

FORCE PROJECTION LOGISTICS ATROPHY: AFFLICTION AND TREATMENT

BY

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FORCE PROJECTION LOGISTICS ATROPHY: AFFLICTION AND TREATMENT

by

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ABSTRACT

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FORCE PROJECTION LOGISTICS ATROPHY: AFFLICTION AND TREATMENT

My logisticians are a humorless lot... they know if my campaign fails, they are the first ones I will slay.

—Alexander the Great¹

Ours is a complex and violent world. The rate of global change since the end of the Cold War is unprecedented. Change often spawns conflict; in 432 B.C. Thucydides observed in his *History of the Peloponnesian War* that conflict arises due to the “pressure of the three strongest motives, fear, honor, and interest.”² Despite the tremendous changes mankind has recorded since that time, these motives and the oscillations of war and peace they bring have remained gravely constant.

The 2010 National Security Strategy addresses these constants and acknowledges the importance of a strong military in preventing wars and deterring threats to the nation’s interests and those common to its allies.³ The United States military “underpin[s] our national security and global leadership” but cannot credibly do so if it cannot project force beyond the limits of its nation’s boundaries.⁴ The 2010 Quadrennial Defense Review Report repeatedly refers to the importance of an expeditionary warfare capability and notes “[i]n the absence of dominant U.S. power projection capabilities, the integrity of U.S. alliances and security partnerships could be called into question, reducing U.S. security and influence and increasing the possibility of conflict.”⁵

Despite the importance of maintaining credible force projection capabilities and the potential consequences in not doing so, lawmakers’ funding decisions have slowly led to an atrophy of the United States’ ability to deploy and sustain ground forces. This

atrophy is not irreversible but if left unchecked it will continue to worsen and adversely affect the United States' ability to secure its way of life.

This paper examines the withering effects that funding and manning choices have had on the U.S.'s ability to rapidly deploy and sustain ground forces in response to global requirements. The first section of this paper examines the requirement for the United States to maintain a viable expeditionary warfare capability. Next, the paper briefly addresses the realities of current and future defense spending. Successively it offers a model which explores the dynamics and interconnected nature of requirements, capabilities, and risk within the context of force projection logistics. This model forms a frame of reference through which subsequent logistical analyses will be viewed. The fourth section of the paper is devoted to an examination of the degrees of degeneration for the seven components of force projection and expeditionary warfare logistics. The final section of this paper offers thoughts on actions lawmakers can take to stem the emaciation of the U.S.' ability to project credible military force and wage expeditionary warfare globally.

Force Projection Requirements in a Unipolar World

There are many in the world community today who are of the opinion that there will be no more major wars. Some individuals believe that mankind, collectively, has become too civilized and that the global neighborhood is too interconnected to allow such barbarous belligerency. Others are of the opinion that future conflicts are possible but not imminent; time acts as an insulator, allowing for confident acceptance of risk. Chillingly, similar optimistic pronouncements have been made and dashed since the Peloponnesian War in the fifth century before Christ.⁶

The future is a volatile and uncertain place. Foreign aid, domestic support, and defense programs compete directly with one another for portions of the increasingly strained federal budget. All programs are important but from a funding point of view: if all are important, none are important. The public's relative measure of equity or inequity in program spending correlates to personal perception. If a nation does not feel imminently threatened, defense spending does not seem prudent. However, as existential threats to the government and the nation's way of life increase, so does popular support for spending on whatever will attenuate those threats. The U.S. may be nearing such a tipping point; threats to U.S. vital interests must not be allowed to outpace the U.S.'s ability to abate them.

The National Military Strategy notes that "[t]here exist in Asia two rising global powers and a large number of consequential regional powers." China and other states in Asia will continue to be more prosperous and are expected to use the economic growth to modernize their militaries and expand their interests.⁷ In 2010, China surprised the world with the unveiling of their stealth jet. Approximately two months later, China announced a 12.7% increase in their military budget making their 2011 defense budget their largest in history.⁸ To prevent regional destabilization and spiraling of conflict in the future, the National Military Strategy calls for "America's Joint Force [to] possess the reach, resolve, and ability to project decisive military power."⁹ America is presently peerless in its military prowess; assuming this will never change is both arrogant and perilous.

The Cost of Doing Business

Building and sustaining the U.S.'s strategic deployment capability is very expensive. Strategic movement assets (i.e., railcars, aircraft, and ships) compete for

defense dollars alongside of military construction programs, service member and family incentive and entitlement programs, and the military payroll. Congress and the Department of Defense have had to make tough funding decisions in the past which have contributed to a decline in the U.S.'s aggregate force projection capabilities. With the federal deficit at its highest level since World War II and anticipated to experience its largest single year increase in history, lawmakers and military leaders will have to make even more difficult funding decisions in the immediate future.¹⁰ Their decisions may further emaciate force projection capabilities, increasing the difficulty of supporting national strategies and protecting national interests.

Military program cuts are not decisions which should be made in a vacuum based on an arbitrarily derived savings target. Ideally, spending reduction should be commensurate with the reduction of potential threats to vital U.S. interests. Recent comments coming out of Washington, D.C. imply that current decreases in the defense budget may be more capricious than calculated. Secretary of Defense Robert Gates has expressed concern with the potential impact of the budget announced in February, 2011. His concern centers around the feeding frenzy atmosphere of major budget cut proposals "divorced from serious considerations of capabilities, risk, and the level of resources needed to protect this country's security and vital interests around the world."¹¹ Budget cuts affect not only weapon systems but force projection capabilities as well. Decreasing capabilities while requirements remain unchanged increases risk. Capabilities, requirements, and risk are all interrelated and determine the feasibility, acceptability, and suitability of U.S. force projection plans as illustrated by the following model.

The Dynamics of Capability, Requirement, and Risk: A Model

Logistics, first and foremost, is about employing assets as effectively as possible to create a capacity which, at a minimum, meets the requirement at hand. Logistic assets are normally tangible, finite resources which include such things as supplies, personnel, equipment, money, and facilities. These assets, in and of themselves, do not constitute capability. Capability refers to the creative employment of assets in time and space to synergize their effectiveness and create a capacity which can be applied against a requirement.

A requirement is not simply a physically definable measurement of weight or cube. Requirements, within the context of logistic support, refer to setting conditions which are most favorable to successful mission outcome. Requirements run the gamut from the tangible (e.g., “deploy a Brigade Combat Team into theater within ten days”) to the abstract (e.g., “ensure sufficient logistic capacity remains to allow for branches and sequels”).

Feasibility and acceptability are important criteria when determining viability of force projection plans. Feasibility resides in the realm of capability; either one can do something or not. Feasibility is often constrained by the measurable boundaries of time, space, and physics. Force projection is only considered feasible if it can be accomplished within those boundaries.¹²

Acceptability resides in the realm of execution. The way civic and military leaders visualize the deployment of forces directly affects the logistic capabilities required to meet their expectations. In order to be considered acceptable, force projection capabilities “must balance cost and risk with the advantage gained.”¹³

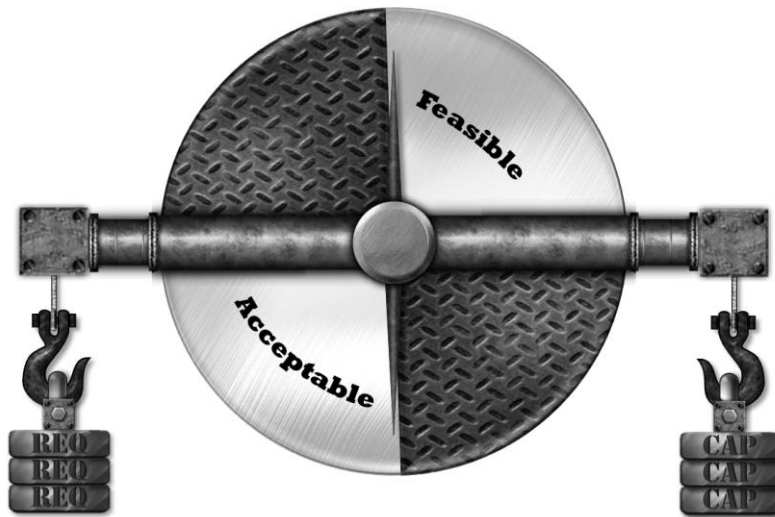


Figure 1. The minimum correlation ratio standard: “Capability Equals Requirement”

The model at Figure 1 represents the absolute minimum correlation ratio for adequate force projection support. In this instance, capabilities match anticipated requirements; this is a purely quantitative relationship. As the illustration suggests, capabilities and requirements are inextricably linked; their relative proportions being key indicators of the potential success or failure of the force projection effort.

Like a common balance scale, the beam will pivot at the center fulcrum in favor of the greater value. The dial in the center of the model is a relative indicator of the viability of successful force projection. The needles in the center of the scale’s beam are just inside the lighter toned “Feasible” and “Acceptable” portions of the dial. In mathematical terms, one may consider requirements the numerator and capabilities as the denominator. A “one-to-one” ratio indicates 100% usage of current capability; any increase in requirement would tip the balance towards the left, causing the numerator to exceed the denominator. If this were the case, the adequate support of all requirements

would no longer be feasible. The force projection timeline would be compromised and the level of support would be unacceptable.

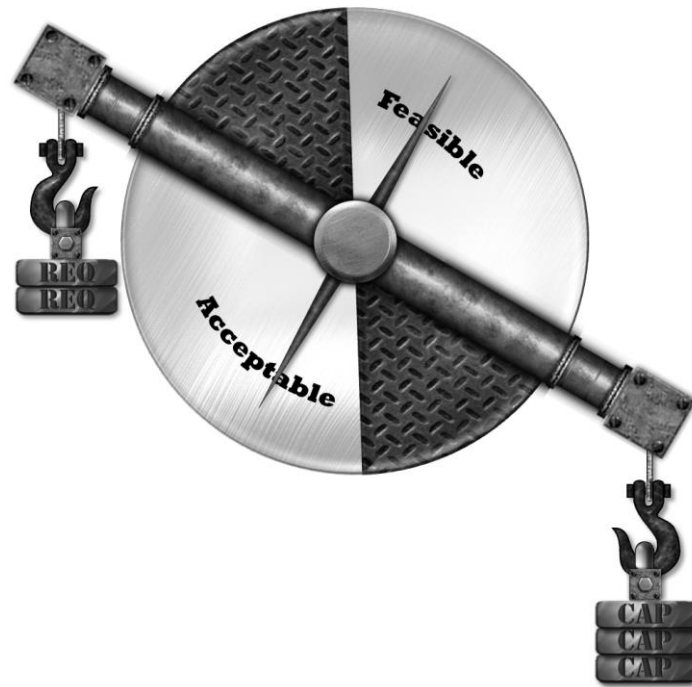


Figure 2. The preferred standard: “Capability Exceeds Requirement”

Figure 2 illustrates the preferred relationship of logistic capability to operational requirement. There is no standard requirement/capability ratio but capability (the denominator) is ideally greater than requirement (the numerator). This relationship produces a quotient of less than 1.0 (i.e., capability usage is less than 100%). When capability exceeds the requirement, force projection viability is well within the feasible and acceptable ranges.

This correlation is ideal but elusive. The “excess” capability represents logistic flexibility. Force projection capability above and beyond immediate requirements can be allocated as required to cover operational contingencies or held in reserve as a planning factor for branches and sequels. Unused capability is retained until such time

that it is needed to offset increases on the requirement side of the fulcrum. To create a correlation ratio similar to Figure 2 requires access to a substantial pool of idle logistic assets. Herein lies the rub.

The requirement for force projection and expeditionary capability is not going away any time soon; however, logisticians can expect a continued shallowing of the strategic mobility asset pool. Shortfalls in capability, and how a leader deals with them, are referred to as risk. Risk is a scalable assessment of the degree of separation between requirement and capability. The amount of risk accepted (or conversely, precaution required) has a direct and calibrating influence on the requirement/capability correlation ratio. Leaders must clearly articulate the amount of risk they are willing to accept; this guidance constitutes suitability criteria. Force projection preparations are considered suitable when they “can accomplish the mission within the [leader’s] intent and planning guidance.”¹⁴



Figure 3. Risk Directly Calibrates the Requirement/Capability Correlation Ratio

The force projection requirements depicted in Figure 3 exceed capabilities. A leader's guidance establishes limits regarding risk acceptance and deployment protraction; operating within these limits determines the suitability of the force projection proposal. If a protracted timeline is not suitable, the mission may not be feasible. If accepting less precaution is unsuitable (i.e., accepting more risk), the level of support may become unacceptable. Based on precaution and timeline adjustments to the model, Figure 3 becomes a viable requirement/capability ratio. The flexibility contained in the leader's guidance allows logisticians to carry out the deployment plan with assets the on hand.

Risk will become a bigger factor in the U.S.'s expeditionary capability planning as the budget continues to dwindle. Budget cuts and their withering effect on force projection and expeditionary capability will affect all services but will be especially significant for the Army. Perhaps Carl H. Builder summed it up best in his book *The Masks of War* when he wrote:

What is [the Army] about? It is about keeping itself prepared to meet the varied demands the American people have historically asked of it, but especially prepared to forge America's citizenry into an expeditionary force to defeat America's enemies overseas. And in this latter role, the Army accepts (with understandable unease) its utter dependence upon its sister services for air and sea transport...¹⁵

As the U.S. military grows increasingly joint and the U.S. budget grows increasingly strained, redundant capabilities will likely lose funding and this interdependence angst and risk will extend to the other services. Through all phases of force projection and expeditionary warfare (prevention, deployment, and sustainment), services must work together; no single branch can do it all.

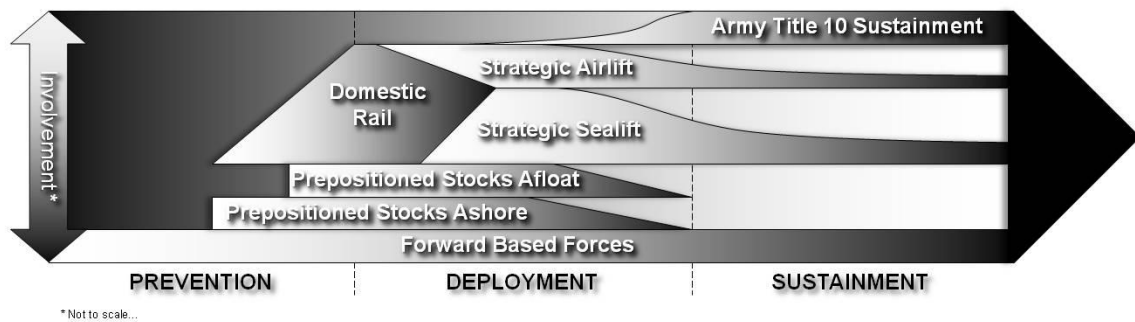


Figure 4. Force Projection and Expeditionary Land Warfare Logistics Continuum

There are seven components which are crucial in the U.S.'s ability to rapidly respond to challenges to national interests and deploy land forces anywhere on the globe (refer to Figure 4). Within the seven components and across the continuum's three phases, the services act as both providers and consumers.

Each component has a varying degree of involvement dependant upon where it lies along the continuum. The components are not mutually exclusive; each component affects every other component. A capability shortfall in one area increases the requirement in another area. The degree of separation between a component's logistical capability and its operational requirement is indicative of its relative degree of atrophy. Each component will be explored in greater detail in the following pages.

Prevention: Forward Basing of Forces

Assuming forces are stationed in the correct theater, forward basing is the most tangible form of deterrence. Of the seven continuum components, it is also the most rapid option for conflict response. However, the cumulative cost of supporting fully manned contingency forces overseas also makes this the most expensive option.

The U.S. military has made effective use of forward basing for decades. Forward basing is beneficial as it allows for near immediate response to situations requiring military presence. The physical proximity of U.S. forces in a region has a dramatically different effect on a political climate than does a promise or a threat to deploy forces. Forward basing was a significant aggression deterrent in Europe through the end of the Cold War. A strong U.S. presence in South Korea has contributed to the stability of the region and will allow for immediate military response to North Korean aggression.

Since the end of the Cold War, however, the world has become a very different place and the United States has emerged as the world's lone superpower. This change has contributed to a reexamination of the necessity to maintain large military formations overseas. United States Army Europe (USAREUR) has returned several units to the United States; as has United States Forces Korea (USFK). USAREUR and USFK have also consolidated or closed several *Kasernen* and camps. Decreased forces stationed overseas equate to increased force projection requirements within CONUS and/or an increased dependence on prepositioned stocks.

Prevention: Prepositioned Stocks

Prepositioned stocks fall into two subcategories: ashore stocks and afloat stocks. Ashore stocks are the most responsive since they are already on land, prepared for issue to inbound personnel. They are less flexible than afloat stocks, however, as they must be moved if the military presence is required in a theater other than that which currently hosts the prepositioned stocks.

Afloat stocks are the most flexible as they can be moved to different theaters as required. They are less responsive than ashore stocks as they must be moved to theater and offloaded from their sealift vessel before they can be issued to personnel.

The U.S. Army, Air Force, and Marines all employ prepositioned stocks to reduce requirements for strategic lift as well as time required to establish a credible force in theater. The Army relies heavily on this capability and has dramatically truncated its deployment timeline from receipt of “prepare to deploy” orders to “boots on the ground”. Prepositioned stocks represent a significant investment though; the equipment sets are expensive to create and maintain. In the event they are issued, they are costly to replenish.

The Third Infantry Division (3ID) drew equipment from Army Prepositioned Stocks (APS) in 2003 during Operation Iraqi Freedom I (OIF-I). The APS draw worked precisely as intended and underscored the strategic value of the program. Following 3ID’s draw, the Army endeavored to reconstitute the APS but could not complete the task.¹⁶ In 2007, before APS reset was complete, President Bush ordered the OIF troop surge. APS-3 and APS-5 stocks were issued to incoming units to expedite their entry into the theater of operations.¹⁷ A sizable portion of the APS program has been depleted. Due to ongoing conflicts and budgetary constraints, APS sets are not anticipated to be fully replenished until the close of fiscal year 2015.¹⁸

As troop levels in Iraq subside, Army leaders will gain a better appreciation of how much continuous operations have ravaged issued APS stocks. Some equipment can be repaired; the rest must be replaced in accordance with approved APS inventory lists. These inventories are currently being scrutinized; the validity of their Cold War composition has recently come into question. Additionally, the U.S. Government Accountability Office has called for “improved Joint oversight of DOD’s prepositioning

programs [to] reduce unnecessary duplication” between common Army, Air Force, and Marine stocks.¹⁹

It is too early to tell what effect 2011’s deep budget cuts will have on the APS replenishment timeline but every missing piece of equipment from the APS is another piece which must be deployed from a unit’s home station. Deploying home station equipment further burdens an already strained transportation system. The next three components comprise this transportation system.

Deployment: Domestic Rail Movement

If military equipment is not forward based or located in an APS site; it will have to be deployed from CONUS. Rail movement is often the first leg of this deployment. Deploying equipment, especially tracked equipment, is normally moved from storage sites or unit motor pools via rail to an Aerial Port of Embarkation (APOE) or Sea Port of Embarkation (SPOE) to await strategic lift. Much of this equipment must move on rail flatcars as other railcar types are unsuitable and transportation by highway is simply not pragmatic. These flatcars are limited in number and are approaching the ends of their useful lives. The military narrowly avoided a flatcar shortage crisis in 2010 but will potentially face another in 2020, 2029, and 2035 due to the imminent “retirement date” for much of the TTX Company’s flatcar fleet.²⁰

The military primarily draws from two sources of chain tie-down flatcars when shipping heavy equipment such as tanks or self-propelled artillery pieces: the Defense Freight Railway Interchange Fleet (government owned fleet “DODX”) and the TTX Company’s flatcar pool. The two sources contain nearly all of the chain tie-down cars in North America.

In the year 2000, a TTX railroad employee observed that “most of the [commercial flatcars] would reach their maximum interchange life within the next ten years.”²¹ Railcars are expensive, especially if they are rarely used. TTX does not have a large enough peacetime demand for chain tie-down flatcars to justify replacing all cars. To avert a crisis, the TTX Company overhauled and upgraded their flatcars. The flatcars can now remain in service until 2020 when they will again be considered for rebuild to extend their service for 15 more years. The TTX flatcars will have been in service 65 years by 2035- this is the maximum allowable age for a railcar; they must be removed from service at that point.²²

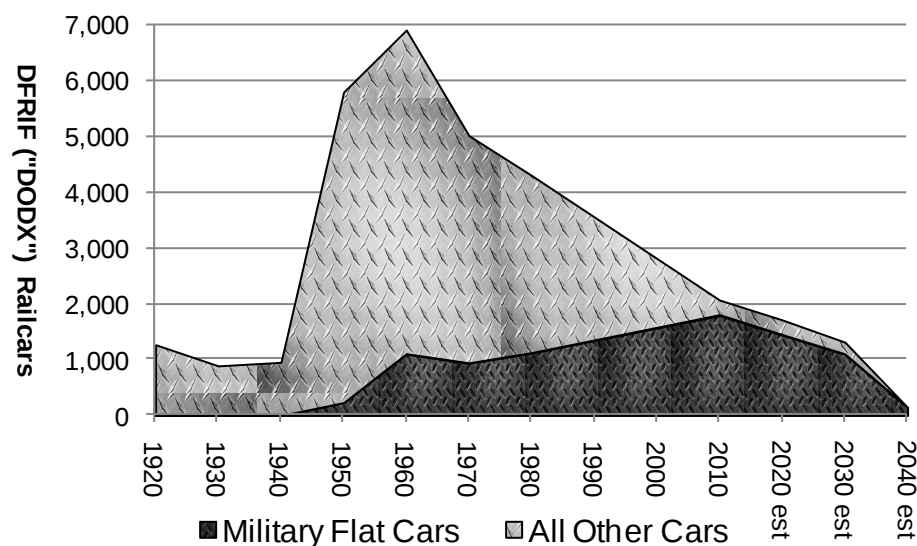


Figure 5. Defense Freight Railway Interchange Fleet Railcar Inventory²³

The Defense Freight Railway Interchange Fleet (Figure 5) has changed dramatically over the years. The current inventory is comprised mostly of chain tie-down flatcars. The last major additions to the DoD tie-down flatcar fleet were 1,000+ cars delivered from 1994-2001. Many of the older government owned DODX tie-down flatcars will reach mandatory retirement by 2029. The DODX flatcars delivered between

1994 and 2001 will begin to retire in 2034, one year before the last of the current rebuilt TTX flatcar fleet is forced out of service. If the DODX flatcars are not replaced, they must be decommissioned or placed into a costly rebuild program to extend their service lives.²⁴ Failure to address this issue may lead to a near total shut down of force projection from CONUS posts, camps, and stations.

Deployment: Strategic Airlift

Of the seven components three elements of the logistics continuum (Figure 4), strategic airlift is the healthiest. For more than a decade, the United States Air Force has systematically upgraded its strategic airlift fleet, insightfully increasing its capability while simultaneously decreasing the aggregate size of its strategic fleet.

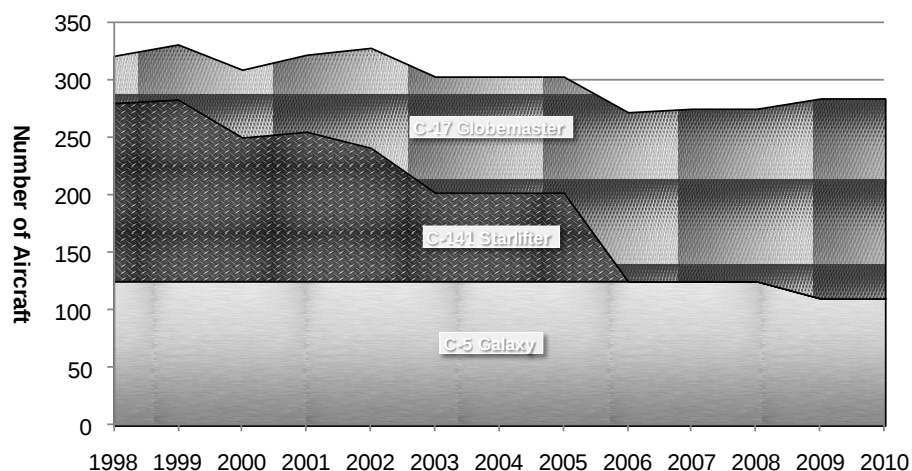


Figure 6. Strategic Cargo/Personnel Airlift Assets²⁵

Although the Air Force had more strategic lift aircraft in 1998 than in 2010, the current fleet is more capable. Providing that all aircraft are fully mission capable and all crews are available, the 1998 Air Force could move up to up to 25,840 tons in a single lift. The 2010 Air Force's single lift capability is approximately 16% greater at 29,853 tons. The fleet currently in service with the Air Force possesses a more voluminous

cargo capacity than the fleet of 1998. The total cargo hold capacity of the fleet in 1998 was 6.8 million cubic feet; the current fleet has over 10% greater capacity and can hold up to 7.5 million cubic feet of cargo.²⁶

Lift capability and cubic capacity are legitimate measures of capability but are hardly intuitive measures of merit. Two more accessible measurements are personnel and standard (88 inches by 108 inches²⁷) 463L aluminum pallet capacities. The Air Force's current fleet is comprised of much larger aircraft than 1998's fleet. Cargo transport was a primary design factor in structuring the current fleet; personnel movement was of secondary import.

In 1998, the Air Force could move up to 41,944 troops based on a single lift using 100% of the fleet. The present fleet only has the capability to move 12,123 personnel, a 71% reduction. However, the diminished personnel lift capability has been abated by a marked increase in the enrollment of commercial aircraft in the Civil Reserve Air Fleet (CRAF). Enrollment numbers are not static but current figures reflect that the CRAF has grown from 683 aircraft in 1998 to 1,376 aircraft in 2010. Of the aircraft currently enrolled in CRAF, 1,273 are international capable.²⁸

Despite a loss of personnel lift, the current fleet boasts substantially greater 463L pallet lift capacity. In 1998, the Air Force fleet could collectively lift a maximum of 10,733 pallets at once; today's fleet dwarfs that capacity by more than twice with a single lift capacity of 21,744 pallets.²⁹ Strategic airlift is the strongest element in the U.S.'s force projection suite but as a result of the relocation of forces from overseas bases to CONUS, the Overseas Basing Commission has sounded a warning that

current airlift capabilities will likely be inadequate to deal with the increased forces now required to deploy from the U.S.³⁰

Deployment: Strategic Sealift

In authoring *The Victory Plan of 1941*, Army Major Albert C. Wedemeyer determined that to deploy U.S. Forces from the United States to Europe would require approximately 1,000 vessels. Furthermore, his lengthy and detailed calculations revealed that to maintain that force would require roughly 1,500 vessels.³¹ This requirement is substantially greater than the U.S.'s current capability.

At its peak in 2001, U.S. Military Sealift Command (MSC) had 206 strategic sealift cargo ships in its inventory with access to another 327 commercial vessels.³² While many modern ships are larger than their World War II predecessors, so too are the weapons systems and sustainment packages they must carry.

In 1994, the Department of Defense conducted a study which was formally referred to as the Mobility Requirements Study Bottom-Up Review Update (MRS BURU); a portion of the data from that study is displayed in Figure 7 below. The MRS BURU indicated that the United States would potentially have to move 21.3 million square feet worth of equipment in order to “meet the sustainment demands of two nearly simultaneous major regional conflicts.”³³

The note in the lower left corner of Figure 7 below reads “shows capacities only for deploying unit equipment, excludes capacity available for transporting sustainment cargoes.” This caveat hints at a significant issue and should not be discarded as a simple footnote. Moving military equipment requires ships with specialized cargo capabilities. Although commercial shipping was abundant in the mid-1990s, roughly 70% of the vessels were container ships.³⁴ Container ships are designed to efficiently

move twenty and forty foot cargo containers and are ill-suited to move tanks, trucks, and similar materiel. Containerized shipment of cargo continues to be the trend in commercial sea transport. The construction of new container ships and reluctance to invest in contingency sealift further strains the United States' aging strategic sealift capabilities.

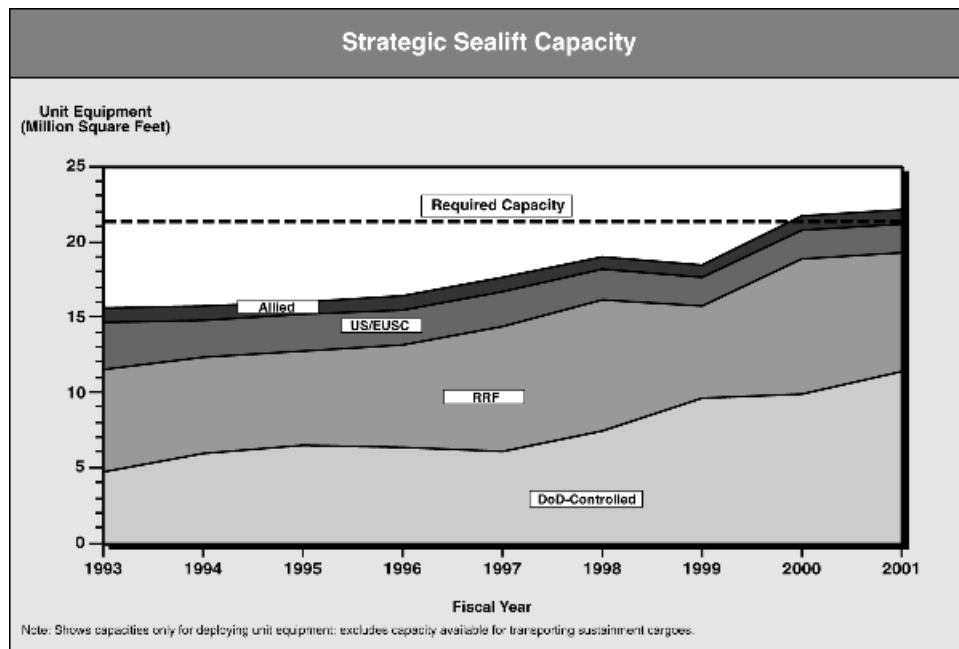


Figure 7. Required Strategic Sealift Capacity Projections from the 1996 Annual Defense Report to the President and the Congress³⁵

The 1996 Annual Defense Report addressed these shortfalls and indicated intent to close the gap between strategic sealift requirements and capabilities. The DoD projected the purchase and lease of sufficient vessels to meet this requirement by 2000.³⁶

The strategic sealift program did in fact increase its vessel count in the years following the 1994 MRS BURU but has been in decline since reaching its apogee in 2001 with 206 vessels (see Figure 8 below). The U.S. MSC's strategic sealift vessel

inventories dipped in 2002 and experienced substantial drops in 2007 and 2010. The MSC strategic sealift fleet has dropped to a mere 116 vessels; this is 51 fewer ships than it had at the time of MRS BURU in 1994.³⁷

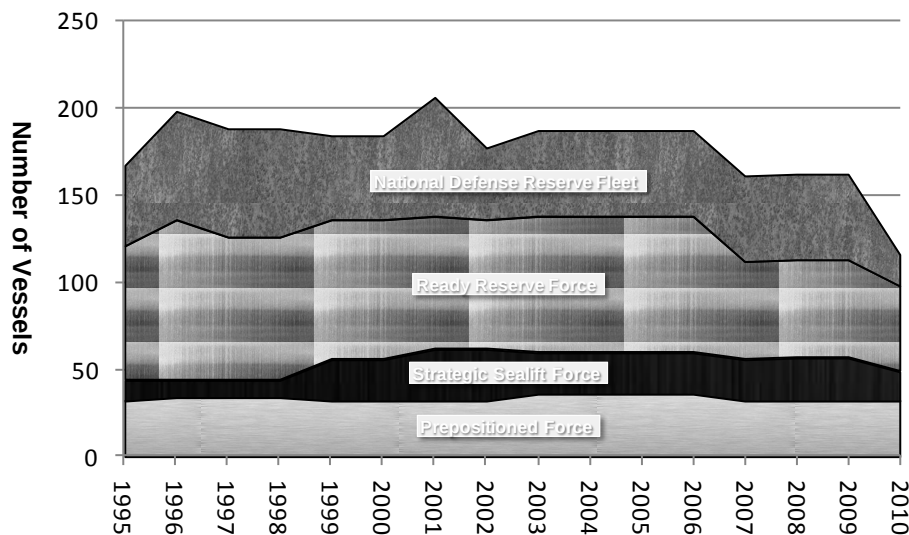


Figure 8. Military Sealift Command Strategic Sealift Vessels³⁸

Strategic sealift is vitally important to force projection since “[m]ore than 90 percent of U.S. war fighters' equipment and supplies travels by sea.”³⁹ Strategic sealift capacity is the sum of three sources; commercially contracted ships, government leased ships, and government owned ships.

Commercially contracted ships are employable based on their current locations, duration of availability, and cargo compatibility. Commercial shipping is always considered for deployments but availability uncertainty and deployment timeline constraints make it too risky to be regarded as a primary source of contingency sealift. Furthermore, the amorphous nature of commercial shipping schedules makes long term contingency planning a Gordian Knot of calculus and probability.

Government leased and owned vessels are operated by the government and include the Prepositioned Force, the Strategic Sealift Force, the Ready Reserve Force, and the National Defense Reserve Fleet. These vessels are dedicated to contingency operations but their maintenance readiness and availability are tiered.

The Prepositioned Force is already uploaded with Army and Marine ground combat equipment and allows for early response to global crises. The Strategic Sealift Force is the next tier of readiness and is available for near immediate upload. After exhausting these two sealift categories, force projection becomes protracted. The ships of the Ready Reserve Force are a subset of the National Defense Reserve Fleet and take between four and twenty days to activate.⁴⁰ The balance of the National Defense Reserve Fleet will not be available until as late as four months after the United States commits to deploying military forces.⁴¹ Tiered sealift readiness makes sense from a fiscal point of view but is dissonant with the National Defense Strategy; much can change in a theater over the months the Military Sealift Command requires to ensure the seaworthiness of National Defense Reserve Fleet. Fortune favors the swift; the longer it takes the U.S. to complete its force projection, the longer a potential adversary has to try and stop the buildup. Without ready access to strategic sealift, the U.S.'s ability to rapidly project a credible force is in peril.

Regardless of how ground forces get into theater, once they have established a foothold the focus of force projection shifts from “getting to the fight” to “staying in the fight”. Airlift and sealift assets continue supporting ground forces indirectly by transporting required supplies into theater (refer to Figure 4). Direct support of ground forces, however, falls primarily on the United States Army.

Sustainment: The Army's Capacity to Execute Title 10 Responsibilities

Title 10, United States Code charges the US Army with numerous common user logistic responsibilities to include the provision of supplies, equipment, services, and maintenance to land forces.⁴² Supporting forces in the field is very labor intensive; to properly carry out its Title 10 responsibilities, the Army requires people.

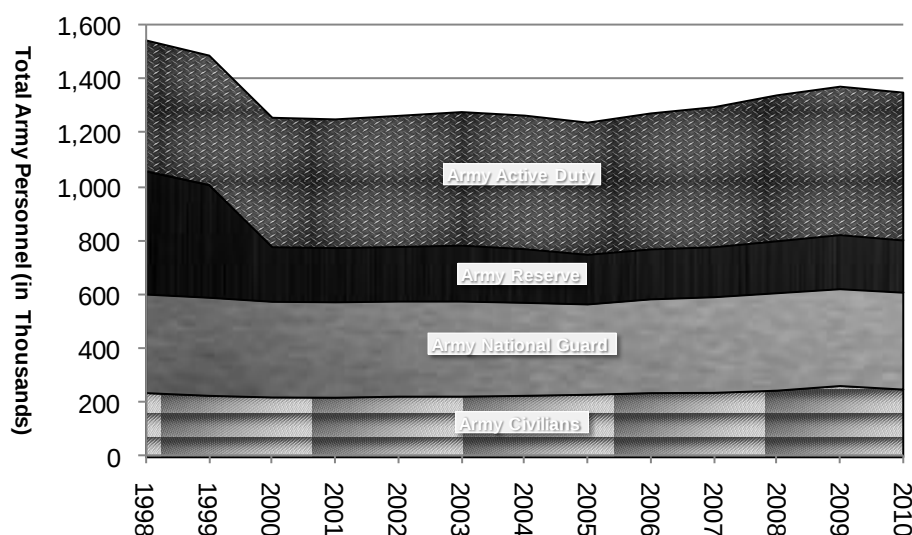


Figure 9. Combined Numbers of Army Civilians, Army National Guard, Army Reserve, and Active Duty Personnel from 1998-2010⁴³

The Army is comprised of the combined strength of four groups of people and has enjoyed its highest manning levels in a decade (Figure 9). The Army's force structure has steadily increased over the past several years in order to meet the needs of the wars in Afghanistan and Iraq. However, the rate of growth in force structure is untenable, especially in a depressed economy.

In January, 2011 the Department of Defense (DoD) announced sweeping budget cuts which are scheduled to take effect over the next five years. Budget cuts affect the different services in different ways. The coin of the realm within the Army is personnel.

In support of the proposed budget cuts Secretary of Defense Robert Gates announced that the Army will begin paring its active-duty troop levels back by 27,000 starting in 2015.⁴⁴ How the Army manages the rebalancing of its remaining force structure across its Military Occupational Specialties (MOSs) will be of tremendous consequence to its ability to properly dispatch its Title 10 requirements.

Does the Army Have the Right Force Mixture to Support Rapid Deployment?

The Army operating force is comprised of two components: the Active Component and the Reserve Component (consisting of the Army Reserve and the Army National Guard). Within each component is a proportionally varied mixture of the functional groups: Combat Service Support (CSS), Combat Support (CS), and Combat Arms (CA) MOSs. These functional groupings are also known respectively as: Force Sustainment; Operational Support; and Maneuver, Fires, and Effects.

Only 28% of the Army's logisticians are found in the Active Component (AC). Disproportionally, the balance of the AC is comprised of 58% of the Army's Combat Arms and 33% of its Combat Support soldiers.⁴⁵ This disproportional composition induces force projection risk and directly constrains the U.S.'s ability to project and sustain a credible force.

Soldiers who are not serving on active duty are not immediately available for deployment; 72% of the Army's logistic assets reside in the RC. It takes at least 30 days and up to six months to even begin moving RC personnel into mobilization stations.⁴⁶ Further complicating matters, mobilization training and certification times vary and create deployment planning turbulence of their own.

In Operation Desert Shield and Storm, a series of certification challenges with the Georgia Army National Guard's 48th Infantry Brigade (Mechanized) kept them at the National Training Center for the duration of the conflict. Similarly, the Louisiana National Guard's 256th Infantry Brigade (Mechanized) was never certified at their Fort Polk, Louisiana mobilization station and failed to deploy to the war as planned.⁴⁷ Since that time, the RC has made tremendous progress in its previous shortcomings in MOS proficiency and ability to integrate with the AC. But in spite of the RC's enhanced readiness, the cumulative time from a unit's mobilization notification and its arrival in theater is still substantial and too protracted to adequately support contingency operations and rapid force projection.

Does the Army Have the Right MOSs? There has been a trend in recent years to scale back on the number of the Army's Military Occupational Specialties (MOSs). In 1998, approximately 51% of all MOSs in the Army were logistic related. Today, that percentage has dropped to 46% and is projected to go lower in the next two years.⁴⁸

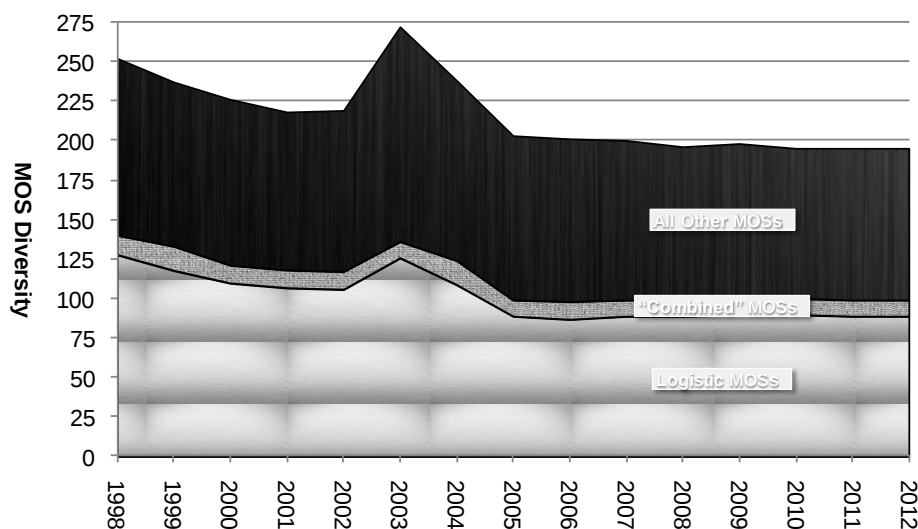


Figure 10. Composition of Army Occupational Specialties by Year⁴⁹

The graph at Figure 10 is a stacked comparison of logistic related MOSs versus all others. The spikes in 2003 and 2004 were anomalies caused by an overlap of new MOS numbers being implemented while the old ones they were replacing were still in the inventory. The spike does not indicate an increase in the diversity of MOSs, only a desynchronization of the restructure process.

Part of the depletion in MOS diversity since 1998 is attributable to skill consolidation. An example of this is the consolidation of the Abrams Tank Turret Mechanic (45E) and the Abrams Systems (hull) Mechanic into an Abrams Tank System Maintainer (63A). Skill consolidation, especially with regards to mechanics, inherently induces a degree of risk. Advocates of MOS consolidation argue that “a wrench is a wrench” and asking one generalized mechanic to do the work of two specialized mechanics should not make that much of a difference. By the same token, one could argue that a tailor and a surgeon are both professionals who use scissors, needles, and thread in their dealings with the human body. Yet, obviously, the two professional skill sets are not interchangeable. Likewise, MOS homogenization may come at the cost of MOS expertise.

Does the Army Have Enough Soldiers IN the Right MOSs? Although logistics MOSs account for approximately 46% of the Army’s jobs, the Army’s Logistics University at Fort Lee, Virginia estimates that only 30% to 40% of the Army’s soldiers are logisticians.⁵⁰ Furthermore, Army Human Resource Command MOS reclassification messages indicate that 13% of all logistic MOSs are under strength. These shortages are magnified for the ranks of Private through Sergeant; 18% of these logistic skill levels

are undermanned. These ranks are important because these soldiers are the ones who traditionally turn wrenches, drive trucks, and operate warehouses.⁵¹

In spite of the inventory minority standing of logisticians, some commanders allegedly feel too many of them count against the troop caps in Iraq and Afghanistan. In January 2011, *The Wall Street Journal* ran a story which claimed that “[t]op commanders have long sought to reduce the number of logisticians ... and increase the number of frontline troops who leave their bases on missions.”⁵² Theater troop caps are policy; Title 10 is law. If logisticians were reduced and combat troops were increased, it would simply be a quid pro quo. The requirement to provide Title 10 support would still exist; it would just have to be carried out by combat troops instead. Army sustainment convoys, or combat logistic patrols (CLPs), participating in OIF were self-securing; the logistic units provided their own convoy security in the form of gun trucks. Additionally, logistic units would provide the same support to contracted carriers transporting sustainment stocks to U.S. forward operating bases (FOBs) located throughout Iraq. If logistician numbers are reduced, it may require pulling those newly arrived “frontline” troops off of the forward line of troops to assist in the execution of the Army’s Executive Agent responsibilities.

Every service member’s contributions are important. Regardless of branch, service, and parochial bias, every MOS in every branch serves an important purpose. The challenge for senior military leaders is ensuring the numbers of service members in those MOSs and the mixture of those MOSs across the operating force appropriately supports the expeditionary warfare capability called for in the National Defense and National Military Strategies.

The U.S. military currently faces significant challenges in projecting and sustaining land forces. These challenges, however, are not insurmountable. With leadership, funding, and time the U.S. can rebuild its capabilities and be prepared to meet virtually any challenge to its vital interests in the future.

Conclusion: A Course of Treatment and the Long Road to Recovery

The atrophic state of the U.S.'s force projection capability is substantial but not irreversible. The dilapidation of the U.S.'s force projection capabilities did not happen overnight as a result of willful neglect; incremental logistic degeneration occurred as an unintended consequence of well intentioned funding decisions.

The rehabilitation of the U.S.'s force projection vitality requires vision, leadership, and commitment which extend well beyond the limitations of election and Program Objective Memorandum (POM) cycles. Treatment must be holistic and deliberate with an appreciation for the interconnected nature of strategic deployment logistics; the paragraphs that follow recommend specifics of the course of treatment.

Forward Basing of Forces. The National Defense Strategy states that “[w]e will continue to transform overseas U.S. military presence through global defense posture realignment, leveraging a more agile continental U.S. (CONUS)-based expeditionary total force.”⁵³ Global realignment should not take place divorced from an acknowledgement of its impact on the U.S.'s ability to rapidly project force. Greater amounts of materiel being deployed from CONUS over potentially greater distances require more assets and/or more time. Ignoring this quid pro quo will only worsen shortfalls in APS levels, domestic rail, and strategic airlift and sealift capacities.

Prepositioned Stocks. The United States must review its prepositioned stock lists and modify them to meet the needs of the contemporary operating environment,

not the Cold War. Once reviewed, the APS inventory must be filled as rapidly as possible. Materiel requiring rebuild as a result of heavy use in a theater must be considered for replacement if the cost of repair exceeds the cost of replacement. This may require a paradigm shift but will allow the U.S. to stretch its defense budget and potentially increase the speed at which the APS fleet is fully recovered.

Domestic Railcars. Although not imminent, another railcar crisis looms in the future. The government should fully support the TTX Company's ongoing initiatives to convert their existing general purpose flatcars to military applicable chain tie-down cars.⁵⁴ To encourage development in this niche market, the government should explore cost sharing or partial ownership/lease of future cars. A practical approach may be a joint venture with TTX in which they modernize their flatcar fleet to accept a standardized chain tie-down system and the DoD buys and maintains the chain systems. The DoD then leases a number of these railcars for contingency purposes while avoiding the high cost of ownership.

Strategic Airlift. Although airlift presently appears sufficient, increased stationing of units in CONUS will rapidly tax the current fleet. The Department of Defense must take steps to define and document the future logistics operating environment. A new MRS BURU would be immensely beneficial to the services as they grapple with articulating and mitigating logistic risk. A new report would be equally beneficial to the Congress as they struggle to understand the implications of their approval or disapproval of future airlift as well as sealift programs.

Strategic Sealift. The DoD must take a hard look at the current strategic sealift program and ensure it is structured to meet the needs of rapid force projection. There is

no equivalent capability to sealift; ships transport substantially greater weight and cube than aircraft. As commercial ship building increasingly favors container ships, MSC's maintenance, leasing, and/or purchase of large capacity medium and high speed roll-on/roll-off vessels becomes increasingly important. A shortfall in strategic sealift is a deployment stopper.

The Army's Title 10 Responsibilities. As the Army begins to draw down in 2015, leaders must ensure accurate, responsive personnel systems are in place to verify that logistics MOS fill levels are commensurate with established contingency capability objectives. Moreover, leaders must relook the distribution of those MOSs between the Active Component and the Reserve Component. The Army operating force must be rebalanced to enhance immediacy of availability and sustainability. Current MOS distribution between the components is dysfunctional at best and does not support true modular force projection.

The road to recovery for the U.S.'s ailing expeditionary warfare capability will be long and filled with many potential detours. The funding path which led to the current condition was many years in length; the road to recuperation will certainly be longer still. Lawmakers and leaders must have a clear understanding of the path ahead and must establish waypoints to guide their successors; straying off the path may bring severe consequences.

The U.S. military plays a key role in maintaining global stability. The American public's expectation of the military is codified in the National Military Strategy: "We will, on order, be prepared to respond to any attack across the full spectrum of military capabilities with an appropriate and measured response at a time and place of our

Nation's choosing."⁵⁵ The cost of restoring the U.S.'s expeditionary warfare capability will be high; the cost of not doing so will likely be higher.

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