedures. This is particularly important when operating with allies or improvised coalitions. Making sure we talk the same language and keeping that language clear and concise are essential.

"Know the enemy and know yourself; in a hundred battles you will never be in peril."[19]

Sun Tzu

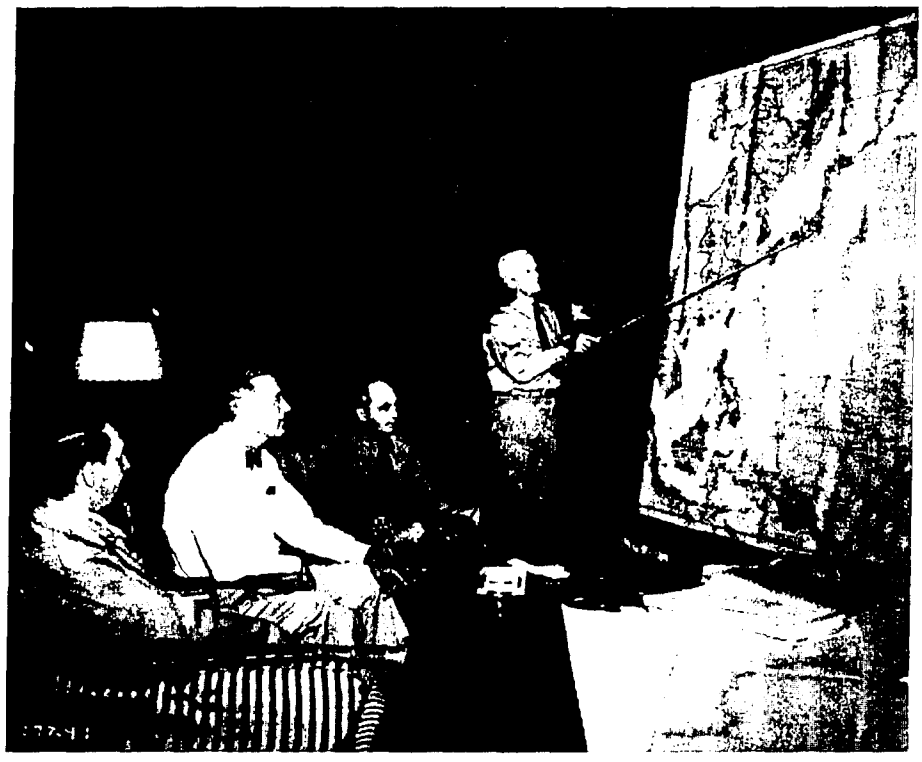
- Sun Tzu's advice is still cogent after 2,500 years. **Knowledge of self** is required for effective joint operations. The first priority is to have a full and frank appreciation for the capabilities and limitations of all friendly forces. In joint matters, reliance is first upon component commanders and staffs as the true experts on their forces. Service forces assigned to a joint force provide an array of combat power from which the joint force commander chooses. Component commanders best know the unique capabilities their forces bring to combat and how those capabilities can help attain the joint force commander's objectives. Component commanders should also know how these capabilities mesh with the forces of the other components. They can then assist joint force commanders, other component commanders, and their staffs to integrate the whole.

The requirement to plan and conduct joint operations demands expanded intellectual horizons and broadened professional knowledge. Leaders who aspire to joint command must not only have mastered the essentials of their own Service capabilities, but also must understand the fundamentals of combat power represented by the other Services. Beyond that, they must have a clear sense of how these capabilities are integrated for the conduct of joint and multinational operations. This individual professional growth, reinforced by military education and varied Service and joint assignments, leads to a refined capability to command joint forces in peace and war.

"You should not have a favorite weapon. To become overfamiliar with one weapon is as much a fault as not knowing it sufficiently well....It is bad for commanders...to have likes and dislikes."[20]

Miyamoto Musashi
17th century Japanese warrior
The Book of Five Rings

- **Knowledge of the enemy** is a preeminent but difficult responsibility. Traditionally, emphasis has been on understanding enemy capabilities; but knowledge of enemy intentions can be equally or even more important, to the extent that it sheds light on enemy plans and allows us to take timely and effective action to blunt them (the Battle of Midway is the classic modern example).



Admiral Chester W. Nimitz briefs Admiral William D. Leahy, President Roosevelt, and General MacArthur on Pacific offensive plans. 26 July 1944. Throughout the Pacific War. Admiral Nimitz used intelligence to determine enemy intentions and arrange his campaigns and operations accordingly. At the Battle of Midway in June 1942, for instance. superb signals intelligence led to one of Nimitz' greatest victories.

The Armed Forces of the United States and the national intelligence community have invested enormous resources in harnessing the capability of modern technology to provide intelligence to the operator. The challenge for joint force commanders normally is not to amass more data but to extract and organize the knowledge most useful for overcoming the enemy. A key concept that integrates intelligence and operations is centers of gravity, a term first applied in the military context by Clausewitz to describe "the hub of all power and movement, on which everything depends."[22] Joint doctrine defines centers of gravity as: "Those characteristics, capabilities, or localities from which a military force derives its freedom of action, physical strength, or will to fight."[23]

Finding and attacking enemy centers of gravity is a singularly important concept. Rather than attack peripheral enemy vulnerabilities, attacking centers of gravity means concentrating against capabilities whose destruction or overthrow will yield military success. Though providing an essential focus for all efforts, attacking centers of gravity is often not easy. "Peeling the onion," that is, progressively first defeating enemy measures undertaken to defend centers of gravity, may be required to expose those centers of gravity to attack, both at the strategic and operational levels. Actions

to extend offensive efforts throughout the theater, including deep penetrations of enemy territory, can increase the vulnerability of enemy centers of gravity.

This concept of centers of gravity helps joint force commanders focus their intelligence requirements (including the requirement to identify friendly centers of gravity that must be protected from enemy attack). Intelligence should be timely, objective, responsive, complete, accurate, and relevant. (Joint Pub 2-0, "Doctrine for Intelligence Support to Joint Operations.") It should aid the identification of centers of gravity and suggest how they might most effectively be dealt with. Beyond that, however, intelligence should provide the capability to verify which desired military effects have or have not been achieved and generally support the commander's situational awareness in what will often be a dynamic, fast-moving, and confusing (fog of war) situation.

- **Knowing oneself and the enemy allows employment of friendly strength against the enemy's weaknesses and avoids exposing friendly weaknesses to the enemy strengths.** This fundamental and familiar precept is designed to preserve the competitive advantage for one's own forces. It suggests a strategy of indirection—avoiding head-on attacks when enveloping movements, for example, will better capitalize on one's strengths and enemy weaknesses. The diversity and flexibility of joint forces are particularly well suited to provide the commander with an expanded range of operational or tactical options. The side with the most effective integration of operations on land and sea, undersea, and in the air and space is best situated to exploit the diversity of approaches that a joint force provides.

THE EXERCISE OF COMMAND

American military power is employed under joint force commanders. After the strained joint relationships of the Spanish-American War in 1898, "mutual cooperation" among the Services was the best doctrinal accommodation that was achieved until 1942.[23] Since World War II, the Armed Forces of the United States, under the oversight of the President, the Secretary of Defense, and the Congress have periodically redefined command authority (at intermediate levels between the President as Commander in Chief and tactical units) to provide joint force commanders with increased authority over assigned and attached forces. Under the provisions of the 1986 Department of Defense Reorganization Act, combatant commanders have the full range of authority needed to meet their responsibilities. Moreover, Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)," defines a flexible range of command relationships specifying levels of command authority that can be granted to operational commanders to accomplish the mission. These include combatant command (command authority) or COCOM, which only combatant commanders can exercise; operational control (OPCON); tactical control (TACON); and support.

The primary emphasis in command relations should be to keep the chain of command short and simple so that it is clear who is in charge of what. Unity of command is the guiding principle of war in military command relationships.

The importance of an efficient joint force command structure cannot be overstated. Command, control, communications, and computer systems should be reliable, survivable, flexible, interoperable, timely, and secure. (Joint Pub 6-0, "Doctrine for Command, Control, Communications, and Computer Systems Support to Joint Operations") Modern technology provides command, control, and communications capabilities far superior to those of the past (the leverage provided by space-based support being especially important). Nevertheless, operations may have to be conducted in a severely degraded communications environment. A clearly understood aim (commander's intent) enables subordinates to exercise initiative and flexibility while pursuing the commander's goals and priorities. Joint force commanders should scrupulously avoid overly detailed management and direction. Simple orders with the intent of the commander clearly articulated comprise the best basis for clear and effective communications between and among all elements of the joint force.

"The key to the concept is simple: centralized planning and decentralized execution....The basic requirement of decentralized operations in general war is preplanned response in accordance with commonly understood doctrine. Lord Nelson did not win at Trafalgar because he had a great plan, although his plan was great. He won because his subordinate commanders thoroughly understood that plan and their place in it well in advance of planned execution. You must be prepared to take action...when certain conditions are met; you cannot anticipate minute-by-minute guidance...."

Vice Admiral Henry C. Mustin III, USN, Commander Second Fleet/ Joint Task Force 120
Fighting Instructions, 1986

Experience shows liaison is a particularly important part of command, control, communications, and computers in a joint force. Recalling Clausewitz' analogy of a military force as an intricate machine, ample liaison parties, properly manned and equipped, may be viewed as a lubricant that helps keep that machine working smoothly. The Gulf War vividly demonstrated the role of effective liaison in both the joint and multinational contexts (see the Afterword).

The role of component commanders in a joint force merits special attention. Component commanders are first expected to orchestrate the activity of their own forces, branches, and warfare communities—itself a demanding task. In addition, effective component commanders understand how their own pieces fit into the overall design and best support the joint force commander's plans and goals. Component commanders also should understand how they can support and be supported by their fellow component commanders. Leaders who possess this extra dimension of professionalism have the potential to become great component commanders. At the tactical level, a combat example of this attitude follows:

THE MEDAL OF HONOR
IS AWARDED TO
LIEUTENANT THOMAS G. KELLY
UNITED STATES NAVY

While serving as Commander River Assault Division 152 on the afternoon of 15 June 1969 during combat operations against enemy aggressor forces in the Republic of Vietnam. Lieutenant Kelley was in charge of a column of eight river assault craft which were extracting one company of United States Army infantry troops on the east bank of the Ong Muong Canal in Kien Hoa Province, when one of the armored troop carriers reported a mechanical failure of a loading ramp. At approximately the same time, Viet Cong forces opened fire from the opposite bank of the canal. After issuing orders for the crippled troop carrier to raise its ramp manually, and for the remaining boats to form a protective cordon around the disabled craft, Lieutenant Kelley, realizing the extreme danger to his column and its inability to clear the ambush site until the crippled unit was repaired, boldly maneuvered the monitor in which he was embarked to the exposed side of the protective cordon in direct line with the enemy's fire, and ordered the monitor to commence firing. Suddenly, an enemy rocket scored a direct hit on the coxswain's flat, the shell penetrating the thick armor plate, and the explosion spraying shrapnel in all directions. Sustaining serious head wounds from the blast, which hurled him to the deck of the monitor, Lieutenant Kelley disregarded his severe injuries and attempted to continue directing the other boats. Although unable to move from the deck or to speak clearly into the radio, he succeeded in relaying his commands through one of his men until the enemy attack was silenced and the boats were able to move to an area of safety.

The role of training and education is indispensable to effective command. We fight as we train and exercise, and the skills of our leaders rest in large part on the quality of their military training and education. Members of the Armed Forces of the United States should understand the mechanisms for joint education and training. In this regard, computer simulations add an effective tool for the high quality combat training of command cadres in joint operations (they also have great utility in validating joint operation planning).

Finally, a discussion of command should not neglect the enemy's command structure. Joint forces should be prepared to degrade or destroy the enemy's command capability early in the action. The interaction of air, land, sea, special operations, and space capabilities offers the joint force commander a powerful command and control warfare capability that can dramatically increase the shock effect, disorientation, and operational paralysis caused by the joint force's operations against the enemy. By blinding the enemy and severing enemy command links, the joint force can drastically reduce an opponent's effectiveness.

NATIONAL-LEVEL CONSIDERATIONS

- When the United States undertakes military operations, the Armed Forces of the United States are only one component of a **national-level effort** involving the various instruments of national power: **economic**, **diplomatic**, **informational**, and **military**. Instilling unity of effort at the national level is necessarily a cooperative endeavor involving a variety of Federal departments and agencies.

For example, there is a constant, often urgent need to coordinate the various aspects of the informational instrument of national security strategy: public affairs, psychological operations, and public diplomacy. This informational effort is crucial to the success of any contemporary military operation, because it involves the support of the American people, allies, and friendly nations and the morale of the opposing side. Yet the Department of Defense is in overall charge of none of these areas. Military leaders must work with other members of the national security team in the most skilled, tactful, and persistent way to promote unity of effort.

The combatant commands play key roles in cooperation with other Federal and Defense agencies within their theaters. This is one reason why the term "unified operations" is a useful description for the broad, continuing activities of the combatant commands. But subordinate levels of joint force and component commands often act in the interagency arena, as this example of a joint task force in counterdrug operations illustrates:

JTF-4 AND COUNTERDRUG OPERATIONS: THE INTERAGENCY ARENA

The counterdrug operations of the US Atlantic Command's Joint Task Force (JTF) Four in 1991 illustrate the complexities of unity of effort in the interagency arena. These operations required close coordination between combatant commands, as well as over thirty Federal agencies and thousands of organizations at the State and local level. In this arena, the Department of Defense worked to support law enforcement agencies and host nations in their counterdrug efforts.

A typical mission to detect and monitor a drug smuggling aircraft began with an intelligence cue from anywhere in the Intelligence Community, processed by JTF-4's Joint Fusion Center. The JTF operations center was staffed by members of all Services and included US Customs Service and Drug Enforcement Agency liaison personnel. Working together, they placed detection assets as close to the suspect's point of departure as possible. These assets included US Air Force, Navy, Coast Guard, or Customs Airborne Early Warning (AEW) aircraft. Navy ships and Coast Guard cutters with air search radars were also used to track aerial smugglers to fill gaps in AEW and land-based radar coverage. Once detected, forward-deployed Air Force or Air National Guard interceptors were launched to monitor a suspect until it could be handed off to Coast Guard, Customs, or foreign interceptors. JTF-4 closely coordinated the operation with the Coast Guard and Customs Service East Coast operations center as the operation shifted from detection and monitoring to interdiction and apprehension.

If an arrival zone could be determined in the case of "airdrops" (cocaine or other contraband air-delivered to fast boats), surface forces (Coast Guard cutters or Navy ships with Coast Guard Law Enforcement Detachments embarked) were directed to the area for interdiction of the contraband and apprehension of the "pickup" vessels and crews. If the aerial smuggler approached US airspace, JTF-4 passed the track information to the North American Aerospace Defense Command and Forces Command command centers for further coordination with law enforcement agencies. In the case

of transshipment via a foreign country, the JTF-4 operations center notified the US Southern Command operations center, which coordinated with the military group (or Tactical Analysis Team) at the American Embassy, which in turn notified the appropriate officials of the country involved. This tactical information could then be used by foreign forces to interdict and apprehend the smugglers on their territory. The same process was used to interdict aerial smugglers returning to their country of departure. Similar operations were conducted in the Pacific area of responsibility by US Pacific Command through Joint Task Force Five. These operations required interagency and intergovernmental coordination and cooperation on many levels for the common goal of suppressing the trafficking in illegal drugs.

The Armed Forces of the United States must also be sensitive to the state of the national economic base and the constraints it places on Federal funding, particularly in times of peace. At the same time, we should always be prepared to convert national strength into military force through mobilization of reserve forces and industrial resources and the reconstitution of forces. In all our activity we must be sensitive to the Armed Forces' obligation to use the country's resources in efficient and economical ways, including the standardization and interoperability of our equipment.

Last, **we in the Armed Forces of the United States must account for our actions with the American people whom we serve,** by dealing openly and well with the representatives of the nation's free press. We are also responsible for protecting classified information related to the national security and will be challenged by the news media concerning such information. It is our duty as members of the Armed Forces to balance these demands in a responsible and intelligent fashion.

MULTINATIONAL ENDEAVORS

- There is a good probability that any military operation undertaken by the United States of America will have **multinational** aspects, so extensive is the network of alliances, friendships, and mutual interests established by our nation around the world. Here again the role of the combatant commanders in conducting the broad sweep of unified operations within their theaters is crucial and requires acute political sensitivity (the supporting joint and component commanders within combatant commands also play key roles in this regard). Whether operations are combined (involving members of a formal alliance) or a temporary coalition of other partners, certain considerations are important.

First, **we should always operate from a basis of partnership and mutual respect.** This is similar to the relationship that prevails among the Armed Forces of the United States, but the situation is more complex because the nature and composition of multinational partnerships may vary greatly from case to case. In many cases, positive US leadership of the multinational effort will be indispensable; but even in those situations, the predominant attitude must be one that recognizes the essential equality of all partners. On the other hand, there will be times when our forces may

be subordinated to a multinational commander, and we should be prepared to accept and support this as a natural aspect of coalition warfare.

"Allied commands depend on mutual confidence. How is mutual confidence developed? You don't command it....By development of common understanding of the problems, by approaching these things on the widest possible basis with respect to each other's opinions, and above all, through the development of friendships, this confidence is "gained in families and in Allied Staffs."[24]

General of the Army
Dwight D. Eisenhower

Experience shows that **simplicity and clarity of plan and statement** are even more necessary in the combined and coalition environment than in US-only operations.

Readiness to operate in the multinational environment is a requirement for joint forces. To successfully project American military power, assistance with deployment, arrival, and en route support are critical requirements from our allies and friends. Host nation support and mutual support between allies should be constantly enhanced. We should work with our partners to exploit the unique capabilities of the various national forces available. Interoperability of equipment, techniques, and procedures is often of major importance. Even when dealing with a temporary coalition, the effort and resources previously expended to achieve combined doctrine and interoperability with allies becomes helpful in working with newly found partners. During the Gulf War, for instance, North Atlantic Treaty Organization (NATO) procedures for maritime command and control became convenient models for working out similar arrangements with non-NATO coalition forces. Finally, planning, training, and exercising with allies promote mutual respect and teamwork.

In all multinational endeavors, the teamwork of the Armed Forces of the United States should set a strong example. Working together is more difficult in the international arena; operating from a smoothly coordinated, highly cooperative joint force perspective makes relations more productive and beneficial. Thus, effective US joint action facilitates our transition to operations in the multinational arena, and has the potential to encourage foreign partners themselves to operate more jointly.

CHAPTER IV
THE JOINT CAMPAIGN

CHARACTERISTICS

Campaigns represent the art of linking battles and engagements in an operational design to accomplish strategic or operational objectives. (Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms," defines a campaign plan as "a plan for a series of related military operations aimed to accomplish a common objective, normally within a given time and space.") Campaigns are conducted in theaters of war and subordinate theaters of operations; they are based on theater strategic estimates and resulting theater strategies. **Campaigns of the Armed Forces of the United States are joint; they serve as the unifying focus for our conduct of warfare.** Modern warfighting requires a common frame of reference within which operations on land and sea, undersea, and in the air and space are integrated and harmonized; that frame of reference is the joint campaign. As such, the joint campaign is a powerful concept that requires the fullest understanding by the leaders of the Armed Forces of the United States. The following discussion outlines some of the most significant characteristics of these campaigns.

- The joint campaign is **planned within the context of the modern theater environment,** a complex setting where events, especially in a crisis, can move rapidly. This puts a premium on the ability of joint force commanders and their staffs and components to conduct campaign planning under severe time constraints and pressures. This ability in turn rests upon the quality of peacetime planning and analysis by joint force commanders concerning their theater strategic situations and likely scenarios and courses of action. Campaign planning is done in crisis or conflict (once the actual threat, national guidance, and available resources become evident), but the basis and framework for successful campaigns is laid by peacetime analysis, planning, and exercises. These plans and exercises also provide invaluable training for commanders and staffs in the characteristics of the theater strategic environment and sharpen skills that are fundamental to successful planning in war.

- The joint campaign supports national strategic goals and is heavily **influenced by national military strategy.** The role of the national-level military leadership is critical; the adjustment of national strategic focus and resource availability directly influences campaign design. The closest coordination between the national and theater levels of command is imperative.

- **Logistics sets the campaign's operational limits.** The lead time needed to arrange logistics support and resolve logistics concerns requires continuous integration of logistic considerations into the joint operation planning process. This is especially critical when available planning time is short. Constant coordination and cooperation between the combatant command and component staffs—and with other combatant commands—is a prerequisite for ensuring timely command awareness and oversight of deployment, readiness, and sustainment issues in the theater of war.

- The joint campaign is **oriented on the enemy's strategic and operational centers of gravity.** This requires planning for theater-level intelligence collection, integrating all sources of information into the focused intelligence required by the commander.

- The joint campaign plan is **based on the commander's concept.** The formulation of the commander's concept is the intellectual core of the campaign plan, which presents a broad vision of the required aim or "end state" (the commander's intent) and how operations will be sequenced and synchronized to achieve conflict termination objectives (including required post-conflict measures). Accordingly, the campaign plan itself can be brief, though implementing orders will usually be longer. Joint force commanders are the most vital cog in the campaign planning process—they bring experience, knowledge, and vision. They and their staffs need to develop early in the planning process four parts to their overall commander's concept:

  •• the operational concept itself, based on the theater strategy, which is the scheme for the entire operation;

  •• the logistic concept, which provides a broad picture of how the joint force as a whole will be supported (the operational concept may stretch but not break the logistic concept);

  •• the deployment concept (sequencing of operational capabilities and logistic support into the objective area);

  •• and the organizational concept (external and internal command relationships, and, if required, organization for deployment).

- The joint campaign plan achieves **sequenced and synchronized employment of all available land, sea, air, special operations, and space forces**—orchestrating the employment of these forces in ways that capitalize on the synergistic effect of joint forces. The objective is the employment of overwhelming military force designed to wrest the initiative from opponents and defeat them in detail. A joint force, employed in its full dimensions, allows the commander a wide range of operational and tactical options that pose multiple and complex problems for the enemy.

Synergy results when the elements of the joint force are so effectively employed that their total military impact exceeds the sum of their individual contributions. Synergy is reinforced when operations are integrated and extended throughout the theater, including rear areas. The full dimensional joint campaign is in major respects "non-linear." That is, the dominant effects of air, sea, space, and special operations may be felt more or less independently of the front line of ground troops. The impact of these operations on land battles, interacting with the modern dynamics of land combat itself, helps obtain the required fluidity, breadth, and depth of operations. In the same way, land operations can provide or protect critical bases for air, land, sea, and space operations and enable these operations to be supported and extended throughout the theater.

"It may be that the most serious weakness of the German defense in the west was...the lack of a unified command."[25]

G. A. Harrison
Cross-Channel Attack

OVERLORD: A CLASSIC JOINT AND COMBINED OPERATION

Two years of preparation enhanced by the team-building leadership of General Dwight D. Eisenhower led to unity of effort in the Normandy campaign.

Thanks to unremitting Allied air offensives, by the spring of 1944 air superiority had been achieved throughout the European theater of war. Allied maritime superiority was assured with victory in the Battle of the Atlantic. These preconditions allowed great synergy to emerge from the integration of air, land, sea, and special operations forces in Operation OVERLORD. Combined military deception operations reinforced this synergy by causing the Germans to focus defenses outside the Normandy invasion area.

From mid-April through June 1944 massive air bombardment interdicted railroads and bridges leading to the lodgement area. Special operations forces (US, United Kingdom (UK), Free French, and Belgian) operating with the French Resistance enhanced these operations; during and after D-day, naval gunfire contributed to the interdiction effort as well. During the night of 5 June, tactical airlift forces carried pathfinders and airborne forces to commence the airborne operations. These airborne landings served to confuse the enemy and block key causeways, road junctions, and bridges leading to the amphibious assault area.

Meanwhile, other Allied air forces screened the sea flanks of the English Channel for enemy submarines, and helped suppress the enemy surface naval threat by constant attacks on E-boat installations. On 6 June 1944, naval gunfire support (often directed by fast flying Royal Air Force Spitfires) proved indispensable to destroying German fortifications, troop concentrations, and land minefields. Simultaneously, underwater demolition teams comprised of Sailors and Army engineers cleared paths through the vast array of German obstacles blocking the seaward approaches. By D+12, over 2,700 ships and 1,000 transport aircraft had landed 692,000 troops, 95,000 vehicles, and 228,000 tons of supplies.

This effective joint and combined operation owed much to unity of command. Eisenhower's command structure, the beneficiary of Allied experiences in North Africa and the Mediterranean, included a deputy of another Service and nation; subordinate commands for air, land, and naval forces; and (after much dispute) what we would today call operational control over US and UK strategic air forces.[26]

This stood in sharp contrast to the fragmented German command structure. Von Rundstedt did not control naval and air forces in his theater, including paratroop, air defense, and coast artillery units. Nor did he control all land forces (for instance, he was unable to obtain permission on 6 June to counterattack with immediately available armored divisions).

JOINT CAMPAIGNING
in the
NORMANDY INVASION 1944
COMMAND:
Direction
Supreme Allied Commander
US Strat Air Force
UK Bomber Comm
NAVAL
(Ramsey)
LAND
(Montgomery)
AIR
(Leigh-Mallory)
INTERDICTION
LEGEND
Naval Gunfire Support
Underwater Demolition Teams
Amphibious Landings
Airborne Landings
UDT
U BOATS

In the Spring of 1944, as air operations in preparation for the Normandy invasion intensify, General Eisenhower decorates Colonel Don Blakeslee and Captain Don Gentile. "Ike" tells the 4th Fighter Group, "I feel a sense of humility being among a group of fighting men like this."

General Eisenhower salutes the quarterdeck on departure from destroyer USS Thompson (DD-627) to visit the Normandy beachhead, 25 June 1944.

General Eisenhower and General Sir Bernard Montgomery inspect troops during preparations for Operation OVERLORD, Spring 1944

SUPPORTING CAPABILITIES

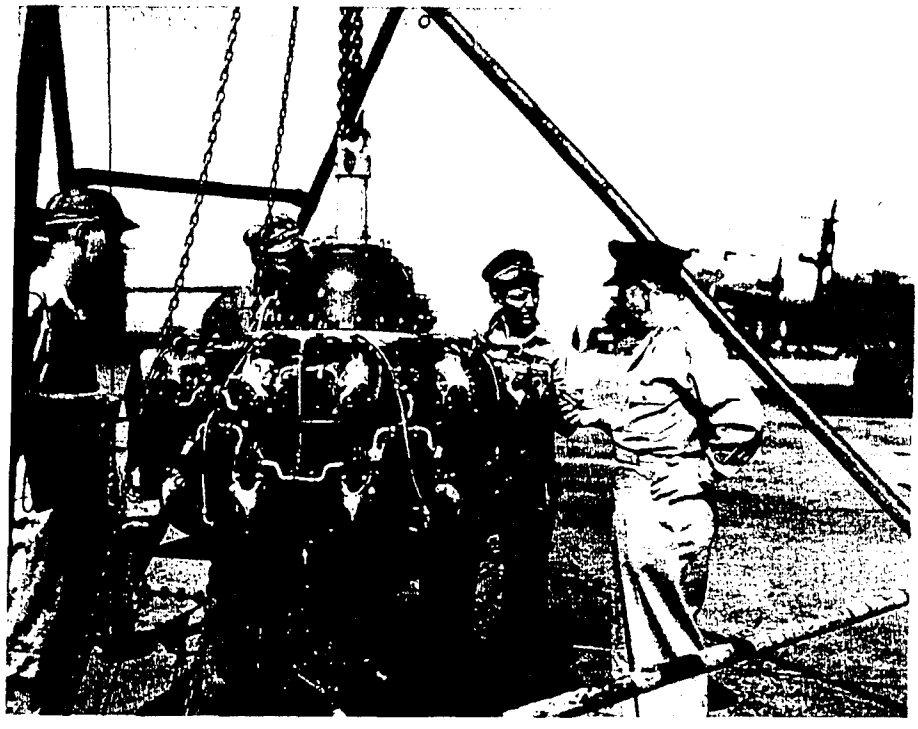
Joint campaigns rest upon certain foundations of the joint operational art. These foundations are the key collective capabilities of the Armed Forces of the United States to wage war: warfighting competencies that have particular relevance to the joint campaign and may play key roles in ensuring its success. From these capabilities the joint force commander chooses and applies those needed to prosecute the campaign.

- The joint campaign seeks to secure **air and maritime superiority** and **space control.** These are important for the effective projection of power. Furthermore, air and maritime superiority, and the enhanced support to terrestrial forces assured by space control, allow the joint force commander freedom of action to exploit the power of the joint force. For instance, air and maritime superiority are prerequisites to attaining a mobility differential over the enemy: first and foremost by protecting friendly mobility from the enemy and second by enabling joint interdiction to degrade the enemy's mobility.

"Under all circumstances, a decisive naval superiority is to be considered a fundamental principle, and the basis upon which all hope of success must ultimately depend."[27]

General George Washington, 1780

"Washington and Rochambeau Before the Trenches at Yorktown."



Lieutenant General George C. Kenney discusses Southwest Pacific aircraft maintenance with Staff Sergeant Clyde Sims and Technical Sergeants James E. Greman and Victor W. Cunningham, 28 October 1943. The General's B-17, "Sally," is in the background.

"I checked with General MacArthur.... discussed the air situation, and told him that I wanted to carry out one primary mission, which was to take out the Japanese air strength until we owned the air over New Guinea ....there was no use talking about playing across the street until we got the [enemy] off our front lawn ....General MacArthur....[said] I had carte blanche...."[28]

General George C. Kenney
General Kenney Reports

- The capability of the Armed Forces for **forcible entry** is an important weapon in the arsenal of the joint force commander. The primary modes for such entry are amphibious, airborne, and air assault operations, which provide joint force commanders with great potential to achieve strategic and operational leverage. As shown in the Gulf War, even the threat of a powerful and flexible forcible entry capability can exert a compelling influence upon the plans and operations of an opponent.

- **Transportation** enables the joint campaign to begin and continue. The projection of power relies upon the mobility inherent in air, naval, and land forces, supported by the defense transportation system. Transportation at the strategic and operational levels of war is a complex operation. It can best be served by a single, sound deployment concept that reflects en route and theater constraints and undergoes minimum rapid changes

(which may create unforeseen, cascading effects). Experience has shown that the cooperation of all supporting combatant commands and Services is required to ensure the efficient coordination and execution of a major deployment. Furthermore, transportation requires control of the necessary lines of communication. Without secure air, sea, space, and land lines of communication we cannot reliably move forces and materiel, reinforce forward-deployed forces, or sustain the campaign.

- **Direct attack of the enemy's strategic centers of gravity** (by air, missile, special operations, and other deep-ranging capabilities) is an integral part of the joint theater campaign.

- **Special operations** afford a flexible and precise tool upon which the joint campaign often relies heavily. In certain types of campaigns (for instance, those devoted to assisting in the internal defense of a foreign ally against an insurgency), special operations may assume a leading role. In all campaigns, joint force commanders should be alert to integrate special operations capabilities across the full range of operations. Special operations can greatly complicate the enemy's defensive plans, pose threats in widely dispersed areas, achieve deep penetration of enemy territory, and provide unique capabilities for certain high-leverage missions not achievable by other means.

- The joint campaign should fully **exploit the information differential,** that is, the superior access to and ability to effectively employ information on the strategic, operational and tactical situation which advanced US technologies provide our forces. Space power is crucial (but does not operate alone) in assisting the joint force to enjoy superiority in command, control, communications, intelligence, navigation, and information processing. Weather, mapping, charting, geodesy, oceanography, and terrain analysis are all areas where the joint force should achieve significant advantages. The use of Allied signals intelligence as a key to victory in the Battle of the Atlantic in World War II provides a good example of exploiting such an information differential.

- **Sustained action on land,** the capability provided by land power to the joint force commander, is often a key capability of the joint campaign. Indeed, depending on the objectives and nature of the campaign, many elements of the joint operations discussed above may be directed at enabling land power to be projected and directed against the foe. The ability to establish presence on the ground, postured to conduct prompt and sustained operations, can be fundamental to achieving the joint campaign's objectives and bringing it to a successful conclusion.

- Finally, **leverage among the forces** is the centerpiece of joint operational art. Force interactions can be described with respect to friendly forces and to enemy forces. Friendly relationships may be characterized as supported or supporting. Engagements with the enemy may be thought of as symmetric, if our force and the enemy force are similar (i.e., land versus land) or asymmetric, if the forces are dissimilar (i.e., air

versus sea, sea versus land). These interactions will be discussed in turn. In combination they illustrate the richness of relationships achievable with joint forces and the foundation for synergy that those relationships create.

SUPPORTED AND SUPPORTING RELATIONSHIPS WITHIN THE THEATER

Joint force commanders will often assign one of their components or subordinate joint forces as a supported activity for a certain purpose and time. In fulfilling that responsibility, the supported commanders must coordinate and synchronize the fighting activity of supporting commands in conjunction with their own forces under the overall supervision and authority of the joint force commander. More than one supported command may be designated simultaneously. For instance, a joint force special operations component may be supported for direct action missions, while a joint force maritime component is supported for sea control.

Supporting activities can take many forms as air, land, sea, special operations, and space forces support one another. For instance, close support occurs when the supporting force acts against targets or objectives that are sufficiently near the supported force to require detailed integration or coordination of the supporting attack with fire, movement, or other actions of the supported force. Examples include air support to land (close air support, tactical airlift); sea support to land (naval gunfire and missile support); and land support for air (suppression of enemy air defenses).

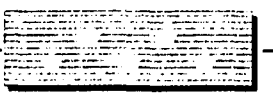
Other forms of support do not require coordination with fire and movement of the supported commander. Some examples are air support to sea (aerial sea mining, air delivery to ships); sea support to land (sea lift); sea support to air (sea delivery of fuel and ammunition); land support to air (seizure and protection of air bases, antimissile defense of air bases); land support to sea (seizure or protection of naval bases and choke points); and space support to air, land, and sea (force enhancement).

All these forms of support constitute important ways in which joint force commanders can obtain leverage from the interaction of their forces. Support relations require careful attention by joint force commanders, component commanders, and their staffs to integrate and harmonize.

SYMMETRIES AND ASYMMETRIES

Symmetric engagements are battles between similar forces where superior correlation of forces and technological advantage are important to ensure victory and minimize losses. Examples of symmetric conflict are land versus land (Meuse-Argonne in World War I); sea versus sea (the Battle of Jutland in World War I); air versus air (the Battle of Britain in World War II).

Asymmetric engagements are battles between dissimilar forces. These engagements can be extremely lethal, especially if the force being attacked is not ready to defend itself against the threat. An example is air versus land (such as the air attack of land targets in the following Korean War citation).



THE MEDAL OF HONOR
IS AWARDED TO
MAJOR LOUIS J. SEBILLE
UNITED STATES AIR FORCE

While flying close air support near Hanchang, Korea, on 5 August 1950. During the attack on a camouflaged area containing a concentration of enemy troops, artillery, and armored vehicles, Major Sebille's F-51 aircraft was severely damaged by antiaircraft fire. Although fully cognizant of the short period he could remain airborne, he deliberately ignored the possibility of survival by abandoning the aircraft or by crash landing and continuing his attack against the enemy forces threatening the security of friendly ground troops. In his determination to inflict maximum damage upon the enemy, Major Sebille again exposed himself to the intense fire of enemy gun batteries and dived on the target to his death.

Other examples are air versus sea (air attack of ships as in the Battle of the Bismarck Sea in 1943); sea and air versus land and air (strike operations and antiair warfare as in the raid on Libya in 1986); and land versus air and sea (denial of enemy air and naval bases as when Allied ground forces overran German air, missile, and naval bases along the Atlantic coast of Europe in 1944). Special operations may function in all these modes. The concept also extends to space forces (for example, space-based jamming of terrestrial communications or terrestrial attack against an enemy ground space installation). The Operation OVERLORD campaign discussed earlier in this chapter provides further examples of these asymmetries.

Joint operations should also shield the joint force against enemy asymmetric action. Protective action and posture, usually including joint offensive action, should be taken to defend our forces from potentially effective asymmetric attack. Antiterrorism is one example of friendly force protection. In another instance, to counter the Iraqi tactical ballistic missile threat during Operation DESERT STORM, the combination of space-based warning, antitactical missile defenses, friendly force protective measures, and active efforts to destroy SCUD launchers provided a full-dimensional joint shield.

Both types of engagements support the joint campaign. Symmetric actions are often delegated to component commands for planning and execution within the overall framework of the campaign. Asymmetric engagements may require greater supervision by the joint force headquarters and offer tremendous potential efficiencies. The properly functioning joint force is powerful in asymmetric attack, posing threats from a variety of directions with a broad range of weapon systems to stress the enemy's defenses. The land attack on a submarine pen, the sea-launched cruise missile strike or special operations force raid against a key air defense radar, the air strike against a vital ground transportation node—such asymmetric attacks afford devastating ways to attack or create enemy weaknesses and can avoid casualties and save resources.

Being alert to seizing or creating such opportunities is the business of the joint force as a whole, including not only joint force commanders and their staffs but their component commanders and staffs. "Cross-talk" and cross-fertilization of ideas often produce cheaper, better, and faster solutions to combat problems.

The key to the most productive integration of these supporting capabilities, and to the joint campaign as a whole, is **attitude.** In years past, the sea was a barrier to the Soldier and a highway to the Sailor; the different mediums of air, land, sea, and space were alien to one another. To the joint force team, **all forms of combat power present advantages for exploitation.**

APPENDIX A
AFTERWORD

A final example of a joint and multinational campaign of the Armed Forces of the United States further illustrates and summarizes the concepts presented in this publication: the Persian Gulf crisis and conflict, 1990-1991.

As we were reminded in Chapter I, the **purpose** for our existence as the Armed Forces of the United States demands unity in our effort. Operations during the Gulf War reflected this concept:

*"Winning our wars is the fundamental philosophical basis for anyone's military service to the country. I fought DESERT STORM based on this premise. I told my commanders and my staff, we are all serving a **unified** command."*

General H. Norman Schwarzkopf, USA

The conflict demonstrated the impact of the modern **environment.** The United States projected significant military power to a theater on the opposite side of the world, under difficult and varied geographic and climatic conditions. This first post-Cold War crisis was fast-paced and complex, confronting threats ranging from terrorism to very large conventional forces to weapons of mass destruction. **Technology** played a major role, yet the outcome resulted above all else from the superb morale and professionalism of **people**—American fighting men and women and the civilians who participated in and supported the effort and coalition partners from many different nations. Finally, **joint doctrine** helped our forces cope with the inevitable frictions of operations, providing the US Central Command (USCENTCOM) and the supporting combatant commands with a commonly understood doctrinal baseline that made development of teamwork and joint planning easier.

"We said at the beginning we would not depart from joint doctrine unless forced to do so, and we were never forced."

Lieutenant Colonel Jerry McAbee, USMC
USCENTCOM J3 Planner

At the strategic level, early and unambiguous aims and objectives fostered **unity of effort.** Three days after Iraq's occupation of Kuwait, the President established the basic national policy goals and national security strategy that governed our operations. Our coalition partners agreed with these goals, which never changed. National military strategy then focused our military power, both to shield the remainder of the Persian Gulf region from further aggression and to support the economic component of national security strategy with the maritime intercept of Iraq's seaborne trade. When the international community could not convince Iraq to withdraw from Kuwait, the defensive orientation of our national security policy and military strategy became offensive, again providing all the combatant commands and Services a framework for unity of effort.

In the theater of operations, this framework enabled **concentration** of force, numerically and in quality. Finally,

we wrested the strategic **initiative** from the enemy and preserved our **freedom of action.** First, a combination of the diplomatic, economic, informational, and military components of national security strategy built a strong coalition, enforced United Nations sanctions, and shielded the coalition's military buildup from attack. This buildup in turn allowed the initiative to be gained and maintained during subsequent offensive operations.

Deployment of American military power demonstrated **strategic agility.** The largest deployment of US forces since the Normandy invasion moved the equivalent of Oklahoma City halfway around the world in a few months and sustained those forces throughout their employment. Next, the thrust of operations was as simple as possible. Plans and orders emphasized **clear expression,** especially in view of the inherent complexities of coalition operations.

"In combined operations, keep it simple! The difficulties of translation and lack of Arabic language skills presented major obstacles. But if your English is simple and clear, then translation, both of language and operational concept, is much easier."

Rear Admiral Grant Sharp, USN
USCENTCOM J5

Finally, the concept of **centers of gravity** established a clear focus for operations and intelligence requirements. At both the strategic and operational levels, enemy centers of gravity were identified, analyzed, and confirmed and served as the basis for devising both national military and theater strategies.

In the realm of **command,** ample and effective liaison parties and teams served to keep communications constant and effective. MARCENT had liaison teams with CENTAF, including all seven CENTAF airborne command aircraft, ARCENT, NAVCENT, and the major coalition commands. (US Central Command components included US Army Forces Central Command (ARCENT), US Naval Forces Central Command (NAVCENT), US Air Forces Central Command (CENTAF), and US Marine Forces Central Command (MARCENT.)) The USCENTCOM special operations command had numerous liaison teams with coalition military forces, which played major roles in coordinating fire support and other aspects of military operations. ARCENT sent out several very large liaison teams, including teams to both major coalition groups of land forces. This partial listing of liaison activities was in addition to the "normal" liaison extended among and between the Armed Forces (for example, Air Naval Gunfire Liaison Company (ANGLICO) teams, Air Force tactical air control parties, Army ground liaison teams to the Air Force, and Navy liaison to the Air Force). In short, liaison teams played an important and effective role in reducing the frictions associated with a large and complex collection of forces.

"A few years ago I was taught that jointness basically meant getting everybody lined up shoulder to shoulder. Now I know that real jointness means attacking the right target at the right time with the right force."

Major Mark B. "Buck" Rogers, USAF
DESERT STORM Planner, CENTAF

The Operation DESERT STORM offensive campaign illustrated the richness of the joint operational art. The **commander's concept,** directed toward the accomplishment of strategic objectives and oriented on the enemy's centers of gravity, unified campaign planning.

The commander's concept drove the **sequenced and synchronized employment of all available land, sea, air, space and special operations forces.**

- The presence of air, land, and sea power meant that secure lines of communications were available to deploy unchallenged six and a half million tons of equipment and supplies and half a million men and women into airports and seaports a scant hundred miles from the enemy's forces, while Iraq was isolated from foreign support and resupply.

"There must be harmony among the Services. The CINC said, "I'm the concept man, you all work out the details." That was the key to the absolute trust and confidence we had in each other and to our extremely close teamwork."

Lieutenant General
John J. Yeosock,
USA
Commander ARCENT

- Nearly six weeks application of air power began on the night of 17 January 1991. The first shots of the war were sea-launched Tomahawk cruise missiles. Apache attack helicopters working in concert with special operations aviation helped disrupt the enemy air defense network. Special operations forces also reinforced the air offensive with direct action. These operations helped pave the way for coalition and US air strike packages of unprecedented complexity and lethality, ranging over enormous distances, orchestrated with split second timing and precision.

- As a first order of business, the campaign fought for and gained **air superiority** and **maritime superiority** as preconditions for further operations.

"Much will be said about the success of joint operations during DESERT SHIELD and DESERT STORM.... what carried the day was that we, the component commanders, shook hands and said, 'We're not going to screw this up, we're going to make it work.' And it did."

Vice Admiral
Stanley R. Arthur, USN
Commander NAVCENT

- The joint air offensive **directly attacked the enemy's strategic centers of gravity** from the outset of the war to its conclusion.

- Throughout the war, operations were **extended** throughout the enemy's territory, denying sanctuary or pause for recovery. Operations were supported by air attacks from the US European Command area of operations, including JTF PROVEN FORCE from the enemy's north and ship- and submarine-launched cruise missiles from the enemy's west.

- As air and maritime operations continued, they were sequenced and timed to lead to the air-land-sea culmination of the campaign. The presence of powerful coalition land forces helped pin down the enemy formations prior to the ground offensive, as did the leverage exerted on the enemy's seaward flank by US amphibious forces. Moreover, air operations and the deception plan blended to cover the preparation of

the ground offensive, enabling large-scale shifts of troops and supplies to occur undetected.

- All this was done under the umbrella of joint **space power,** orchestrated by the US Space Command, that helped provide intelligence, communications, friendly position tracking, early warning, and other capabilities.

- The joint **special operations** forces helped prepare the ground battlefield and reinforced and assisted coalition partners.

*"I built trust among my components because I trusted **them**...."*

General H. Norman Schwarzkopf, USA

- Finally, USCENTCOM launched **sustained operations on land.** ARCENT and coalition heavy, airborne, and air assault ground units and MARCENT forces on the littoral flank breached enemy fortifications and struck deep into enemy territory. Supporting these attacks were naval gunfire and an extraordinary focused application of air power. The joint campaign culminated in one of the swiftest ground offensives in history.

The full range of supporting relationships, the exploitation of the asymmetries available to the joint force, and the denial of these advantages to the enemy made Operation DESERT STORM a triumph of the joint operational art.

But perhaps the most striking feature of this campaign was the high degree of **teamwork**—building upon the basic values of American military service—achieved by USCINCCENT and his component commanders. Indeed there was a "team of teams," for the cohesion and efficiency in the components were blended into a higher order of trust and confidence in the joint team, providing a splendid example of the joint warfare of the Armed Forces of the United States.

"We had an unusually strong team, and trust was the key factor. Land, sea, air, and space were all sub-elements of the overall campaign; there was no room for prima donnas. You need people schooled in their own type of warfare, and then you need trust in each other."

Lieutenant General Charles A. Horner, USAF Commander CENTAF

"The notion of trust may convey even more than teamwork. It's critically important that you have trust, especially at the commander level. Issues are raised from time to time, but you can ask the questions that will defuse matters, because you're certain your fellow component commander wouldn't do or say that."

Lieutenant General Walter E. Boomer, USMC Commander MARCENT

APPENDIX B
CHAIRMAN OF THE JOINT CHIEFS OF STAFF PROFESSIONAL MILITARY READING LIST

As leaders of the Armed Forces of the United States progress in their development, they should expand their horizons to encompass familiarity with other Services and develop an informed perspective on joint warfare. The following readings complement, but do not replace the professional reading lists developed by each Service.

JOINT AND COMBINED OPERATIONS

Allard, C. Kenneth. *Command, Control, and the Common Defense*. New Haven: Yale University Press, 1990.

Buell, Thomas B. *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*. Annapolis, Maryland: US Naval Institute Press, 1987.

Eisenhower, Dwight D. *Crusade in Europe*. New York: Doubleday & Company, 1990.

Fall, Bernard B. *Street Without Joy*. New York: Schocken Books, 1972.

Handel, Michael I., ed. *Strategic and Operational Deception in the Second World War*. London and Totowa, New Jersey: Frank Cass, 1987.

Hastings, Max. *The Korean War*. New York: Simon and Schuster, 1988.

Johnson, Robert Erwin. *Guardians of the Sea: History of the U.S. Coast Guard 1915 to the Present*. Annapolis, Maryland: US Naval Institute Press, 1987.

Kam, Ephraim. *Surprise Attack: The Victim's Perspective*. Cambridge, Massachusetts: Harvard University Press, 1988.

Keegan, John. *The Face of Battle*. New York: Viking Press, 1983.

Larrabee, Eric. *Commander in Chief: Franklin Delano Roosevelt, His Lieutenants and Their War*. New York: Simon & Schuster, 1988.

Luongo, Kenneth N., and W. Thomas Wander, eds. *The Search for Security In Space*. Ithaca, New York: Cornell University Press, 1989.

Moorehead, Alan. *Gallipoli*. New York: Ballantine Books, 1985.

Slim, Sir William. *Defeat Into Victory*. London: Cassell and Company, 1956.

Summers, Harry G., Jr. *On Strategy: A Critical Analysis of the Vietnam War.* New York: Dell Publishing Company, 1984.

Tedder, Arthur (Lord). *With Prejudice.* Boston, Massachusetts: Little Brown and Company, 1966.

Weigley, Russell F. *The American Way of War: A History of United States Military Strategy and Policy.* Bloomington, Indiana: Indiana University Press, 1977.

CLASSICS ON DIPLOMACY AND FORCE

Clausewitz, Carl von. *On War.* Edited and translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1984.

Douhet, Giulio. *The Command of the Air.* Translated by Dino Ferrari. Salem, New Hampshire: Ayer Company, Publishers, 1972. Reprinted with editor's introduction by Office of Air Force History, Washington, DC, 1991; this edition recommended.

Machiavelli, Niccolo. *The Prince.* Translated by Peter E. Bondanella and Mark Musa. Oxford and New York: Oxford University Press, 1984.

Mahan, Alfred Thayer. *The Influence of Sea Power on History: 1660-1783.* Mineola, New York: Dover Publications, 1987.

Sun Tzu. *The Art of War.* Translated and with an Introduction by Samuel B. Griffith. Oxford and New York: Oxford University Press, 1963.

NATIONAL SECURITY STRATEGY

Howard, Michael, ed. *The Theory and Practice of War.* Bloomington, Indiana: Indiana University Press, 1975.

Ikle, Fred Charles. *Every War Must End.* New York: Columbia University Press, 1971.

Neustadt, Richard E., and Ernest R. May. *Thinking in Time: The Uses of History for Decision Makers.* New York: The Free Press, 1986.

Paret, Peter, ed. *Makers of Modern Strategy from Machiavelli to the Nuclear Age.* Princeton, New Jersey: Princeton University Press, 1986.

NATIONAL RESOURCES STRATEGY

Eccles, Henry E. *Logistics in the National Defense.* Westport, Connecticut: Greenwood Press, 1981.

Gansler, Jacques S. *Affording Defense.* Cambridge, Massachusetts: The MIT Press, 1991.

Gilpin, Robert. *The Political Economy of International Relations*. Princeton, New Jersey: Princeton University Press, 1987.

Van Creveld, Martin. *Supplying War: Logistics from Wallenstein to Patton*. Cambridge and New York: Cambridge University Press, 1977.

Intentionally Blank

APPENDIX C
ENDNOTES

1. Cited in Gerard Chaliand and Jean-Pierre Rageau, *A Strategic Atlas* (New York: Harper & Row, 1985), frontispiece.

2. Carl von Clausewitz, "Die wichtigsten Grundsaetze des Kriegfuehrens....," quoted in Peter Paret's introductory essay "The Genesis of *On War*" in Carl von Clausewitz, *On War*, translated by Peter Paret and Michael Howard (Princeton, New Jersey: Princeton University Press, 1976), 17.

3. Quoted in Air Force Manual 1-1, *Basic Doctrine* (Washington, DC: Department of the Air Force, 1984), frontispiece.

4. General George H. Decker, USA, speech given at the US Army Command and General Staff College, Fort Leavenworth, Kansas, 16 December 1960, quoted in Robert D. Heinl, Jr., *Dictionary of Military and Naval Quotations* (Annapolis, Maryland: Naval Institute Press, 1966), 95.

5. Captain (retired) Wayne P. Hughes, Jr., USN, *Fleet Tactics: Theory and Practice* (Annapolis, Maryland: Naval Institute Press, 1986), 28.

6. Fleet Marine Force Manual 1, *Warfighting* (Washington, DC: Department of the Navy, 1989), 43.

7. Quoted in Joint Pub 1, *Joint Warfare of the US Armed Forces* (Washington, DC 1991), frontispiece.

8. Rear Admiral Alfred Thayer Mahan, *The Gulf and Inland Waters* (New York: Charles Scribner's Sons, 1883), 20.

9. Map modeled after *The West Point Atlas of American Wars*, vol. 1 (New York: Praeger, 1959), Map 17. The cooperation of the Department of History, United States Military Academy, on this and other historical material is gratefully acknowledged.

10. William A. McFeely, *Grant: A Biography* (New York: W. W. Norton & Company, 1981), 97.

11. General U.S. Grant, *Personal Memoirs of U.S. Grant*, vol. 1 (New York: Webster, 1886), 574.

12. Interview with a member of the Joint Staff, 3 June 1991. This and all subsequent quotations from participants in Operations DESERT SHIELD and DESERT STORM cited in this publication are taken from interviews conducted with members of the Joint Staff, March-August 1991.

13. Quoted in Hughes, *Fleet Tactics*, 83.

14. Rear Admiral Samuel E. Morison, *The Struggle for Guadalcanal* (Boston: Atlantic Monthly Press, 1949),74.

15. Eric Larrabee, *Commander in Chief* (New York: Harper & Row, 1987), 261.

16. For a discussion of the interaction of air, land, and sea operations in these campaigns, see Lieutenant General (retired) Philip D. Shutler, USMC, "Thinking About Warfare," *Marine Corps Gazette*, November 1987, 18-26. This article and Lieutenant General Shutler's related work contain original thinking about the nature of joint operational art, including discussions on joint shielding actions and symmetrical and asymmetrical operations (see chapter IV).

17. Larrabee, *Commander in Chief*, 283.

18. Rear Admiral Henry Eccles, USN, interview by Colonel (retired) James E. Toth, USMC, 1982.

19. Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (London: Oxford University Press, 1963), 84.

20. Miyamoto Musashi, *A Book of Five Rings*, translated by Victor Harris (Woodstock, New York: The Overlook Press, 1982), 48.

21. Clausewitz, *On War*, 595-7.

22. Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms."

23. C. Kenneth Allard, *Command, Control, and the Common Defense* (New Haven: Yale University Press, 1990), 95-8.

24. General of the Army Dwight D. Eisenhower, "Command in War," speech given at the National War College, 30 October 1950.

25. G.A. Harrison, *Cross-Channel Attack* (Washington, DC: Office of the Chief of Military History, 1951), 242-3.

26. Command relations shown on map are as of 6 June 1944.

27. General George Washington, letter, 1780, quoted in Heinl, 288.

28. General George C. Kenney, *General Kenney Reports: A Personal History of the Pacific War* (New York: Duell, Sloan, and Pierce, 1949), 44-5. Reprinted by Office of Air Force History, Washington, DC, 1987.

Photographs and illustrations are from the National Archives, except: Yorktown map and Fort Hindman lithograph are from the Library of Congress; photo on page IV-6 of Eisenhower and Montgomery by Frank Schersel, photographer, Life Magazine© Time Warner, Inc.; painting of Washington and Rochambeau by Howard Pyle, courtesy of the Brown County Library, Green Bay, Wisconsin; and photo of Lieutenant General Kenney from the USAF Photo Collection, National Air and Space Museum. The cooperation of the above agencies and the George C. Marshall Foundation, the US Army Center of Military History, the Naval Historical Center, the Naval Imaging Command, the Office of Air Force History, and the Marine Corps Historical Center is gratefully acknowledged.

Intentionally Blank

APPENDIX D
ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center, Attn: Doctrine Division, Fenwick Road, Bldg 96, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent and Joint Staff doctrine sponsor for this publication is the Director for Command, Control, Communications, and Computer Systems, J-6.

3. Supersession

This publication supersedes Joint Pub 1, 11 November 1991, "Joint Warfare of the US Armed Forces."

4. Change Recommendations

a. Recommendations for urgent changes to this publication should be submitted:

TO: JOINT STAFF WASHINGTON DC//J7-JDD//

Routine changes should be submitted to the Director for Operational Plans and Interoperability (J-7), JDD, 7000 Joint Staff Pentagon, Washington, D.C. 20318-7000.

b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

c. Record of Changes:

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS

5. Distribution

a. Additional copies of this publication can be obtained through Service publication centers.

b. Only approved pubs and test pubs are releasable outside the combatant commands, Services, and Joint Staff. Release of any joint publication to foreign governments or foreign nationals must be requested through the local embassy (Defense Attache Office) to DIA Foreign Liaison Branch, C-AS1, Room 1A674, Pentagon, Washington D.C. 20301-7400.

c. Additional copies should be obtained from the Military Service assigned administrative support responsibility by DOD Directive 5100.3, 1 November 1988, "Support of the Headquarters of Unified, Specified, and Subordinate Joint Commands."

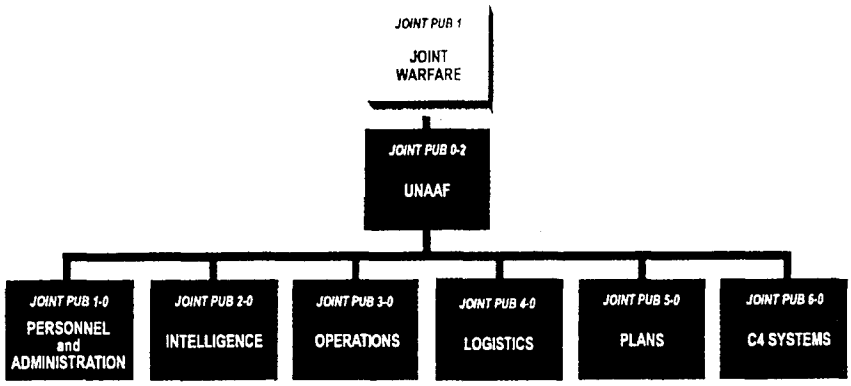
By Military Services:

Army:	US Army AG Publication Center 2800 Eastern Boulevard Baltimore, MD 21220-2898
Air Force:	Air Force Publications Distribution Center 2800 Eastern Boulevard Baltimore, MD 21220-2896
Navy:	CO, Navy Aviation Supply Office Distribution Division (Code 03443) 5801 Tabor Avenue Philadelphia, PA 19120-5000
Marine Corps:	Marine Corps Logistics Base Albany, GA 31704-5000
Coast Guard:	Coast Guard Headquarters, COMDT (G-REP) 2100 2nd Street, SW Washington, D.C. 20593-0001

d. Local reproduction is authorized and access to unclassified publications is unrestricted. However, access to and reproduction authorization for classified joint publications must be in accordance with DOD Regulation 5200.1-R.

U.S. GOVERNMENT PRINTING OFFICE: 1995—400-606

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Pub 1** is a capstone publication. The diagram below illustrates an overview of the development process: