

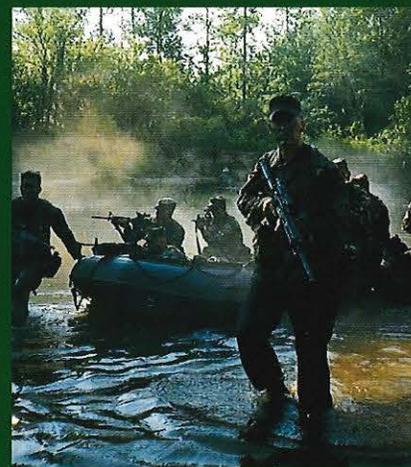


**Torchbearer  
National Security Report**

**Key Issues Relevant to**

***The U.S. Army's  
Strategic  
Imperatives***

**VOLUME II**

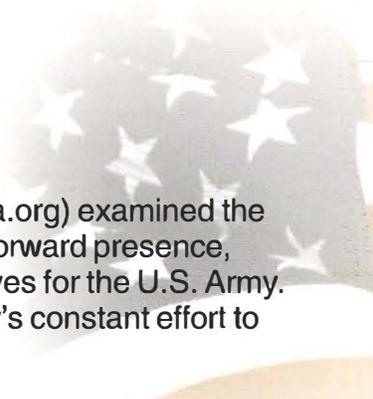


**An AUSA Torchbearer Issue  
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# Preface



Volume I of this Torchbearer series (September 2001, available at [www.ausa.org](http://www.ausa.org)) examined the enduring value of American landpower in a 21<sup>st</sup> century security environment. Forward presence, access assurance and power projection were highlighted as strategic imperatives for the U.S. Army. Here, in Volume II, the focus narrows to four specific issues that reflect the Army's constant effort to transform itself to meet America's changing security challenges.

This mission is a complex one. The U.S. Army must adapt to an ever-shifting international landscape replete with new challenges to America's security while remaining ready to meet more traditional threats to U.S. interests. Terrorism, weapons of mass destruction, and the spread of missile technology are all growing dangers that the Army is moving to address. At the same time, the Army must maintain forward presence in strategic regions to assure allies and deter potential enemies. The Army must also maintain well-trained forces in the United States to deploy in support of combatant commanders. For the Army, striking the right balance between creating new capabilities and maintaining a prudent mix of balanced and complementary military forces will be a key issue in the years ahead.

This selection of issue papers highlights programs and forces related to some of the most important strategic issues facing today's U.S. Army. The issues begin with an in-depth look at **U.S. Army Special Operations forces**—a critical weapon in the war on terrorism. Their impressive capabilities, ranging from psychological operations to unconventional warfare, are essential tools for meeting the challenge of terrorism worldwide. Army Special Operations forces and aviation assets are playing a critical role in Operation Enduring Freedom in Afghanistan. The U.S. Army provides more than 60 percent of the total Special Operations force.

The second issue paper examines the Army's concepts for future interaction between the **Comanche helicopter and unmanned aerial vehicles (UAVs)**. The paper highlights the Army's plan to tightly integrate manned platforms, such as the Comanche, and UAVs into a flexible and highly capable combat network.

The third paper provides an update on the **Ground-Based Midcourse Missile Defense System**, an Army program that is moving rapidly toward a critical homeland defense capability. The paper focuses on the 2004 test-bed infrastructure that will enable the challenging and realistic testing needed to develop a ballistic missile defense system.

Finally, the fourth issue paper focuses on a new and exciting Army asset: the **Theater Support Vessel (TSV)**. The TSV will provide the Army with a fast, shallow-draft, deployment and sustainment intratheater sea transport that will greatly expand the reach and flexibility of Army forces of the future.

Although these issue papers cover diverse topics, they carry one central message: The U.S. Army has transformed and will continue to transform to meet the threats of today and tomorrow. Across a full spectrum of troops, weapons and support systems, the Army is expanding its suite of capabilities to adapt to a rapidly changing world. These new capabilities will enhance America's security and move the Army toward a true full-spectrum force capable of fighting as a member of the joint warfighting team to meet a wide range of threats to American interests.

Contents	
Preface .....	2
Army Special Operations .....	3
Comanche + Unmanned Aerial Vehicles	5
Missile Defense .....	7
Theater Support Vessel .....	9
Torchbearer Message.....	11



### Army Special Operations Forces—An Essential Tool in the Fight Against Terrorism



U.S. Special Operations troops are showing their mettle in the war on terrorism. A relatively small force of highly trained men and women is showing that when given the right tools and mission, Special Operations troops can have the impact of a force many times their size. Within the Special Operations Command, U.S. Army Special Operations forces are playing a major role. According to General James L. Jones, Commandant of the U.S. Marine Corps, in an August 2002 interview, "The United States turned the tide of battle against the Taliban by inserting Army Green Berets, who quickly organized guerilla units and identified ground targets for U.S. fighters and bombers."

#### Army Special Operations Forces (SOF)—Who They Are

U.S. Army Special Operations Command at Fort Bragg, North Carolina, trains and equips roughly 25,000 Special Operations soldiers—about two-thirds of the total U.S. Special Operations force. The men and women of these units are the elite of the elite, chosen for their special skills, dedication and motivation. They are organized in several types of units:

##### Special Forces

U.S. Army Special Forces are organized into seven groups (five active duty and two National Guard), each focused on a particular region of the world. For example, the 10<sup>th</sup> Special Forces Group (active component) is deployed in the Republic of Georgia, and elements of the 19<sup>th</sup> Special Forces Group (National Guard) are operating in Afghanistan.

##### Rangers

The three battalions of U.S. Army Rangers making up the 75<sup>th</sup> Ranger Regiment are among the most highly lethal and well-trained light infantry in the world.

##### Special Operations Aviators

Special Operations pilots provide transport and fire support in addition to conducting their own raiding missions deep behind enemy lines. They are organized into the 160<sup>th</sup> Special Operations Aviation Regiment (SOAR).

##### Psychological Operations and Civil Affairs

Psychological Operations (PSYOP) forces include one active duty Army PSYOP group consisting of six battalions, and two U.S. Army Reserve PSYOP groups. Civil Affairs forces include one active duty Army Civil Affairs battalion and several Civil Affairs commands, brigades and battalions in the U.S. Army Reserve.

##### Special Operations Support Command (SOSCOM)

SOSCOM provides logistics, communications and other support to Special Operations forces worldwide.

##### John F. Kennedy Special Warfare Center and School

The JFK Center and School trains United States Special Operations Command (USSOCOM) Joint and Army Special Operations forces through development and evaluation of special operations concepts, doctrines and training.

**The U.S. Army provides more than 60 percent of the total Special Operations force.** The Army National Guard and Army Reserve play important roles in Army Special Operations:

- Army SOF Total: 24,700
- Active Duty 13,700
- Army National Guard 2,200
- Army Reserve 8,800



ISSUE 5: The U.S. Army's Role in Special Operations



# The U.S. Army's Role in Special Operations (continued)

## Army Special Operations Forces—Missions

Army Special Operations brings a wide array of capabilities to the counterterrorism fight:

**Unconventional Warfare.** Operating in 12-man "A-Teams," Army Special Forces soldiers work with indigenous military personnel. In peacetime, they conduct confidence-building exercises with friendly local forces, building key personal relationships along the way. In wartime, they provide training, fire support, advice and supplies to friendly local troops.

**Direct-Action Attacks.** Army Special Operations forces like the 75<sup>th</sup> Ranger Regiment can execute a variety of missions such as airfield seizures, ambushes and intelligence raids. Army Special Operations units can also conduct hostage rescue missions or raids to attack or capture enemy leaders.

**Civil Affairs Operations.** Civil Affairs units are also part of the Army Special Operations team. By working with local civil authorities, Civil Affairs soldiers lay the groundwork for postconflict recovery efforts as well as helping maintain support for U.S. troops during the conflict.

**Psychological Operations.** Psychological Operations is the art of influencing others to do things that support U.S. objectives. U.S. Army PSYOP forces speak foreign languages, understand customs and cultures, and develop and distribute materials such as leaflets, posters, radio and TV programs, and loudspeaker broadcasts.

**Other missions include special reconnaissance, foreign internal defense and information operations.**



## Army Special Operations Forces—Techniques

Army Special Operations forces have shown that they can have the impact of forces many times their size. They do this through a "force multiplier" effect that is felt in several ways:

### Special Operations Success Story: Uzbekistan

It is not a coincidence that Uzbekistan was one of the first nations to allow the United States to deploy troops on its soil to fight the war on terrorism. Beginning in the mid-1990s, Army Special Operations soldiers conducted a series of training missions and exchange programs with the Uzbek armed forces. Over time, these missions helped develop the trust and personal relationships needed to act quickly in a crisis. When a crisis finally struck, these personal and professional links to the Uzbek military proved invaluable. In addition, the strategic intelligence gained over the years by Army Special Forces missions to Uzbekistan helped pave the way for operations in Afghanistan.

**Building Relationships.** Long before conflicts occur, Special Operations soldiers are on the ground building personal relationships with local forces friendly to U.S. interests. When a conflict begins, these one-on-one relationships are invaluable tools to pave the way for coalition building and American military action.

**Assuring Access.** Army Special Operations forces are a key element in assuring future access. Before a conflict, their work with regional forces improves wartime coordination and improves the chances for U.S. access to friendly nations. During a conflict, their small unit size, low profile and stealthy techniques allow them to gain access to remote and hostile areas where U.S. interests are at risk.

**Assisting Local Forces.** Through unconventional warfare and foreign internal defense missions with local troops, Army Special Operations soldiers enhance the effectiveness of indigenous forces.

**Focusing Firepower.** Having eyes and ears on the ground greatly magnifies the impact of U.S. long-range firepower. This is accomplished through intelligence available only to troops on the ground who have sophisticated communications and targeting equipment.

**Strategic Reconnaissance.** During peacetime, Special Operations forces conduct strategic reconnaissance through engagement missions in many nations. When Special Operations forces deploy, they gain invaluable "on-the-ground" insight into the attitudes, beliefs and intentions of the local population. This is one kind of "human intelligence" that the United States needs to win the war against terrorism.

*U.S. Army Special Operations Forces—Leading the Way in the War on Terrorism*



### *RAH-66 Comanche + Unmanned Aerial Vehicles = The Army's One-Two Punch*

On the battlefield of the future, the RAH-66 Comanche helicopter and Unmanned Aerial Vehicles (UAVs) together will provide a quantum leap forward in reconnaissance and combat capabilities.

**Manned aviation provides the critical decisionmaking component for battlefield dominance.** The crew will maintain the digital information connection between the Comanche reconnaissance platform and the UAV's long-dwell, real-time tactical surveillance sensors.



*As we look [at the reconnaissance mission] in the next 10 to 12 years . . . we don't see a technological solution replacing a manned platform [to perform] aerial reconnaissance.*

MG John M. Curran, Commanding General,  
U.S. Army Aviation Center and Fort Rucker

### The UAV Contribution

UAVs serve as the forward-looking eyes of the force, linking pilots, ground troops and commanders with a common battlefield picture. They loiter over enemy areas at extended ranges, relieving pilots of protracted missions over unfriendly territory.

While current UAV technology faces limits in recognizing and identifying a target's details or battlefield context, future developments promise greater capabilities and increased deployments. When Comanche is added to the equation, combat resources are significantly improved for commanders, troops on the ground and aviation forces.

### Comanche's Contribution

**The RAH-66 has a low-observable design to reduce infrared, acoustic, radar and visual signatures.** The variable-load armament arrangements include missiles, 2.75 inch rockets and a Vulcan II 20mm Gatling gun. These assets, combined with Comanche's array of electronic intelligence, surveillance and reconnaissance (ISR) equipment, foster its role as a valuable source of real-time combat information and as a lethal fist delivering decisive results in future operations. This dual capability allows commanders and ground forces to rely on Comanche for eyes-on-the-target collaboration to provide a strategic battlefield view or a tactical, infantry squad overwatch and close-combat function. Comanche adds a new dimension to battlefield management.

Integrating forward sensors and precision munitions on a versatile, manned aircraft reduces the decision time between threat identification and reaction. **With swift judgment and flexible response options, pilots choose whether or not to engage an enemy decisively with joint offboard or onboard precision fires.** The range of solutions prevents the adversary from taking the initiative or exploiting a surprise advantage in combat.





## Battlefield Perspective

### Teaming on the Battlefield

The Comanche allows the crew to direct and manage the UAV from the cockpit while in flight. The result is that pilots can proceed into the battlefield with a timely and accurate understanding of what awaits them beyond their lines of sight. Comanche crews also have the capability to further investigate potential high-priority targets and clarify points of interest that UAVs may overlook. Without the “man in the loop” on location, controlling the direction and pace of a combat operation as it unfolds, the Comanche/UAV team loses its punch.



*Technology will undoubtedly reduce our combat workload, enhance our ability to see over the horizon and reduce the threat of casualties to our aircrews. Yet the ability of the human eye to see and brain to detect and discriminate [remains] better than any sensor.*

**BG Michael A. Vane,**  
Deputy Chief of Staff for Doctrine,  
U.S. Army Training and Doctrine Command

### The Human Factor

Whether by command direction or pilot determination, redirecting Comanche becomes more efficient because of integrated communications and sensors, formidable electronic and armament capabilities and a human at the controls, evaluating and adapting to battlefield demands. Comanche’s tactical and technological leaps hinge on the awareness, perspective and discriminating lethality only a man in the loop can provide.

### Combat Support

Together, Comanche’s and the UAVs’ reconnaissance capabilities eliminate unnecessary exposure and recognize and identify threats farther and faster than was possible with previous single platforms. In close combat, Comanche has the agility and firepower to quickly and efficiently destroy a wide range of threats to the soldier and

the force. Improved survivability applies not only to the Comanche system but also to troops on the ground facing a continuum of enemy capabilities in treacherous conditions, from urban areas to rugged mountain peaks. Comanche, piloted by combat arms-trained aviators and teamed with UAVs, provides the Army’s Objective Force tactical solutions and understanding of the situation as it unfolds.



*The Comanche/UAV Team—A Quantum Leap Forward  
in Reconnaissance and Combat Capabilities*





### Ground-based Midcourse Missile Defense— Continued Progress Toward a Critical Capability

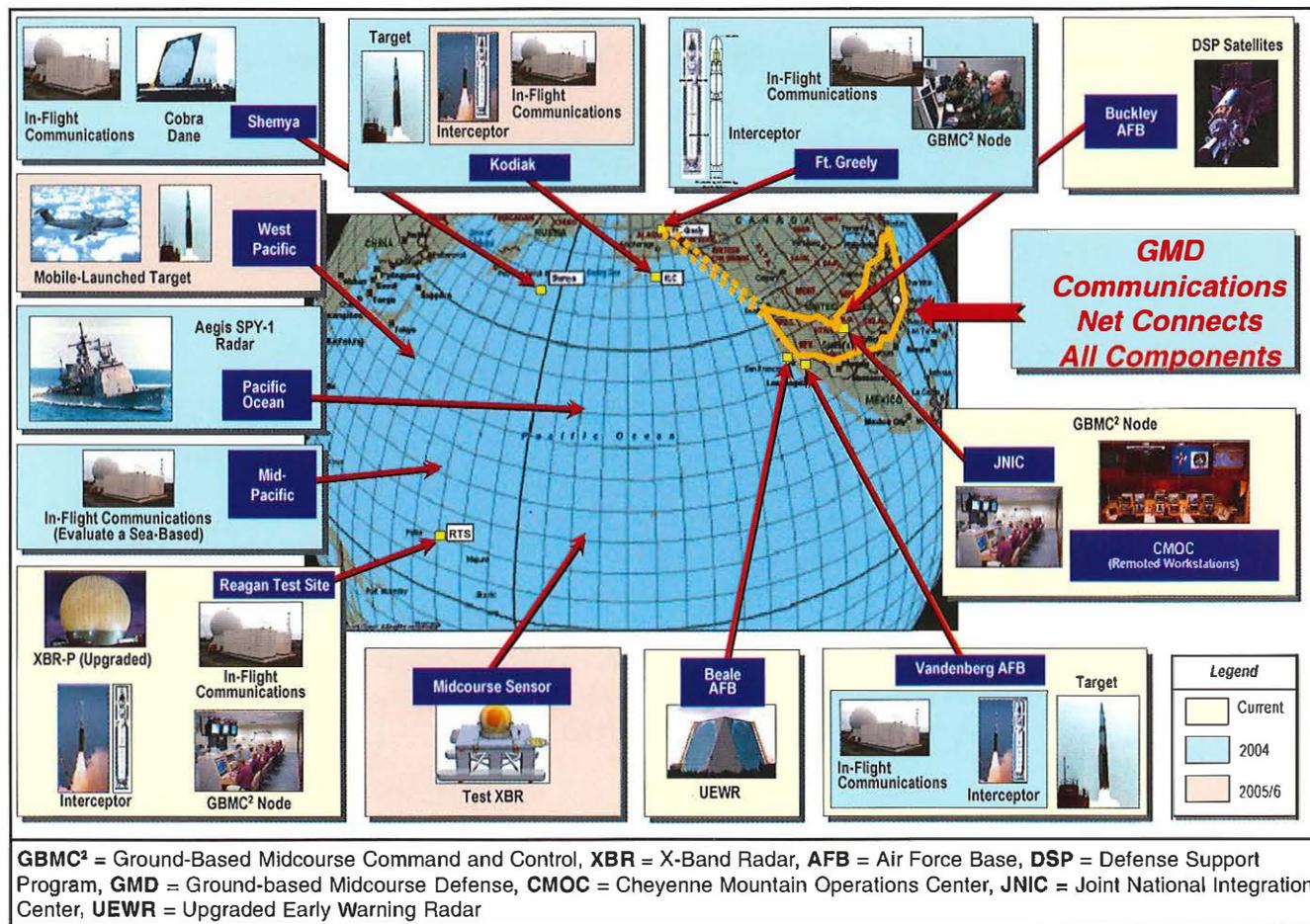
“Hitting a bullet with a bullet.” This phrase is often used to describe the difficulty of shooting down an incoming warhead from an intercontinental ballistic missile (ICBM). However, despite the significant technical challenges involved, the Army Ground-based Midcourse Defense (GMD) system is moving steadily toward achieving this critical capability. The GMD system is designed to detect, track and destroy enemy missiles and warheads before they hit their targets in the United States.

#### Continued Testing Success

Recently, the GMD program completed its **third successful flight test in a row** (now a total of four out of six successful tests), destroying a target missile in the outer atmosphere by hitting it with a precision-guided kill vehicle. With progressively more complex scenarios, these tests are designed to demonstrate that a “hit to kill” defense system is possible.

#### Coming Soon: The 2004 Test-Bed Architecture

The first step toward a fully capable midcourse defense system is further development of missile defense testing facilities. By 2004, the GMD program will complete building its “Block 04” test infrastructure that will allow for highly realistic and challenging system tests. This new integrated test bed will greatly enhance system development by allowing the program to test the GMD architecture against ever more challenging threat scenarios.



ISSUE 7: Ground-Based Midcourse Missile Defense



GMD is part of the larger program that is developing a layered missile defense system to defend the United States, allies and U.S. military forces abroad from a wide range of missile threats. The GMD system consists of a complex mix of interceptor missiles, radars, satellites and communications facilities, all working together to pull off this daunting technical challenge.

The Army GMD program is just one part of the overall missile defense system being aggressively developed by the newly formed Missile Defense Agency (MDA). The mission is simple—*defend America against ballistic missiles*. The entire system will consist of multiple antimissile technologies designed to destroy enemy missiles and warheads in all three phases of their flight: boost, midcourse and terminal.

The boost phase is the portion of a missile's flight in which it is thrusting to gain the acceleration needed to reach its target. This phase usually lasts 3-5 minutes. When the missile has completed firing its propulsion system, the longest part of its flight—the mid-course phase—begins. During this phase the missile is coasting, or freefalling, toward its target. This phase can last as long as 20 minutes in the case of ICBMs.

The final phase of a missile's flight is the terminal phase, when the missile's warhead reenters the earth's atmosphere. This phase lasts approximately 30 seconds for ICBM-class missiles.

*Early tests focused on technology development, demonstration and integration. . . . Now we are advancing, step-by-step, to more operationally realistic [tests] and more demanding scenarios.*

Lieutenant General Ronald Kadish, USAF  
Director of the Missile Defense Agency



### Ground-based Midcourse Missile Defense—The Road Ahead

The coming decade will be an exciting one for the entire missile defense program and the Ground-based Midcourse Missile Defense program in particular. Completion of the Block 04 test bed will lead to further development and eventual deployment of a highly effective layered missile defense system.

#### 2010 and Beyond

- Robust Radars, Interceptors, Sites
- Integrated Land/Sea/Space-Based
- Fully Mature, Layered Missile Defense System



#### 2004-2010

- Complete Operational Booster Development
- Upgraded Kill Vehicle
- New Test XBR Radar
- Complete Demo of Hit-To-Kill/Discrimination Capability
- Upgraded Test Bed



#### 2000-2004

- Build GMD Block 04 Test Bed
- Continue Robust Development
- Propose Production Alternatives



**Ground-based Midcourse Missile Defense—Setting the Stage for Further Success**



### Force Projection Capability for a Transforming Army

The Theater Support Vessel (TSV) is a vital part of the Army's plans for Transformation. This new high-speed vessel will greatly enhance intratheater deployment and logistics support for Army units worldwide. The TSV's planned capabilities—speed (over 40 knots), capacity (1,250 tons) and flexibility (shallow draft)—will provide the Army with a new and potent capability for rapidly responding to crisis situations anywhere in the world.

#### The Mission: Getting to the Fight

"Getting troops to the fight" is a simple idea but a complex and difficult mission to achieve. Today, the Army chiefly relies on airlift or large vessels to get where it needs to go. Both air and conventional sealift have limitations. Strategic airlift requires air superiority and reasonably good runways. Traditional sealift requires time and mature ports. In contrast, the TSV will be capable of using austere facilities to provide rapid and flexible intratheater transportation and support for U.S. Army troops and equipment.

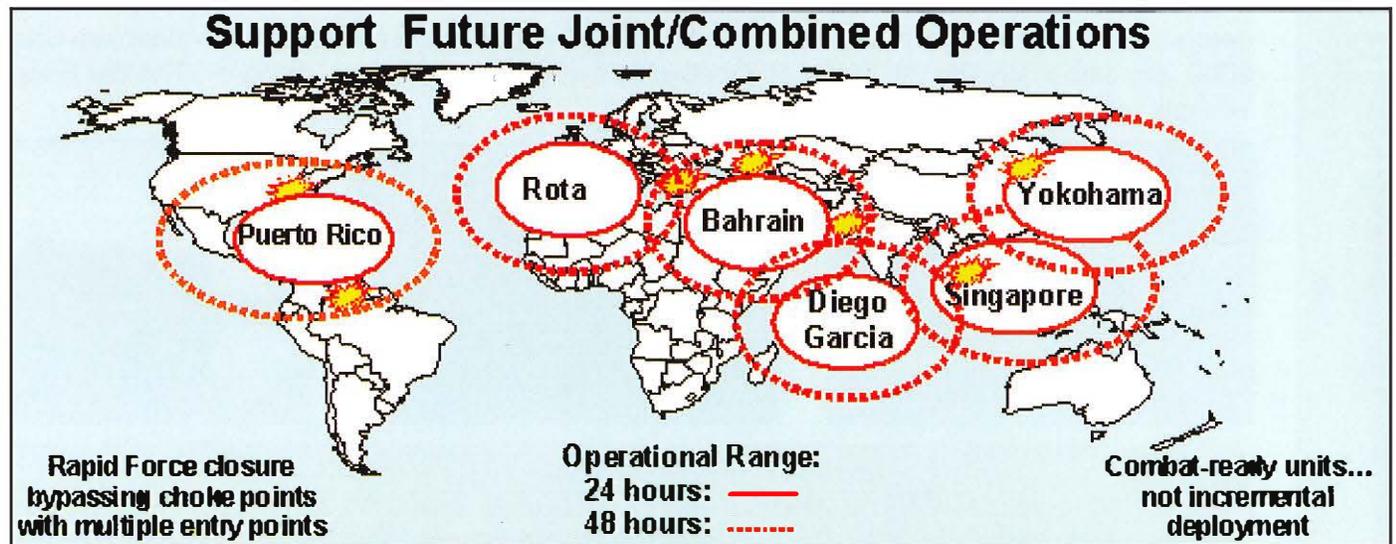
The TSV will provide:

- intratheater movement of combat-ready units and follow-on sustainment to coastal areas with limited port infrastructure;
- onboard joint interoperable command, communications and intelligence facilities (en route planning);
- 1,250 tons of carrying capacity;
- 40+ knot speed (current logistics support vessel speed is 10 knots);
- 4,700-mile range;
- the ability to transport troops and equipment together;
- increased number of usable ports (by a factor of five);
- the ability to offset airlift shortages.



#### Enabling Access Assurance for Army Forces

The Theater Support Vessel's ability to rapidly transport combat-ready troops and equipment to a wide range of austere locations will make it a highly valuable asset to theater commanders. Forward-stationed TSVs will allow commanders to bypass large ports, which are likely targets of enemy terrorist or long-range missile attack.



ISSUE 8: Theater Support Vessel

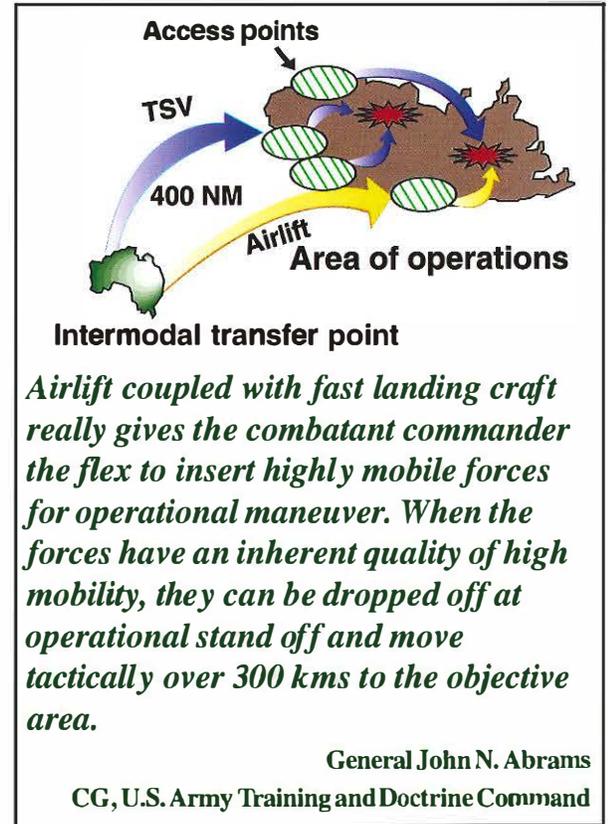


## The TSV—Supporting the Legacy Force, Ready for the Interim Force, Enabling the Objective Force

The Theater Support Vessel will provide important capabilities as the Army transforms. The Legacy, Interim and Objective Forces will be a part of the Army for many years, and the Theater Support Vessel can support them all. A 1,250 ton-capacity TSV fleet will be capable of rapidly deploying powerful elements of all three kinds of forces.

### The scenario: 400-mile deployment from an intermediate support base to the operational area

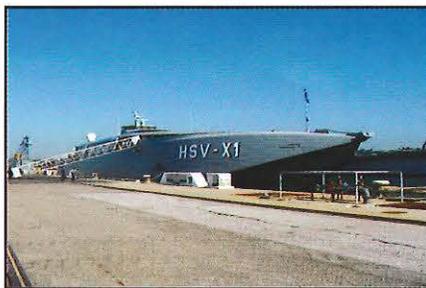
	12 TSVs 2 sorties each = 480 C-17 sorties 47 hours' transit
Legacy Force Brigade (28,913 tons)	
	12 TSVs 1 sortie each = 254 C-17 sorties 10 hours' transit
Stryker Brigade (12,751 tons)	
	12 TSVs 1 sortie each = 613 C-130 sorties 10 hours' transit
Objective Brigade (12,000 tons)	or 239 C-17 sorties



- Troops and equipment moving together
- En route mission planning and rehearsal
- Reduced logistics footprint
- Access to austere shallow-draft ports
- Multiple-point simultaneous entry

### The Joint Venture—Future Capabilities Demonstration

The Army, Navy and Marine Corps have leased the Australian fast sealift catamaran *Joint Venture* as a demonstration vessel. Joint exercises with this single vessel, such as the recent Millennium Challenge 2002, are demonstrating the range of capabilities that a fleet of similarly designed Theater Support Vessels will provide the joint force commander.



*The Theater Support Vessel—  
Rapid Deployment for the Army of Today and Tomorrow*



# Torchbearer Message

AUSA stands firm in the belief that an effective landpower force is an essential part of a balanced and complementary set of military capabilities necessary to guarantee the national security interests of the United States. The Army is not standing still in the midst of rapid changes in the security environment and military technology. As always, the Army must transform to meet today's challenges while simultaneously preparing for the future.

The four issues highlighted here represent some of the Army's most critical efforts to adapt itself to the 21<sup>st</sup> century security environment, where it will operate as a member of the joint warfighting team. These diverse efforts are all focused on one goal: meeting challenges to America's security at home and abroad. More effective Special Operations, manned and unmanned aviation systems, missile defense and theater transport capabilities will provide the nation a wider range of options to meet both today's threats and those in the years ahead.

- Forward presence and "boots on the ground" still count. U.S. Army Special Operations troops are fighting on the forefront of the war on terrorism. Before a conflict, their work with regional forces improves wartime coordination through their efforts to build relationships with key allies in strategic locations. During a conflict, their small unit size, low profile and stealthy techniques allow them to gain access to remote and hostile areas where U.S. interests are at risk. Army Special Operations forces and aviation assets are playing a critical role in Operation Enduring Freedom in Afghanistan. The U.S. Army provides more than 60 percent of the total Special Operations force.
- Despite the rapid advances in unmanned platforms, a mix of manned and unmanned aviation platforms will create a more capable and flexible combat network than is provided by UAVs alone. Keeping a man in the loop will ensure that the Army gets the most out of all of its aviation platforms. Manned aviation provides the critical decisionmaking component for battlefield dominance.
- The proliferation of missile and weapons of mass destruction (WMD) technology demands an aggressive effort to meet this threat. The U.S. Army's ground-based midcourse missile defense program is a critical part of a comprehensive homeland defense system. The next step on this path is development of the "Block 04" testing infrastructure that will allow for challenging and realistic evaluation of this vital part of the missile defense system of the next decade.
- The Theater Support Vessel will be a critical capability for the future Army. Its combination of speed, capacity and shallow draft will allow the Army to deploy and sustain combat forces in a much more flexible manner than is possible today in many regions of the world. The TSV's ability to rapidly transport combat-ready troops and equipment to a wide range of austere locations will make it a highly valuable asset to theater commanders.

*America's security needs have changed  
and the Army has changed with them.*



*A potent landpower force . . .  
an essential part of a balanced and complementary set  
of military capabilities necessary to ensure  
the national security interests of the United States.*

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**Institute of Land Warfare  
Association of the United States Army**  
2425 Wilson Boulevard, Arlington, Virginia 22201-3385  
800-336-4570 [www.ausa.org](http://www.ausa.org)