

Torchbearer
National Security Report



*Strategic Mobility:
Enabling Global Responsiveness for
America's Force of Decisive Action*



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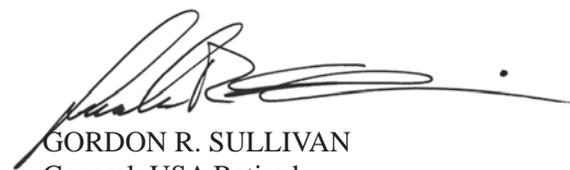


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In the 1990s, the military and, in particular, the Army’s senior leadership knew they needed to create new capabilities as they strived to anticipate (rather than merely respond to) the evolving strategic environment. That environment was one of uncertainty, failed states and rising international terrorism. Strategic responsiveness—the ability to deliver military capability promptly to the point where it is needed—became a national imperative. In fact, the Army conducted 35 deployments from 1989 to 2000.

In this second decade of the 21st century, there is no “strategic pause” on the horizon: Islamic fundamentalism, Iran and its proxies, Israeli–Palestinian disputes, etc., will keep the United States (and especially its land forces) engaged in the Middle East for the foreseeable future—even as the Army’s Asia–Pacific role draws more attention. Landpower is evolving from a forward-stationed to a United States-based power-projection force with regionally aligned expeditionary forces. The availability of intermediate staging bases (such as those we enjoyed during operations in Iraq and Afghanistan) cannot be assumed; future challenges will demand transformational new capabilities to ensure that ready forces can move the last tactical mile, even in harsh environments. Moreover, key enabling capabilities such as ammunition distribution at various ports are critical for rapidly projecting power. Strong and sustained military relationships with allies and partners are required to ensure that our Army can gain future access when needed. Strategic mobility enables the joint force to protect America’s vital interests around the globe, and its deterrent effect is part of our adversaries’ calculations.

In this latest installment of AUSA’s signature Torchbearer series, we explore the future of the strategic responsiveness/mobility challenge. We discuss the necessity of strategic landpower (Army, Marines and special operations forces), the status of the nation’s existing fleet of strategic-lift platforms and the human dimension of readiness to conduct any mission along the spectrum of conflict. We describe how Army doctrine and joint thinking have already been developed to cope with the volatile nature of this century’s diverse security challenges and take a look at how the Army is working to bridge existing mobility capability gaps until new investments and technologies can be developed and implemented. Finally, we detail some of the transformative efforts that are necessary to enable the joint force to fulfill the nation’s high expectations in accordance with the latest defense strategic guidance. We hope this report is a useful and informative resource and that you will continue to look to AUSA for insightful and credible analysis of contemporary national security issues.



GORDON R. SULLIVAN
General, USA Retired
President, AUSA

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Executive Summary

[T]o credibly deter potential adversaries and to prevent them from achieving their objectives, the United States must maintain its ability to project power in areas in which our access and freedom to operate are challenged. . . . Accordingly, the U.S. military will invest as required to ensure its ability to operate effectively in anti-access and area-denial (A2/AD) environments.

Defense Strategic Guidance
January 2012¹

America depends heavily upon its capability to deliver strategic landpower (Army, Marines and special operations forces) whenever and wherever it is required and in sufficient quantity and quality to influence the human domain—those factors that affect leaders' strategic decisions. In particular, the vital national interests of the United States demand an Army that remains manned, equipped, trained and ready to conduct expeditionary operations anywhere on the globe. Therefore, the joint force requires access to a range of flexible strategic-lift capabilities to ensure that it can meet the nation's expectations.

The campaign to defend allies and expel Iraqi forces from Kuwait in Operations Desert Shield/Desert Storm was an overwhelming success, but it was also a revealing moment for America's expeditionary military. The many months required to build up personnel and supplies before the campaign began made it clear that post-Cold War security challenges would require vastly improved rapid-deployment capability and strategy. Congress responded by making a considerable investment during the 1990s to improve power-projection infrastructure and to increase strategic airlift, sealift and prepositioned equipment. However, the nation's capacity for strategic and operational lift has changed very little since then. Long-term commitments of ground forces in Afghanistan and Iraq required that the Army adopt a rotational force-generation cycle through intermediate staging bases to ensure that Soldiers were ready to achieve their missions in those places. As a result, the Army and its joint partners must now devote greater attention to the readiness and mission command requirements to conduct very short-notice, rapid deployments of large formations in response to unforeseen contingencies.

The aforementioned appropriation totaled nearly \$50 billion over several years and funded several necessary initiatives that significantly improved the deployability of strategic landpower. These initiatives fell under four major categories:

- **Airlift.** The capability to deliver operationally significant numbers of ready personnel and/or heavy combat equipment by air constitutes one of the joint force's speediest strategic-response options. It is indispensable for missions such as forced entry at the outset of operations in contested areas, sustainment of operations in austere locations, humanitarian assistance and disaster relief. The nation's dedicated strategic airlift fleet consists of approximately 222 C-17 Globemaster III and 95 C-5 Galaxy cargo aircraft that can carry Soldiers, supplies and even heavy vehicles around the world.
- **Sealift.** The vast majority of military cargo sent overseas travels aboard the U.S. Navy's 26 dedicated sealift vessels or the Maritime Administration's 46 ready reserve ships. Among these are relatively small, limited-range High-Speed Vessels that feature top speeds of as much as 35 knots and shallow drafts to enable operations in austere or degraded port environments. Other key assets include large, medium-speed, roll-on/roll-off ships designed to carry vehicles in a ready state to developed deepwater ports. It is imperative that there be a balance between heavy lifting and shallow-draft capabilities.
- **Army Prepositioned Stocks.** The Army maintains five large sets of supplies both ashore and afloat to help make equipment and sustainment stocks more readily available far from the United States. These consist of a

¹ Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, January 2012, p. 4, http://www.defense.gov/news/Defense_Strategic_Guidance.pdf.



wide variety of versatile payloads tailored to the unique security requirements of the regions in which they are stationed; for example, combat vehicles comprise a substantial percentage of stocks maintained in Europe and Asia. The Army is also developing a specialized humanitarian assistance/disaster relief (HA/DR) set for Asia and considering HA/DR prepositioned applications for other geographic combatant commanders as well.

- **Power-projection infrastructure.** To improve the flow of people, equipment and supplies from the United States to points of embarkation, Congress also invested nearly \$1 billion during the late 1990s enhancing the nation's power-projection platforms—including dozens of installations, road networks, railroads, airfields, strategic seaports, ammunition plants and depots.

Although these existing strategic-lift platforms provide some impressive capabilities—and outperform other nations' expeditionary capability—they also have significant limitations. Since 2001, about a third of the airlift platforms have been engaged in support of overseas operations on any given day, putting significant wear on the aircraft and reducing their availability for contingencies. The highly capable C-5s have been out of production for many years already, and budget constraints have compelled proposals to cut the inventory by almost half. The workhorse cargo ships rely upon the availability of developed ports at both ends of their journey and are therefore vulnerable to adversaries' anti-access/area-denial strategies. Prepositioned stocks are increasingly vulnerable to adversaries' strike capabilities as well. And the nation's power-projection infrastructure has been chronically underfunded for most of the past decade.

The joint force has evolved its doctrine to meet the challenges of the future. For example, the *Army Capstone Concept* now identifies strategic mobility as a core operational function and force projection as a major pillar of mission command—an important philosophical and cultural step forward. Similarly, the *Capstone Concept for Joint Operations* focuses on initiatives such as enhanced synchronization of global distribution, operations in degraded environments and new intelligence analysis capability to better enable rapid response. Unfortunately, the Department of Defense's (DoD's) most recent analysis of its strategy and resources for conducting strategic lift is not yet matched to emerging doctrine and lessons about future conflict. As a result, the nation's current mobility solution set satisfies current scenarios but does not align with direction and doctrine for the future.

Because of the proliferation of anti-access/area-denial strategies and the predictability of force flow through strategic chokepoints—thereby rendering yesterday's deployment paradigm obsolete—DoD must provide a credible and specific strategic mobility study that establishes clear guidance for the services as to the requirements for the future force. It is also time to develop and field transformational lift platforms that can deliver forces and sustainment into unimproved or austere locations and despite opposition; future challenges will demand transformational new capabilities to ensure that ready forces can move the last tactical mile, even in harsh environments. Future security challenges will require that the joint force be ready to conduct full-spectrum operations as soon as possible at the point of debarkation, but the nation's strategic mobility capabilities are not yet prepared for this challenge. The very culture of American ground-force deployment must shift to achieve a new paradigm in which the port of embarkation in the continental United States is understood to be the line of departure for ready forces. Timely, predictable and adequate investment in strategic mobility is a national imperative for the Joint Force of 2020.



Strategic Mobility: Enabling Global Responsiveness for America's Force of Decisive Action

It is imperative that we be responsive to combatant commanders as part of the Joint Force. We do this by rapidly dominating any operational environment and providing decisive results across a full range of missions.

General Raymond T. Odierno
Chief of Staff, Army
January 2012²

Introduction

The U.S. defense strategic guidance of January 2012 outlines for America's armed forces 10 primary missions which, when fully executed, serve to protect and defend the nation's vital interests worldwide.³ These missions range from countering terrorism, deterring and defeating aggression and projecting power, to defending the homeland and conducting humanitarian and disaster relief, among others. Inherent in these missions is the ability to influence human activity and the environments in which that activity occurs—for armed conflict is a clash of interests between or among organized groups, each attempting to impose its will on the opposition. U.S. joint capability—landpower, seapower, airpower, space and cyber—is strategically deployed and employed to influence that human activity and impact strategic objectives.

The U.S. Army, by its authority in Title 10, U.S. Code, is the nation's principal land force. Soldiers, in combination with Marines and special operations forces (SOF), form the basis for strategic landpower—the application of power toward achieving overarching national or multinational (alliance or coalition) security objectives and guidance for a given military campaign or operation.⁴ Just as seapower and airpower provide unique capabilities to the joint force, so too does strategic landpower through its conduct of prompt and sustained operations on land. Notwithstanding, the entire joint force, but especially those landpower forces, requires sufficient strategic mobility assets—airlift,



sealift, prepositioned equipment—to enable accomplishment of the primary missions. Strategic responsiveness is an inherently joint concept: strategic landpower moves to a site of national interest to take decisive action enabled by air and naval support. As the speed of information sharing and technology proliferation continues to increase, the speed with which the nation delivers the right forces in support of its vital interests must keep pace.

It is highly likely that the U.S. military will be called upon again in the near future to protect and defend the nation. The potential sources and locations of conflict are nearly limitless—bloody civil war in Syria, simmering discord in Africa, nuclear-armed rogues in North Korea, nuclear-seeking rogues in Iran and countless others. When conflict arises, a favorable outcome for the United

² General Raymond T. Odierno, "Marching Orders," January 2012, <http://usarmy.vo.llnwd.net/e2/c/downloads/234190.pdf>.

³ Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, January 2012, http://www.defense.gov/news/Defense_Strategic_Guidance.pdf.

⁴ Strategic Landpower Task Force, "Strategic Landpower: Winning the Clash of Wills," white paper, 6 May 2013, http://www.arcic.army.mil/app_Documents/Strategic-Landpower-White-Paper-06MAY2013.pdf.



States relies on the timely deployment and employment of a fully integrated joint force. Strategic success is not a function of enemy units eliminated or targets destroyed; instead, a favorable outcome for the United States rests on winning the contest of wills with the adversary. To do so requires strategic mobility assets in sufficient number and quality either to deter adversaries or, when necessary, to deploy and enable the joint force to accomplish its objectives. Strategic mobility also requires sustained military relationships with allies and partners who help provide access when possible.

Although the nation's strategic mobility assets are impressive, forward deployed forces are few; for example, the Army has only three brigade combat teams (BCTs) that reside outside of the United States (one each in Korea, Germany and Italy). Moreover, existing mobility assets have reached the upper limits of their capability and America's enemies will seek to exploit such a limitation. The Joint Staff has developed sound strategy and doctrine, based on the new reality, to guide and shape the transformation of America's mobility resources. Now is the time to develop breakthrough capabilities that will help to overcome adversaries' anti-access strategies and enable the Army to better prevent conflict through improved access to the battlefield; to better shape the environment through improved capability to influence others and build partner capacity; and to more decisively win the nation's wars when called upon.

Background

The most recent significant moment in the evolution of the nation's capacity for strategic mobility—as well as the last significant investment in developing new capability—occurred approximately 20 years ago in the wake of Operation Desert Storm. In 1990 and 1991, it required nearly six months to build sufficient combat power and sustainment stocks before the ground war to expel Iraqi forces from Kuwait could begin. Even though U.S. and coalition forces won that war decisively, it was apparent even then that the nation assumed strategic risk from the long lead time required to prepare, deploy and assemble capable ground forces—a vulnerability that was also evident to the adversaries.

Subsequently, the Army developed an improved deployment strategy. This strategy was informed by the findings of a mobility requirements study, a follow-on "Bottom-Up Review" and, later, the 1997 Quadrennial

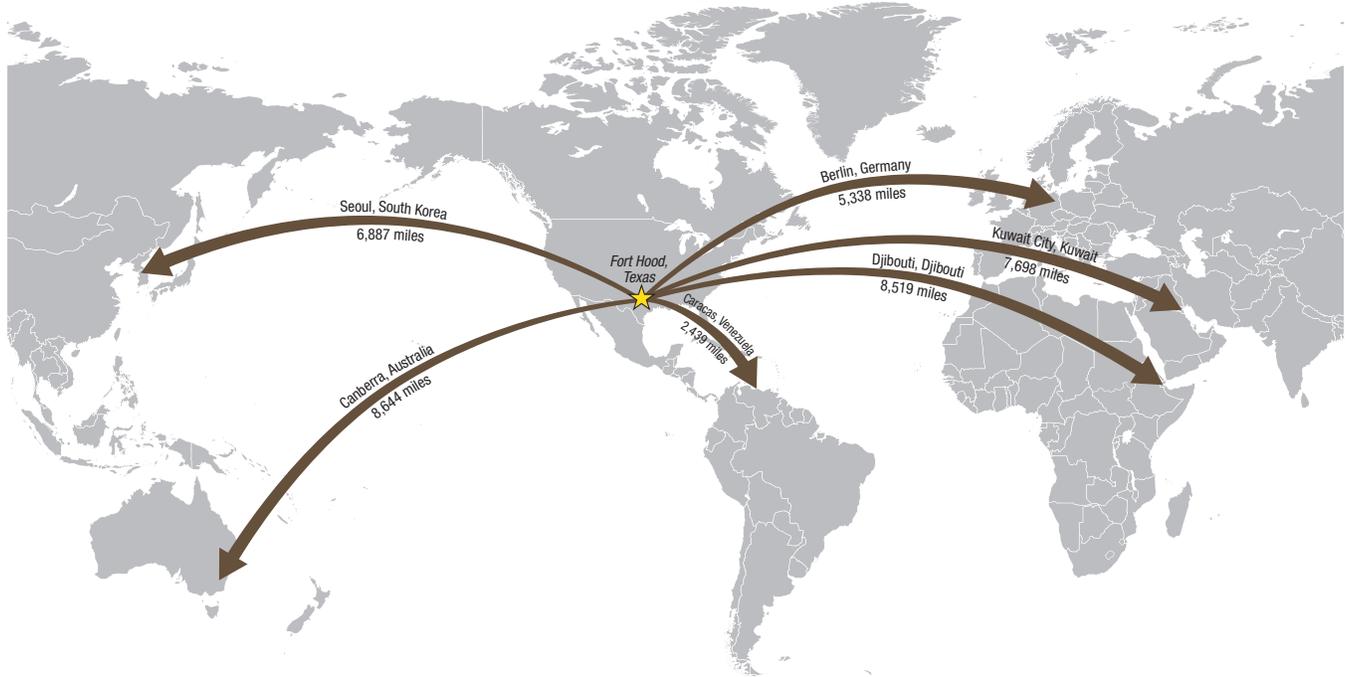
Defense Review (which helped codify a force-planning construct based on deterring or defeating adversaries simultaneously in two major theaters). The new deployment strategy was to develop the capability to deploy a five-division corps with combat service support units within 75 days of the emergence of a crisis. Such a response force was to be supplemented with a heavy brigade and its supplies prepositioned afloat. The entire contingency force was to be tailorable to conform to the requirements of the geographic combatant commander and fully sustainable once inserted into a theater of operations.

Given the substantial resource implications of what was to be a major departure from Cold War-era strategy and plans, Congress responded by making a considerable investment during the 1990s to improve deployment-related infrastructure and to increase strategic airlift, sealift and prepositioned equipment across the joint force. Although this investment helped, the nation's capacity for strategic and operational lift has changed very little in the decades since then; as a result, the capability to project strategic landpower has atrophied in some critical ways.

Much of the decline in the skill set required to conduct deployment operations is a natural consequence of the factors that characterized the nation's major wars in Afghanistan and Iraq. For example, deployments over the past 10 years or so have generally been rotational in nature—executed within the structure created by an Army Force Generation process that guaranteed the provision of fully trained and ready Soldiers to the fight—with relatively long lead times that provided for considerable planning and preparation time to confront a known mission. Forces bound for Iraq or Afghanistan often relied on taking possession of equipment (particularly large ground vehicles) already present in the theater instead of deploying from home station with their own organic heavy vehicles and equipment. This procedure often made sense for the purpose of easing logistical expenses but also came at a cost to those units' readiness. In many instances, these forces had the advantage of using American-built infrastructure erected and improved over a decade to deploy and employ servicemembers and their equipment—not to mention the assistance of significant contractor support that was also augmented during the same period.



Projecting Strategic Landpower



Necessarily deemphasized in these environments was the Army's ability to conduct very short-notice, rapid deployment of large formations in response to unforeseen contingencies.

Even though the reasons for this atrophy in capability are understood, the need for rapid force projection is only going to become more persistent in the uncertain future. Soldiers and their joint partners need the training to be prepared to meet rapidly emerging contingencies, the infrastructure to enable agile movement and the availability of a range of airlift, sealift and prepositioned stocks to achieve national objectives. Strategic mobility is a national imperative that demands significant reinvestment.

Understanding the Challenge

To understand the factors that influence the ability to project land forces rapidly to the point of need and the requirements for change, it is first necessary to think through the numerous steps that constitute any unit's deployment in response to a contingency. In fact, deployment of a joint force—getting it to the place where it is needed in a state of readiness to perform the required task—is a process of complex, interrelated actions that must be coordinated and closely synchronized.

To ensure a successful deployment, all Army commands (from both the generating and operating forces) are involved and unique skill sets (e.g., early-entry port operators) are required. For an Army unit—regardless of its size—the deployment process usually comprises:

- training for deployment and ensuring that Soldiers (and their families) are ready;
- preparing for planned requirements in support of a known mission while also preparing for the possibility that an unknown requirement could arise;
- organizing, loading and staging equipment and vehicles;
- preparing hazardous materials for shipment;
- packing containers and building pallets of supplies;
- arranging convoys and loading railcars and commercial trucks to move equipment to seaports of embarkation and then onto ships;
- loading personnel and accompanying equipment onto aircraft timed to meet ships as they arrive in theater;
- journeying from ports of embarkation to ports of debarkation;



- unloading, organizing, staging and moving forward to the final destination; and
- maintaining visibility and accountability of equipment and personnel throughout the process.

Usually Army units are not fully ready to be employed immediately upon arrival in a theater because they do not arrive intact. Generally, units' personnel are broken up into small groups for air travel; their equipment, ammunition, fuel, food and water, etc., arrive separately on military and/or commercial-type transportation assets and perhaps sequentially, depending on the capacity of the infrastructure on the receiving end; and then the units must reassemble their components into a cohesive fighting force before they can be employed. Army special operations and airborne forces are able to fight immediately upon arrival—but they are limited as to the scope of missions they can perform, their sustainment and resupply over time and the availability of ready air and naval assets for both deployment and sustainment.

However, what the nation requires to meet 21st century security challenges is a joint force that is “ready, rapidly deployable and expeditionary *such that it can project power on arrival* [emphasis added].”⁵ These qualities will become indispensable for success in tomorrow's strategic environment; the deployment process must change to help the joint force overcome dynamic adversaries.

Conceptually, the way the Army deploys today must change for a large portion of the force. Because

future strategic environments will more frequently demand forces that are immediately employable upon arrival, the Army will not always have the luxury of time that permits the breaking apart of a unit at home station, shipping its components separately to an intermediate staging base and then reassembling it over several weeks of joint reception, staging, onward movement and integration. In all probability, Army forces will have to land more frequently at austere *points* of debarkation rather than world-class deep-water *ports* of debarkation. Such change will require a concerted, integrated effort among the entire joint community, Congress and the administration.

Status of Joint Strategic Mobility

Joint forces' strategic mobility consists of capabilities from the traditional mobility triad of airlift, sealift and prepositioned sets of equipment. The triad rests on a foundation that includes power-projection infrastructure (which today also requires global networking capability), deployment process enablers and deployment training and readiness. This strategic mobility capability framework is instrumental in ensuring the availability of relevant forces that are able to conduct operations rapidly upon arrival in theater.

The Army depends on the Navy, the Air Force and U.S. Transportation Command's commercial partners for the provision of transportation to theaters of operation. Those interorganizational strategic-lift assets provide the critical first step in enabling the Army's movement and maneuver warfighting function. As a result, the entire strategic mobility capability portfolio is inherently joint. The Army continually participates in joint and sister-service initiatives for strategic-level mobility while simultaneously seeking to improve its own organic aviation and watercraft capabilities for tactical- and operational-level mobility.

During the 1990s, after the force projection challenges of Operation Desert Storm revealed the need for major investment in strategic mobility, Congress appropriated nearly \$50 billion to improve airlift, sealift, prepositioned stocks and other deployment infrastructure. Some of the equipment that the nation procured included large, medium-speed, roll-on/roll-off

⁵ Department of Defense, “Defense Budget Priorities and Choices,” January 2012, p. 1, http://www.defense.gov/news/Defense_Budget_Priorities.pdf.



(LMSR) ships and C-17 Globemaster III cargo aircraft. That money also improved road, rail and port facilities at Army installations, funded new deployment training and exercises and procured other enablers such as railcars and shipping containers that helped ensure a more rapid and consistent Army response capability. The Army’s portion of that investment was managed under the Army Strategic Mobility Program, which included cooperation with the other services on such matters as acquisition strategy, platform requirements and stationing decisions to optimize strategic lift for rapid landpower response options.⁶

Airlift

Historically, only about 10 percent of the Army is deployed and sustained by air—but this capability is essential for some types of operations that cannot be performed any other way. For example, the airborne parachute assault has long provided the means for forced entry into contested spaces. Airborne forces can rapidly introduce operationally significant combat power into a theater, secure and expand a lodgment for follow-on forces and enable resupply by airlift during the critical initial phases of operations.

Humanitarian assistance and disaster relief operations—among the most common missions performed by the Army—often require strategic airlift capability for the rapid provision of Soldiers, equipment and relief supplies into austere environments (especially if port facilities do not exist or have sustained damage). Almost all Soldiers and some equipment routinely deploy to theaters of operations aboard U.S. Air Force Air Mobility Command and chartered commercial-carrier aircraft.

DoD maintains approximately 317 cargo aircraft in its dedicated strategic airlift fleet. Of these, approximately 222 are C-17 Globemaster III aircraft. The C-17 has an unrefueled range of about 2,800 miles and can carry 102 paratroopers, 80 tons of cargo, three Bradley

Strategic Mobility Programs

Platforms	On Hand	Projected Levels
C-17 Globemaster III <i>Strategic airlift, tactical airlift, medical evacuation transport, airdrop</i>	222	No change anticipated
C-5 Galaxy <i>Strategic airlift, outsize and oversize cargo transport</i>	95	Production discontinued; reduce to 52
C-130 Hercules <i>Tactical airlift; troop, medical evacuation and cargo transport</i>	318	No change anticipated
KC-135 Stratotanker <i>Aerial refueling</i>	414	Production discontinued; no change anticipated
KC-10 Extender <i>Aerial refueling, cargo transport</i>	59	Production discontinued; no change anticipated
Civil Reserve Air Fleet <i>Reserve airlift (commercial)</i>	554	No change anticipated
LMSR Ships <i>Sealift</i>	19	Production discontinued; no change anticipated
Fast Sealift Ships <i>Rapid sealift</i>	8	Production discontinued; no change anticipated
Ready Reserve Force <i>Reserve sealift (government-owned)</i>	46	No change anticipated

LMSR – Large, medium speed roll-on/roll-off

Source: Headquarters, Department of the Army

fighting vehicles or a single M1 Abrams main battle tank (which weighs about 69 tons). The C-17 was designed to be able to operate from short or unpaved runways, making it capable of forced entry into nonpermissive areas. Significantly, the Army’s Ground Combat Vehicle, currently under development, is also being designed to be transportable in a C-17.

DoD’s remaining strategic airlift assets are C-5 Galaxy aircraft. The C-5 is among the largest military aircraft in the world and was designed to have intercontinental range. It can carry almost every type of Army combat equipment: six Apache helicopters, five Bradley fighting vehicles, one Abrams M1 main battle tank⁷ or 36 463L master cargo pallets (each weighing 10,000 pounds) in addition to 75 passengers in its upper seating area.

⁶ See AUSA Torchbearer National Security Report “Strategic Mobility & Responsive Power Projection,” January 2000, <http://www.ausa.org/publications/torchbearercampaign/tnsr/Documents/dec9.pdf>. See also AUSA Torchbearer Special Report “Army Strategic Responsiveness . . . Concept to Reality,” January 2001, http://www.ausa.org/publications/torchbearercampaign/tsr/Documents/Army_Strategic_Responsiveness.pdf.

⁷ In a true emergency, the C-5 Galaxy is capable of carrying two M1 Abrams tanks. However, carrying a load as dense as a tank unduly stresses the airframes of a C-5 or C-17. Hauling a tank even one time significantly reduces the useful lifespan of an aircraft.



Although the individual capability of these aircraft is impressive, the fleet is aging rapidly. The C-5 has already been in service for 44 years—it helped evacuate Saigon—and has been out of production for years. It has been 20 years since initial delivery of the C-17. These aircraft have seen significant operational use: between 30 and 40 percent of them have been committed to supporting the warfight on any given day since 2001. Even so, strategic airlift has been chronically underfunded throughout the lifespans of both aircraft; the Air Force will retire nearly half of the remaining C-5s to help meet its budget goals in today’s constrained fiscal environment. The age of the fleet and the extraordinary requirements placed on it for several decades present readiness challenges and demand the development of more capable platforms better suited for the strategic and operational challenges of the future. Today, the airlift fleet would need to marshal most of its available assets to deliver even a single airborne brigade *en masse*, and the nation’s industrial capacity to produce more of these large aircraft is at risk.

Sealift

Most of the Army typically deploys and is sustained by vessels of the Navy’s Military Sealift Command, the Maritime Administration or U.S. Transportation Command’s commercial sealift partners. Military Sealift Command operates 26 ships in its sealift program, including four tankers, five High-Speed Vessels (HSVs), five roll-on/roll-off ships, nine LMSRs and three dry-cargo vessels.

The HSVs, the newest in the sealift program, are designed to offer operational maneuver capability to the

Army. Although their cargo capacity of 20,000 square feet is somewhat limited, their top speed of as much as 35 knots and their very shallow draft (less than 15 feet) make them useful for rapid introduction of landpower in austere or degraded port environments.

The roll-on/roll-off ships are much larger, ranging between 150,000 and 296,000 square feet of cargo space. These are deep-draft ships that require as much as 40 feet of water, and their speeds vary between 14 and 27 knots, but they are designed to enable rapid deployment of vehicles in a ready state.

LMSRs are massive government-owned ships that carry Army equipment and personnel and can offload their cargo quickly—if suitable port facilities are available. They can carry an entire equipment set for a BCT and have been workhorses for deployment and sustainment in Iraq and Afghanistan. Their speed is approximately 24 knots, but they require as much as 36 feet of draft, seriously limiting their access into contested or unimproved environments.

The Maritime Administration operates an additional 46 ships, maintained at a reduced operational status, in the Ready Reserve Force; these must be able to be made ready to load Army equipment for deployment on five to 10 days’ notice. This fleet comprises many specialty ships with unique capabilities and includes roll-on/roll-off, crane, tanker, helicopter repair and Seabee ships. These are managed under commercial contract and maintained, manned and operated by merchant mariners, and they are periodically exercised for military cargo operations at the direction of DoD.

The workhorse of this reserve sealift fleet is the fast sealift ship, comprising eight of the vessels in the fleet. These are routinely kept in reduced operating status but can be fully activated and get underway to loading ports within 96 hours of being alerted. Together, the fast sealift ships can haul the equivalent of an entire Army mechanized division at a top speed of 27 knots, but these too have deep drafts approaching 36 feet.

Despite ships’ dependence on large quantities of fossil fuels, the maritime domain continues to provide the most efficient means of transporting significant levels of Army equipment. However, the large cargo ships are highly dependent upon the availability of deep-draft seaports of debarkation (which comprise only a small



fraction of the world's ports). Like the strategic airlift fleet, the sealift fleet's age—most of these 72 ships were built in the 1960s and 1970s—and the operational demands of the past 25 years indicate a need for the development and fielding of new technology upgrades and platforms better suited to the nation's requirements in the 21st century security environment.

Army Prepositioned Stocks

Army prepositioned stocks are placed either afloat or ashore to help make heavy equipment and supplies more readily available in locations far from the continental United States. These serve as insurance for unexpected contingencies and contribute significantly to the deterrence of adversaries and the reassurance of allies and partners. Their versatile payloads provide combatant commanders with responsive and flexible capabilities across the spectrum of military operations, and they are being increasingly employed in support of regional exercises as Soldiers build partner capacity and develop relationships—particularly with the Army's many partners in the Pacific region. Of the nation's 19 LMSR ships, eight are dedicated prepositioned-stock ships; they can sustain a heavy armored brigade for 15 days.

The Army has five prepositioned sets. APS-1 is in the continental United States; APS-2 is in Europe; APS-3 is afloat; APS-4 is in the Pacific; and APS-5 is in southwest Asia. The composition of their loads sometimes changes according to the anticipated strategic needs in nearby theaters. For example, Army watercraft are included in APS-4 and APS-5 to help ferry cargo in an area of operations. APS-2 maintains a greater number of heavy vehicles, as does APS-4, which also includes a considerable amount of special equipment useful for disaster relief.⁸

Power-projection Infrastructure

As the Army comes to be based almost entirely in the continental United States, it is reassessing the condition and throughput capacity requirements for its installations' deployment infrastructure and will specifically include it in strategic readiness reporting. Rapid deployment and employment of landpower capability is an extremely complex challenge requiring well-orchestrated



actions built on a foundation of adequate physical infrastructure. To help address this complexity, the Army is currently fielding network infrastructure that significantly improves units' efficiency and maintains better communication throughout the deployment process.

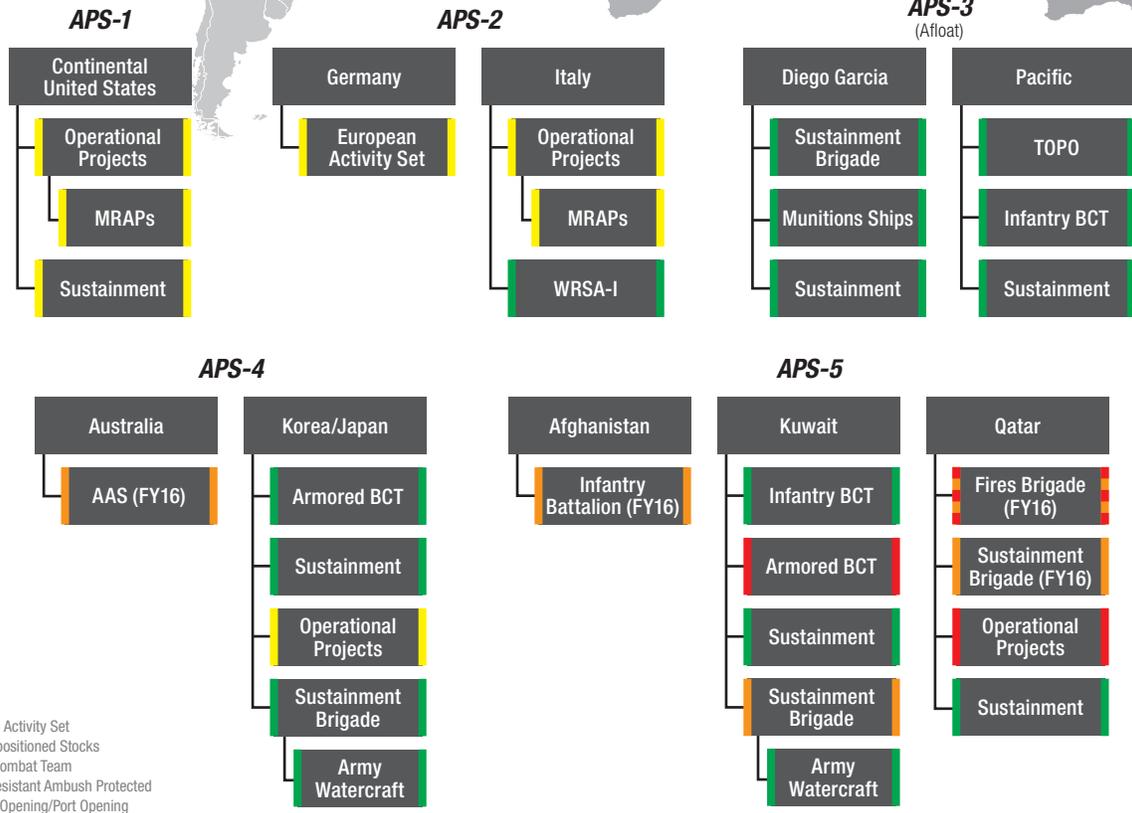
To improve the flow of people, equipment and supplies from the United States to points of embarkation, the Army invested nearly \$1 billion during the late 1990s enhancing its power-projection platforms—including dozens of installations, road networks, railroads, airfields, strategic seaports, ammunition plants and depots. A few of these investments included modernization of arrival and departure airfield control group facilities at Fort Bragg, North Carolina, and Joint Base Lewis-McChord, Washington; improved facilities for rapid rail loading at power-projection installations such as Fort Stewart, Georgia, Fort Hood, Texas, and Fort Campbell, Kentucky; acquisition of several thousand dedicated railcars and shipping containers for prepositioning at ammunition plants and depots; and upgrades to equipment prepositioned afloat at Charleston Naval Weapons Station, South Carolina.

However, the age of much of the Army's deployment infrastructure, coupled with the operational tempo of many locations, requires some reinvestment where additional brigades have been stationed. Other locations require resources to make up for past deferrals of routine maintenance. Limited construction funds have been stretched to accomplish all of the projects necessary to

⁸ See AUSA Torchbearer Issue Paper "Army Prepositioned Stocks: Indispensable to America's Global Force-projection Capability," December 2008, http://www.ausa.org/publications/torchbearercampaign/torchbearerissuepapers/Documents/TB-IP_120308.pdf.



Global Army Prepositioned Stocks Footprint



AAS – Australian Activity Set
 APS – Army Prepositioned Stocks
 BCT – Brigade Combat Team
 MRAP – Mine Resistant Ambush Protected
 TOPO – Theater Opening/Port Opening
 WRSA-I – War Reserve Stocks for Allies – Israel

█ Building █ Future Build
█ Fully Operational █ Issued

Source: Headquarters, Department of the Army



accompany Army restationing actions, quality-of-life priorities and deployment infrastructure improvements and maintenance.

Recent Lessons

The joint force has performed some truly remarkable strategic mobility feats during the wars in Iraq and Afghanistan, and the Army's joint partners have contributed greatly to the behind-the-scenes efforts that deliver the nation's combat power where it is needed. For example, in April 2004, Air Force C-17s conducted the largest airdrop of Army engineer equipment since World War II, enabling Army combat engineers to construct (in this instance) a 7,200-foot runway and an 80,000-gallon refueling system to support operations at a new forward operating site in Afghanistan. In another example, Navy Military Sealift Command ships delivered 21 million square feet of cargo into the Middle East in just five months before and immediately after the 2003 invasion of Iraq—and then helped sustain the expeditionary forces indefinitely.⁹ (To put this in perspective, a BCT's equipment occupies about 300,000 square feet of cargo space aboard these large ships.) There can be no question that the joint force was served well in these instances by the strategic-lift capabilities then in existence.

However, a revealing incident occurred in 2009 that sheds light on the challenges ahead. The Army was called upon to conduct a rapid deployment to Haiti and perform humanitarian assistance and disaster relief missions after a major earthquake. A large portion of the Army and its power-projection forces were already committed in the Middle East. Therefore, the rapid response in this degraded environment proved to be complex and challenging.

Units alerted for short-notice deployment to Haiti encountered obstacles as they developed deployment data. Headquarters throughout the chain of command struggled to maintain clear requirements and track deployment activities. At lower levels, even simple procedures turned out to be problematic. Tie-down teams had difficulty completing their tasks according to schedule. Standard operating procedures proved to be outdated. Hazardous material specialists were unavailable. In short, many units found that they were not as prepared



as they might have been to execute short-notice deployment with the required speed and precision.

This experience served as an acute reminder that both individual and collective rapid-deployment skills and resources are extremely perishable. Because the Army had been stretched to meet the demands of one type of contingency in the Middle East, a whole generation of Soldiers had never experienced an unexpected, short-notice deployment to a theater with severely degraded infrastructure.

The nation and the Army are shifting focus once again. As defense resources rebalance to the Pacific, the Army is aligning its forces regionally to maximize its responsiveness to the needs of the geographic combatant commanders. Most significant, it is reestablishing its readiness for short-notice deployments into austere environments and expanding its ability to overcome adversaries' anti-access/area-denial strategies and tactics. Together with the other services, the Army is beginning to shift away from the recent paradigm in which the joint force has been able to assume that it will have unopposed, assured access to deep-draft commercial ports, world-class airports and multimodal transportation infrastructure.

Matching Doctrine to New Requirements

The President's January 2012 defense strategic guidance offered direction for the development of the 21st century joint force and in many ways implied the beginning of a joint community-wide paradigm shift

⁹ See AUSA Torchbearer Alert "Time to Invest in Strategic Mobility," March 2007, http://www.ausa.org/publications/torchbearercampaign/torchbeareralerts/Documents/TB-AlertMAR07sm_1.pdf.



A Possible Future Contingency Response in the Pacific

Scenario

A typhoon—similar in size to Typhoon Bopha, which struck in December 2012—has struck the southern Philippine island of Mindanao, unleashing unprecedented devastation on the island’s northern and eastern coasts. The storm has caught nearly all local government units and nonprofit disaster relief organizations by surprise; these have little experience with such vast storms and can offer little aid. The typhoon has affected more than six million residents, displacing one million and destroying 230,000 homes. Roads, telecommunication lines, bridges and community health centers have all been affected by the storm’s impact.

An Islamic insurgency has survived in the Philippines since the late 1960s. Government forces have long held the upper hand against the jihadists, but they have never been entirely eradicated and continue to engage in criminal and terrorist activities that threaten the country’s internal security, hamper nation building and influence regional security.

The government has been overwhelmed by the storm. Civilians living in the south of Mindanao have become disenfranchised as they perceive unfair favoritism being shown by the government to the storm victims in the north. The jihadists have become emboldened and hope to take advantage of the government’s vulnerability.

Response by U.S. Army I Corps

At the request of the government of the Philippines, U.S. Pacific Command orders I Corps to deploy immediately and execute humanitarian assistance, disaster relief, noncombatant evacuation and security force assistance. It might become necessary at a later time to enforce the peace.

Step 1

I Corps establishes a joint response cell at Joint Base Lewis–McChord (JBLM) in Washington state together with members of 1st Special Forces Group, the 84th Civil Affairs Battalion and a

U.S. Air Force liaison officer. These monitor the situation at the intelligence operations facility and provide reachback support to those deploying first.

Step 2

I Corps’ Early Entry Command Post (EECP) deploys via C-17 Globemaster III from JBLM within 12 hours. The EECP begins assessment and coordination with joint, interagency and multinational assets. The initial assessment team identifies and communicates requirements for enablers such as medical personnel, engineers, logisticians, intelligence support, communications, aviation and Army watercraft to react to the devastation.

Step 3

The commanding general of I Corps diverts equipment bound for use in annual exercises in Japan to the Philippines; meanwhile, personnel in theater begin utilizing Army prepositioned stocks (used annually for exercises and security force assistance as part of Operation Enduring Freedom–Philippines). Additional Stryker, combat aviation and engineer assets are alerted for possible deployment from Tacoma, Washington, if a need arises for wide-area security in the south of Mindanao.

Step 4

I Corps establishes a forward headquarters in Manila to set the theater for greater support. I Corps works with joint partners to set up camps for displaced persons and provide food, shelter and medical care. In conjunction with U.S. Marines, I Corps personnel facilitate the evacuation of U.S. citizens as civil unrest increases. In addition, Soldiers establish a joint mission command center with the Philippine Army to coordinate response.

Step 5

I Corps provides security force assistance to the Philippine Army to provide stability in the southern Philippines. They focus on countering improvised explosive devices, conducting detention operations, providing medical care, patrolling local towns, gathering intelligence and responding to threats. As instability grows, I Corps establishes a joint task force headquarters in support of a larger joint response.

Source: Headquarters, I Corps

toward increased readiness requirements for strategic forces. Specifically, this guidance recognized that:

- joint forces must be capable of deterring and defeating aggression by opportunistic adversaries in one region even when committed to large-scale operations elsewhere;
- joint forces must be able to fully deny a capable state’s aggressive objectives by conducting

a combined-arms campaign across all domains including land, sea, air, space and cyber;

- ground forces must prudently balance strategic lift, forward presence and prepositioned stocks to preserve the agility required in several regions where conflict is likely;
- the military must invest in a broad range of new capabilities—including new ideas, new equipment



and new training—to ensure it maintains the ability to operate effectively in the face of anti-access/area-denial campaigns and asymmetric threats;

- America’s joint force is uniquely capable of responding successfully to disaster, delivering humanitarian assistance to the point of need and leading complex interagency and intergovernmental relief efforts; and
- it is necessary to rebuild readiness in areas that, by necessity, were deemphasized over the past decade of war.¹⁰

The administration’s guidance indicates that the lines that once clearly delineated strategic, operational and tactical levels of war and military operations are rapidly dissolving. In the realm of strategic mobility, some of the indicators that defy the structures of the old framework include the concept of modularity, the development of deployable expeditionary agency personnel and contractors, direct delivery of configured loads from depots all the way to forward operating bases, supply chain integration and streamlined logistics processes.

Effective global maneuver and unified action in the coming decades will more frequently require that mission planning occur even as forces are en route in response to a contingency; that mobile forces develop and gain the capability to rehearse their missions as they journey into theater; and that Soldiers learn to transition among roles based on situational awareness gained as events on the ground evolve rapidly.

Consistent with the administration’s guidance, the Army and the entire joint force have moved promptly to develop new doctrine to address the security and mobility challenges inherent in the fast-paced information era. For example, the *Army Capstone Concept* identifies the deployment and projection of capable forces as an operational function—a component of movement and maneuver—rather than as a sustainment function.¹¹ (Indeed, the understanding of strategic mobility as a major



pillar of mission command—as something fundamental to the nature of a contingency—represents a profound philosophical and cultural shift.) Similarly, the *Capstone Concept for Joint Operations* and the concept of globally integrated operations it advocates identify potential implications for force development as it pertains to strategic mobility.¹² These include such initiatives as the development of intelligence analysis capabilities that better correspond with the nature of 21st century contingencies, enhancing the synchronization of global distribution and improving the joint force’s capacity to operate in degraded environments.

The recently developed *Joint Operational Access Concept* also suggests ways in which properly resourced mobile Army forces might be employed in the future to counter adversaries’ anti-access objectives:

In the anti-access case in particular, even if the objective area is well developed in terms of infrastructure, the most desirable approaches may well be austere. In the area-denial case, many conflicts will arise in failed or failing states where infrastructure is lacking. In such cases, an advancing force will have no option other than to operate under austere conditions. At the same time, the ability to operate effectively

¹⁰ DoD, *Sustaining U.S. Global Leadership*, pp. 4–7, http://www.defense.gov/news/Defense_Strategic_Guidance.pdf.

¹¹ U.S. Army Training and Doctrine Command, TRADOC Pamphlet 525-3-0, *The U.S. Army Capstone Concept*, 19 December 2012, p. 29, <http://www.tradoc.army.mil/tpubs/pams/tp525-3-0.pdf>. See also AUSA Defense Report 13-1, “The U.S. Army Capstone Concept: Defining the Army of 2020,” January 2013, <http://www.ausa.org/publications/ilw/DigitalPublications/Documents/dr13-1/index.html>.

¹² Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020*, 10 September 2012, http://www.jcs.mil/content/files/2012-09/092812122654_CCJO_JF2020_FINAL.pdf.



in such conditions can confer an advantage to an advancing force because it increases operational flexibility by freeing the force from major ports, airfields and other infrastructure and thereby also complicates enemy intelligence collection efforts.¹³

Matching Resources to Strategy and Doctrine

Strategic guidance, joint concepts and doctrine and the best analyses all agree that the joint force's recent luxuries of long lead time ahead of foreseen deployments and lengthy, unopposed debarkation and assembly of forces are unlikely to exist in future applications of military power. Given the limitations in the numbers and the technology of existing strategic-mobility platforms—nearly all of which are decades old—it follows that new resources will be required to rebuild readiness in neglected areas and implement the joint force's creative new doctrine to force entry into denied territories. Whether responding to a natural disaster or entering a combat mission, Soldiers are going to rely more heavily than ever before on being immediately employable upon arrival in theater.

Unfortunately, DoD's most recent analysis of its strategy and resources for conducting strategic lift leaves some fundamental questions unanswered. Written in 2010—before the administration charted its new course of rebalance toward the vast Pacific region and before the

decline of the defense budget began in earnest—"Mobility Capabilities and Requirements Study 2016" predates many of the latest changes in joint doctrine. Its key conclusions at that time included the following:

- DoD's existing mobility capabilities were thought to be sufficient to support the most demanding projected requirements.
- Inter- and intra-theater airlift capabilities, surge sealift, prepositioning and continental U.S. transportation assets, including the Civil Reserve Air Fleet, were viewed as largely satisfactory for the foreseeable future.
- The fundamental constraint when attempting to shorten deployment timelines of U.S. forces was judged to be the lack of foreign infrastructure—a problem which the procurement of additional assets cannot overcome.¹⁴

The study's limitations present an unsatisfactory paradox in the context of more recent strategic guidance and joint doctrine. It perpetuates the assumption that the existing paradigm for strategic mobility—in which infrastructure in theaters of national interest will be available—will persist. But this is precisely the paradigm that new doctrine recognizes as outdated and unsustainable. On the one hand, the study reassures the reader that existing fleets and technologies are sufficient for future requirements; on the other hand, it identifies challenges that cannot be overcome with the technologies built into the aging fleets. There is little basis for making decisions about which platforms could be reduced in number to gain efficiencies, which platforms ought to be increased in number to overcome existing shortfalls or what kinds of capabilities ought to be designed into a new generation of technology to enable operations in more austere environments.

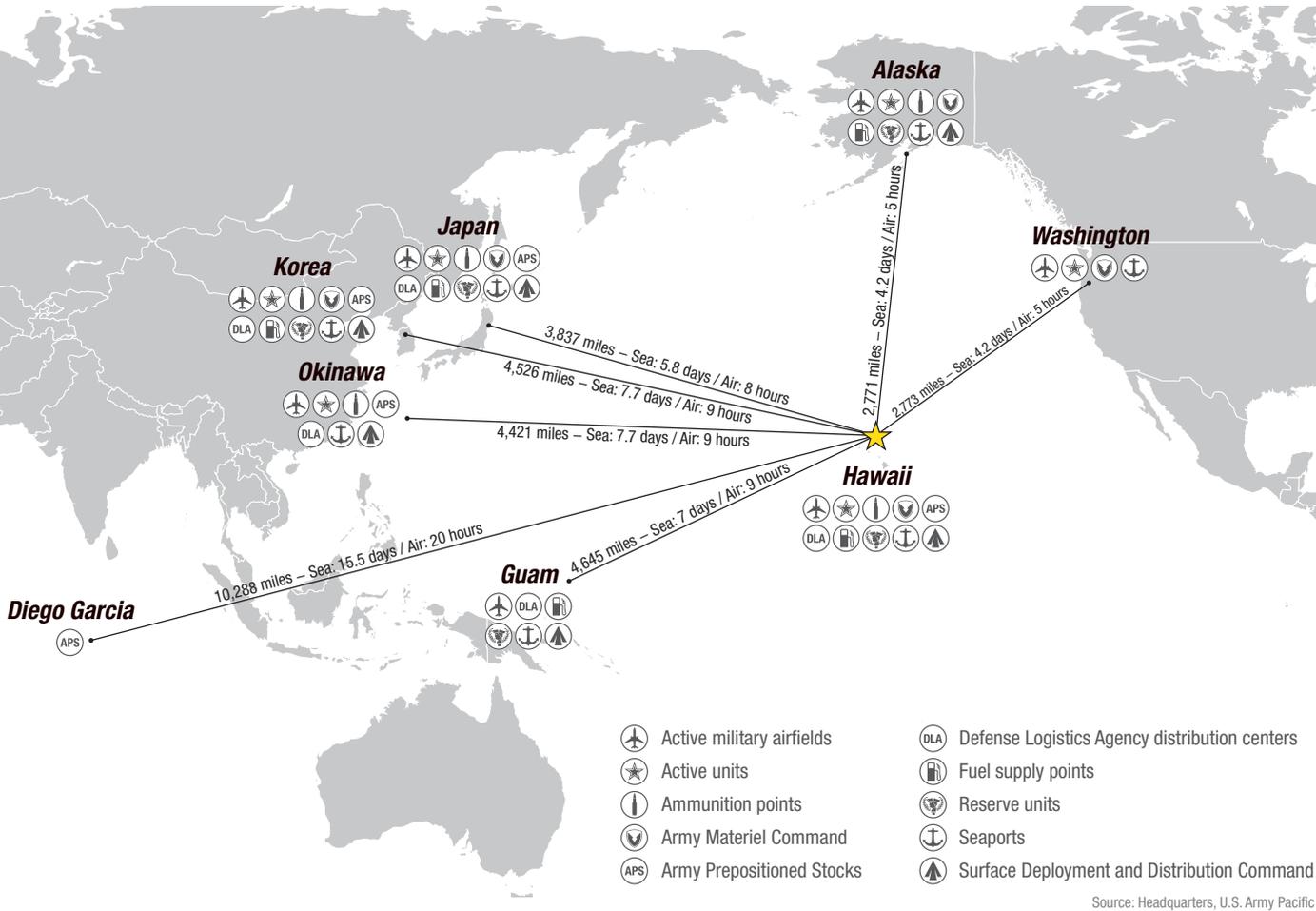
In other words, **the nation's current mobility solution set satisfies current scenarios, but it does not align with strategic realities, direction and doctrine for the future.** It is quite possible that the estimates communicated in various plans and studies regarding

¹³ The Joint Staff, "Joint Operational Access Concept," 22 November 2011, p. 7, http://www.defense.gov/pubs/pdfs/JOAC_Jan%202012_Signed.pdf.

¹⁴ Department of Defense, "Mobility Capabilities and Requirements Study 2016 Executive Summary," 26 February 2010, p. 4, http://www.roa.org/site/DocServer/MCRS-2016_exec-summary.pdf?docID=28383.



Sustaining Landpower in the Pacific



the length of time required to deploy a typical Army BCT are based on overly optimistic assumptions about the availability of strategic airlift and the capacity of destination airfields. The Army faces a requirements–doctrine–resources mismatch with regard to joint interdependencies for strategic mobility.

The Way Ahead

The Army will soon be almost entirely based in the continental United States. Strategic guidance and joint doctrine depend heavily upon the nation’s ability to deploy ready forces to the vast Pacific region while preserving the capability to return to Europe and Asia in force—and perhaps on short notice—after the draw-down from Afghanistan concludes.

But the vast majority of the expeditionary Army remains wholly reliant on airlift, sealift and prepositioned

equipment that require world-class developed infrastructure for debarkation and several weeks to build combat power in a theater. This deployment process, though formidable in some ways, is also fraught with strategic risk and must evolve to better match the requirements already identified and the doctrine already developed. Because of the proliferation of anti-access/area-denial strategies and the predictability of force flow through strategic chokepoints using the current fleet of lift platforms, it has become necessary to develop and field transformational lift platforms that can deliver forces and sustainment into unimproved or austere locations.

To begin changing the paradigm, the Army is building a family of maneuver support vessels (MSVs) for the future to help deliver intact, immediately employable



strategic landpower at the small-unit level. These operational maneuver platforms will carry tailored, operationally significant force packages directly into austere or degraded points of entry—potentially at multiple, unpredictable locations.

MSVs will bridge the concepts of strategic lift and operational maneuver as a necessary enabler until the other services (who also have Title 10 responsibility) develop shallow-draft strategic sealift and austere entry-capable strategic airlifters that have the global reach to maneuver intact landpower units. Until then, the Army's MSV fleet will be able to maneuver and support sustained land operations in tactical synchronization with Army maneuver forces. It will improve operational reach and agility by exploiting the littorals and other underutilized elements of the maritime domain such as shorelines, rivers, inland waterways and lakes as extensions of the land maneuver space. MSVs will contribute in significant ways to the expansion of assured access, helping to mitigate the strategic vulnerability created by overreliance on logistical chokepoints and creating dilemmas for adversaries.

Capabilities-based assessments, experimentation and wargames inspire strategic thinking about how the Army must evolve its doctrine, organizations, training, materiel, leadership and education, personnel, facilities and policies. Parallel with the *Army Capstone Concept* and other joint doctrine already described, the Army is keeping pace with changes in the strategic environment to address anticipated challenges and gaps in capability. Included in the next-generation thinking emerging to-day in Army doctrine are:

- operational maneuver of forces directly into an area of operations;
- vertical maneuver; and
- establishment of the operational reach required to gain positions of advantage in anti-access/area-denial environments.

In addition to these starting points, the Army is committed to doing whatever it can within its Title 10 authority—and its budget constraints—to improve deployment readiness. To this end, the Army G-3 (Operations) and G-4 (Logistics) colead the Army Power-Projection Program, which provides management framework and decisionmaking forums to improve strategic mobility in all possible ways.

Most recently, in January 2013 the Army Chief of Staff approved the Rapid Expeditionary Deployment Initiative (REDI) as a component of the Army Power-Projection Program. REDI involves all Army service component commands, Army commands and direct reporting units and is organized along three lines of effort:

- The deployment/redeployment process, policy and doctrine component reviews and updates Army deployment and redeployment policy, doctrine, regulations and processes to keep the Army aligned with strategic guidance, future concepts and lessons learned from experimentation and wargames.
- The deployment readiness component (training, exercises, reporting) focuses on ensuring that deployable Army units are trained, exercised and ready to operate on short notice. It also resources emergency deployment readiness exercises (EDREs) and associated ship and airframe exercise participation.
- The deployment/redeployment infrastructure component analyzes current and required capability of the Army's generating force including installations' infrastructure, personnel and equipment needed to deploy according to combatant commanders' requirements. It also reviews and makes prioritization recommendations for funding new deployment infrastructure.

REDI has already made significant strides toward restoring fundamental rapid-deployment skills



throughout the force and improving the Army's readiness in the areas it can affect. Among its several achievements have been:

- the establishment of deployment readiness reporting by the generating force in the Army Strategic Readiness Update;
- the reestablishment of the EDRE program and budgeting for two exercises per year;
- deployment process improvements, such as standardization of the unit movement officer training course, resulting from an Army unit movement officer study;
- the creation of a command deployment discipline program; and
- incorporation of force projection as a critical element in the Army Campaign Plan.

The Army's "new normal" involves the requirement to be able to respond to a full range of contingencies with little advance warning. Response must keep pace with the speed of information and the proliferation of militarily useful technology. Learning to be mission-capable upon arrival through austere or degraded ports is a capability not easily achieved—it requires practice by the deploying units and the installations supporting them; the interest and participation of combatant commanders and sister services; and properly maintained, constantly ready deployment infrastructure. The Army Power-Projection Program and REDI support the shift to this new standard for training and deploying Soldiers while exercising other components of the joint deployment process.

The Army also continues to engage with its joint partners and seeks to influence joint strategic mobility programs. For example, the Army Chief of Staff chose high-speed/austere-access sealift as one of his top four "selected high-payoff investment areas" for continued priority in a difficult budget climate. In other instances, the Army has sought to involve itself in DoD mobility studies and provided input to the Navy's strategic sealift siting plan.

Finally, there is an urgent need for the Army to participate in the specific development of dynamic defense planning scenarios that challenge conventional wisdom, account for intelligent and adaptive adversaries and



anticipate ever-shrinking contingency response timeline requirements. Simple analysis of capability requirements against yesterday's scenarios and the assumption of continuous availability of unopposed, world-class commercial port facilities are wholly insufficient. The status quo—let alone the likelihood of sister services being forced to cut strategic mobility assets in their attempts to resolve budget concerns—fails to account adequately for the dynamic and uncertain future ahead.

What Is Needed

The Army has access to the most highly capable deployment and sustainment forces in the world. These resources are what make the Army an expeditionary force, able to do the nation's bidding across the globe. Although these resources are envied for their raw capacity, the strategic-lift platforms and the methods with which they are employed are outdated in certain respects. When the United States has time to assemble and ready forces in unopposed, developed environments, these resources are adequate; but the country will face security challenges in the near future for which these mighty planes and ships will be ill-suited.

The *Army Capstone Concept* succinctly describes what is needed for strategic mobility in the context of improving expeditionary capability for the Army of 2020:

The Army projects forces worldwide into any operational setting and conducts operations immediately upon arrival. Expeditionary operations require the ability to deploy quickly to austere areas and shape conditions to seize and maintain the initiative. The Army will leverage



the breadth and depth of its means to meet joint commander mission requirements rapidly with scalable and tailored expeditionary force packages that complement other service capabilities. These capabilities will be resident in readily available and trained regionally and globally aligned Army forces. Reducing reliance on intermediate staging bases, ports and airfields will better enable an expeditionary Army to respond rapidly and attack simultaneously throughout the depth and breadth of a joint operations area while diminishing enemy anti-access and area-denial capabilities.¹⁵

As described previously, the Army is already taking significant action—primarily through REDI—to improve and streamline the deployment process wherever possible. That initiative is also restoring the training necessary to keep Soldiers ready to deploy on short notice and coordinate successfully with joint partners; it is also identifying ways to improve Army facilities to ease the complications of synchronized embarkation.

Work is already underway to bridge the limitations of current capabilities to provide combatant commanders access to operational Army formations; the Army's MSVs will be a prime example of materiel solutions that the Army is undertaking. The next step is to leverage 21st century technology to expedite the application of military capabilities and reduce sustainment requirements for missions across the entire spectrum of contingencies. Congressional action to set aside funding for these initiatives ensured that one transformation in

strategic mobility was seen through to completion in the 1990s; similar action again today would help reduce the resource competition that precludes major progress. It would also reduce the risk that adversaries' anti-access/area-denial strategies or austere environments could preclude strategic success in future contingencies.

However, the vision for Army 2020 strategic mobility and expeditionary capability is a joint vision. It requires complementary evolution of the airlift and sealift enablers as well. Defense budget uncertainty makes such interservice cooperation toward a common vision difficult to sustain as the services are forced to prioritize their investments. But transformative cooperation will be doomed from the start if DoD cannot provide a credible and specific strategic mobility study that establishes clear guidance for the services as to the requirements for the future force.

The speed afforded by strategic airlift in the initial phases of operations is vital in a security environment defined by its complexity and volatility. Technological advances enabling precision aerial delivery from both manned and unmanned platforms must be expanded and exploited. Likewise, technology that combines the efficiencies of sealift and the speed advantages of airlift should continue to be developed to affect adversaries' decision cycles and tip the military balance in favor of the U.S. joint force. It is also necessary to continue to incentivize commercial aviation partners to maintain heavy cargo capacity; in the recent past, the United States has occasionally had to resort to leasing Russian aircraft to help move some of the Army's outsized cargo. The most critical need in leveraging the air domain as an extension of the land maneuver space in future operations is working with the Air Force to transition to austere-access movement of intact Army formations in next-generation strategic-lift platforms. These might include large cargo-carrying airships that could help bridge the gap between scarce airlift and slow, infrastructure-reliant ocean transit.

Priorities for strategic sealift are comparable. The ultimate goal is to cooperate with the Navy and civilian partners (through the structure provided by the Voluntary Intermodal Sealift Agreement and the Maritime Security Program) to maximize the capability to keep Army

¹⁵ TRADOC Pam 525-3-0, *U.S. Army Capstone Concept*, p. 12.



units intact and as ready as possible at the point of debarkation.¹⁶ But there is constant economic pressure for the Navy to keep as many sealift platforms as possible in reserve status because of their considerable expense. However, it is imperative that there be a balance between the heavy lifting capabilities of deep-draft ships and the higher speeds and shallower drafts of smaller craft, thus retaining strategic options for decisionmakers.

The Army is reconstituting its prepositioned stocks and adding new capabilities such as activity sets and enhanced operational projects. Activity sets consist of unit equipment positioned to support rotational overseas training and exercises. These will be of particular significance as the Army begins the regional alignment of its brigades. Enhanced operational project stocks will permit the Army to better meet combatant commanders' requirements for specialty tasks such as disaster relief, route clearance and bridging.

Deployment infrastructure projects have not received high priority over the past decade. The age of the Army's deployment infrastructure, the high operational tempo sustained at a few of the busiest hubs and the frequent deferral of routine maintenance in challenging budget environments have combined to create atrophy in some installations' readiness to deploy forces to meet combatant commanders' requirements—both now and in the future. Unfortunately, the budget sequestration scenario now in place threatens to exacerbate this trend. The same condition exists for other specialized equipment such as railcars, containers, scales and material-handling equipment. It is time to reinvest in these enablers and the professionals who operate them.

What Must Be Done

Changing the joint community's culture in regard to strategic mobility requires bold leadership. America's future adversaries study the joint force's vulnerabilities, and they are well attuned to the time and resource constraints that limit the options available to American senior leaders in moments of crisis. They will seek to exploit the joint force's capability gaps to preclude its ability to tip the military balance in its favor. The Army



must receive support as the nation's force of decisive action, the anchor of Joint Force 2020 and the service best positioned to influence the human domain where adversaries make their strategic calculations.

Congress and the administration must:

- restore predictability to the defense budget cycle (AUSA Resolution 13-07);
- repeal the "sequestration" cuts that create unacceptable risk throughout the joint force, compel the Army's sister services to seek budget savings from strategic mobility programs and hamper training and readiness efforts that underpin rapid-response capability (AUSA Resolution 13-07);
- mandate and fully fund a realistic mobility study that takes into account the emerging security environment and makes qualitative assessments about the viability of existing strategic airlift and sealift platforms;
- set aside money (as was done for the Army Strategic Mobility Program in the past) for research, development, test and evaluation of mobility platforms and enablers to defeat the austere-entry and contested-entry challenges anticipated in the future (AUSA Resolution 13-11);
- fund the revitalization of the Army's generating force, including installation deployment infrastructure, personnel and equipment necessary to

¹⁶ For more information about the nation's civilian reserve sealift programs, see the U.S. Department of Transportation Maritime Administration's website at http://www.marad.dot.gov/ships_shipping_landing_page/national_security/national_security.htm.



maintain readiness for Army units rapidly deploying from home station (AUSA Resolution 13-07);

- improve transportation infrastructure among installations and air- and seaports to better enable rapid movement of deploying forces and sustainment forces (AUSA Resolution 13-11);
- continue funding Army prepositioned stocks to help overcome the tyranny of distance inherent in deploying and employing strategic landpower (AUSA Resolution 13-11);
- increase acquisition of austere entry-capable strategic airlifters such as the C-17 Globemaster III and more capable sealift platforms based on the High-Speed Vessel until truly transformational strategic mobility platforms are designed and fielded to enable global, single-lift, brigade-level movements;
- invest in the development of heavy-lift airships; and
- incentivize the Civil Reserve Air Fleet, the Voluntary Intermodal Sealift Agreement program and the Maritime Security Program to include austere-entry capability as a militarily useful criterion.

The Department of Defense must:

- initiate a realistic mobility study—unconstrained by current funding limitations—that reflects the joint operating environment and articulates the risks associated with maintaining the status quo or further reducing strategic lift capability;
- ensure the development and utilization of challenging defense planning scenarios that employ

realistic assumptions and address shortfalls in conducting austere-entry and contested-entry operations (AUSA Resolution 13-10);

- provide specific research and development guidance to the Navy and Air Force with unambiguous objectives for austere-entry, global-maneuver and sustainment lift capability development;
- develop and field truly transformational strategic airlift and sealift platforms and at-sea enablers that can project and sustain Army formations into austere environments against anti-access/area-denial strategies (AUSA Resolution 13-14);
- develop and field, as a near-term risk mitigation action, modular berthing accommodations for supercargoes and Soldiers deployed aboard strategic sealift;
- resurrect the role of the joint deployment process owner and reassign the integrator function under an appropriate operationally-focused command to help reverse the atrophy of global deployment skills;
- establish unequivocal requirements for strategic, brigade-level airborne assault and strategic, brigade-level waterborne assault in DoD strategic guidance and the *Joint Strategic Capabilities Plan* (AUSA Resolution 13-11); and
- continue support of U.S. Transportation Command's Future Deployment and Distribution Assessment to help shape strategic mobility and distribution capability requirements far into the future.



Torchbearer Message

Maintaining the ability to deploy and employ promptly at the outset of a crisis is the fundamental task of the Department of Defense and the touchstone of the Army as America's force of decisive action. Strategic landpower—those joint forces capable of conducting prompt and sustained operations on land in pursuit of national objectives—is an inherently joint endeavor that demands access to a range of ready aircraft, ships and prepositioned stocks. But for more than a decade, major wars have forced the Army to focus on rotational deployments to Iraq and Afghanistan. In the future, joint forces will not always enjoy as much time to prepare for their missions. As the Army rebuilds credible force-projection response options in support of the rebalance to the Pacific region, reinvestment in strategic mobility is paramount. Of chief importance is the right mix of strategic mobility enablers and a well-orchestrated, integrated plan among the services, the joint community and interagency and commercial partners.

The United States has no peer when it comes to strategic mobility. It has designed and fielded an unequaled solution set for building up and readying forces over a period of months through large-scale, first-class infrastructure. Maintaining this significant expeditionary capability is central to the nation's security strategy and its continued primacy. But at the same time, the strategic-mobility solution set must evolve to meet the additional challenges presented by tomorrow's security environment as well. This environment is populated by astute and dynamic adversaries who will seek to exploit the joint force's vulnerabilities—such as the need to flow operationally significant landpower and sustainment through easily predicted chokepoints (including deepwater commercial seaports, large airports, canals, etc.).

Effective deployments of the future will be measured by a stopwatch rather than a calendar. Deterrence will continue to be a cornerstone of American security and defense strategies. Successful deterrence relies upon potential adversaries' recognition or perception of the existence of forces that can respond rapidly to any contingency and deliver overwhelming and sustainable combat power through austere points of debarkation and in the face of anti-access/area-denial challenges—a skill set unique to the Army. Future challenges will demand transformational new capabilities to ensure that ready forces can move the last tactical mile, even in harsh environments.

However, the nation's strategic-lift platforms are aging; they lack the characteristics that would enable them to respond more appropriately to the needs of combatant commanders; and DoD's most recent assessment as to their composition has not kept pace with the evolving security environment or new joint force doctrine. Due in large part to the budgetary challenges that DoD faces over the coming decade, the nation's dedicated strategic airlift fleet is slated to be reduced from 317 cargo aircraft to 274. Nearly all of the aircraft to be divested are C-5 Galaxy aircraft—among the very few air mobility platforms in the world capable of hauling the Army's bulkiest equipment. Similarly, most of the nation's 72 strategic sealift ships were built during the 1960s and 1970s. Soldiers and their joint partners need a range of modern airlift, sealift and prepositioned stocks as well as the training to be prepared to meet rapidly emerging contingencies and the infrastructure to enable agile movement.

For the Army to maintain its operational edge against any adversary and remain responsive to the needs of combatant commanders, significant evolution in strategic mobility is necessary. The very culture of American ground-force deployment must shift to achieve a new paradigm in which the port of embarkation in the continental United States is understood to be the line of departure for ready forces. Future crises will demand the intervention of American Soldiers ready to take action as soon as possible upon entry into the theater, much as airborne Soldiers already jump prepared to fight. A credible and specific study is required to determine which lift platforms and key enablers (e.g., ammunition distribution at various ports) are the most capable for tomorrow's missions and which transformational capabilities are most needed to counter adaptive enemies. Finally, breakthrough operational advantages exist that can and must be seized through the maturation of assured access concepts—perhaps to include new waterborne assault capabilities. Timely, predictable and adequate investment in strategic mobility is a national imperative for the Joint Force of 2020.

Joint forces must be able to project military force into any operational area in the face of armed opposition in support of national interests. This is not a new challenge, but it is one that U.S. joint forces have not been called upon to face in recent decades. That condition likely is changing, and the ability to overcome opposed access may prove to be of critical importance in coming years.

General Martin E. Dempsey
Chairman, Joint Chiefs of Staff
“Joint Operational Access Concept,” 17 January 2012



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