



**STRATEGY
RESEARCH
PROJECT**

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**THE NEED FOR A STRATEGIC MOBILITY STRATEGY
FOR THE OBJECTIVE FORCE**

BY

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THE NEED FOR A STRATEGIC MOBILITY STRATEGY FOR THE OBJECTIVE FORCE

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ABSTRACT

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The 1995 Mobility Requirements Study Bottoms Up Review (MRS BURU) validated current mobility strategies that emphasized a strategic mobility triad consisting of strategic airlift, sealift, and prepositioned equipment. The Mobility Requirements Study –2005 (MRS-05) further refined mobility requirements. The Army Strategic Responsiveness Quick Look Study (#50) is an initial assessment of the Army's capability to meet the vision of deploying a combat brigade anywhere in the world within 96 hours, a combat division within 120 hours, and five divisions within 30 days. This paper will focus on the current strategic mobility strategy, how it was derived and identifies the impact of the Army's Objective Force on Strategic Mobility Strategy. I will focus on relevant studies that have formulated our current strategic mobility strategies and look at recent studies that have looked at the deployability of the interim and objective forces. The purpose of this study is to examine the differences in mobility requirements for the legacy force and the objective force, identify weaknesses in current strategy, and make recommendations that support the objective force goals. This study concludes with specific recommendations that will synchronize Strategic Mobility Strategies with the deployment of the Interim and Objective Forces.

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STRATEGIC MOBILITY FOR THE OBJECTIVE FORCE

I do not believe the current Strategic Mobility Strategies are synchronized to execute the new deployment goals outlined for the objective force. The Quadrennial Defense Review Report of September 30, 2001 describes a "rapidly deployable and sustainable force that can decisively defeat any adversary"¹. The QDR also states that military forces will, over time, be able to "swiftly defeat attacks with only modest reinforcement and where necessary assure access for follow-on forces"². It also, states that U.S. forces will fight from forward deterrent posture with immediately employable forces and rapidly deployable maneuver capabilities. In addition, the U.S. Joint Forces Command is experimenting with a new concept called Rapid Decisive Operations (RDO), which seeks to integrate each of the service's future force concepts into a joint military, inter-agency force that will seek to leverage and maximize U.S. strengths both military and other³. In the context of the above statements, very little discussion has centered on Strategic Mobility Strategies that support the Objective Force.

This paper will focus on the current strategic mobility strategy, how it was derived and identifies the impact of the Army's Objective Force on Strategic Mobility Strategy. I will focus on relevant studies that have formulated our current strategic mobility strategies and look at recent studies that have looked at the deployability of the interim and objective forces. The paper's bottom line is that any transformation to a more strategically responsive, deployable, agile, versatile, lethal, survivable and sustainable force must have corresponding change in strategic mobility strategies. The purpose of this study is to examine the differences in mobility requirements for the legacy force and the objective force, identify weaknesses in current strategy, and make recommendations that support the objective force goals.

The 1995 Mobility Requirements Study Bottoms Up Review (MRS BURU) validated current mobility strategies that emphasized a strategic mobility triad consisting of strategic airlift, sealift, and prepositioned equipment. The Mobility Requirements Study -2005 (MRS-05) further refined mobility requirements. The Army Strategic Responsiveness Quick Look Study (#50) is an initial assessment of the Army's capability to meet the vision of deploying a combat brigade anywhere in the world within 96 hours, a combat division within 120 hours, and five divisions within 30 days.

MOBILITY REQUIREMENTS STUDY BOTTOM UP REVIEW (MRS BURU)

The 1995 Mobility Requirements Study/Bottom-Up Review Update (MRS/BURU) had a dual purpose. First the analysis used computer simulations to estimate the number of planes,

sealift ships, and prepositioning sites that DOD would need to deliver military forces within a specific time line and secondly, the plan had to be affordable. Thus MRS BURU was an attempt to quantify how much risk U.S. forces might risk while keeping an eye on military objectives and on costs.⁴

The study used simulations for four scenarios set in 2001—a single major regional conflict on the Korean Peninsula, one in the Persian Gulf, a conflict in Korea followed by another in the Persian Gulf, and a conflict in the Persian Gulf followed by another conflict in the Korean peninsula. The study concluded that two of the scenarios imposed the heaviest demands on U.S. mobility forces: a single conflict in the Persian Gulf, and two conflicts in which the Korean one began first.⁵

These analyses depict three phases of a large conflict. These phases are: a halting phase to blunt an initial enemy assault, a buildup phase to increase allied power, and a counterattack phase to push back the enemy and regain lost territory.⁶

In the case of a single regional conflict in the Persian Gulf, the MRS BURU concluded that the U.S. military would face a shortfall in the amount of lift needed to deliver forces to blunt an assault and keep warfighting to an acceptable (moderate) level.⁷

For prepositioning afloat, the study recommended one heavy brigade set with supporting combat support and service support units.⁸

For land-based prepositioning, the study recommended two heavy brigade sets be located in the Persian Gulf, and that one heavy brigade set be located in South Korea.⁹

For airlift requirements MRS BURU recommended DOD procure enough airlift planes to provide between 49.4 and 51.8 million ton-mile per day theoretical airlift capacity. The administration decided to use the 49.7 MTM/D airlift capacity which justified a purchase of 120 C-17 aircraft.¹⁰

For sealift, the study called for purchasing 19 Large Medium Speed Roll-on/Roll off Ships. Of these 8 would be used for prepositioning afloat and 11 would be used for surge sealift¹¹(transporting equipment from the United States to Korean peninsula or the Persian Gulf).

ARMY STRATEGIC MOBILITY GOALS – LEGACY FORCE

A significant portion of the MRS BURU requirement was to support the Army's Strategic Mobility goals of being able to deploy light brigade to the area of operation in 96 hours, a light division in 12 days, two heavy divisions in 30 days, and 5 1/3 divisions plus combat service support within 75 days.¹²

To support this goal the Army created the Army Strategic Mobility Program (ASMP), a comprehensive program that addresses infrastructure requirements such as rail, port throughput and airfield improvements, to facilitate movement of personnel and equipment from CONUS bases to Aerial/Sea Ports of Embarkation (APOE/SPOE). Infrastructure and equipment improvements are focused at designated CONUS Power Projection Platforms that include installations, airfields, strategic seaports, and ammunition depots and plants.¹³

The ASMP has dramatically improved the Army's fort to port movement capability. It has funded improvements in infrastructure and deployability improvements at various CONUS power projection platforms (15 installations, 14 airfields, 17 strategic sea ports, and 11 ammunition plants and depots) to enhance deployment capability. The primary focus went to the contingency corps force installations (Forts Stewart, Benning, Bragg, Campbell, Hood, Bliss, and Drum) and depots (McAllister, Crane, Bluegrass, Tooele, and Anniston) that supply the first deploying divisions. Upgrades have focused on installation deployment centers, departure airfields, road networks, railheads, storage and container handling facilities, and seaports.¹⁴

STRATEGIC MOBILITY TRIAD

Any discussion of future strategies needs to start with the current strategies used in Strategic Mobility Triad: Strategic Airlift, Strategic Sealift, and Prepositioned Equipment.

Strategic Airlift. The primary workhorse for Strategic Airlift is C-17 airlifter. The C-17 is the only aircraft capable of carrying outsized cargo to, from and within a theater directly to small, austere forward airfields. There are 56 C-17s in the inventory, while 135 are authorized for procurement. MRS BURU recommended purchase of 120 aircraft, the USAF has a stated requirement for the additional 15 C-17 aircraft to replace special operations C-141 aircraft. The Air Force is reviewing a proposal from private industry for an additional 60 aircraft, while Congress has shown its support by authorizing continuation of the existing multiyear contract.¹⁵

Another aircraft is the C-141, the long-time backbone of the Air Mobility Command (AMC) fleet. These aircraft are nearing the end of their service life (2006) and are increasingly costly to operate. The 162 remaining in the inventory are being replaced by the C-17 (one C-17 to two C-141s) as they become available.¹⁶

The C-5 Galaxy, the largest airlifter in the fleet. The 126 C-5s available in the active and reserve inventories are capable of lifting any weapon system in the Army inventory. The C-5 entered the inventory in the late 1960s; its availability is a serious concern as it suffers from severe reliability and maintainability problems, as well as age on the older "A" model.¹⁷

The Civil Reserve Air Fleet (CRAF), which provides additional airlift for personnel and cargo. It is a program under which airlines (using their civilian crews) commit in-service airliners to augment military airlift during crisis situations. There are three levels of CRAF activation, with Stage III as the highest commitment. CRAF Stage I provides about 5 million ton-miles per day (MTM/D) and CRAF Stage III provides a total of 26.9 MTM/D. In addition, CRAF provides about 95 percent of passenger airlift demand. CINC TRANSCOM with the approval of the Secretary of Defense can Activate of CRAF Stages I, II and III.¹⁸

Strategic Sealift. Sealift remains the safest and most economical way to transport large amounts of heavy or outsized cargo over long distances. In a given MTW scenario, the majority of the Army's equipment and supplies will arrive by ship, while only personnel and some high-demand assets will be airlifted to the theater.¹⁹

Large, Medium-Speed Roll-on/Roll-off Ships (LMSRs). Twenty of these ships are scheduled to be procured; eight of them will be used in the prepositioning afloat fleets and the rest as transports and for surge requirements.²⁰

Fast Sealift Ships (FSSs). These eight ships belonging to the Navy are capable of transporting an entire Army armored division to any port in the world within two weeks of setting sail. They are maintained in reserve but are at a high state of readiness and can be activated rather quickly.²¹

The Ready Reserve Fleet. The ships of the RRF are civil-owned and -operated but are available to the Navy in times of emergency or crisis. Made up of 87 RO/RO, cargo, tanker and container ships, this fleet has various levels of readiness and availability depending on the type of membership with the RRF and the type of emergency. In an MTW, these ships could carry the vast majority of supplies to theater.²²

Prepositioned Cargo. The Army maintains stocks of equipment and supplies prepositioned overseas in order to speed the deployment of Army formations to likely areas of operation. Some of these sets are on shore in host countries and some are on Navy sealift ships. These prepositioned stocks include:

APS-2 in Europe with two brigade sets in North-Central Europe, one brigade set in Italy and a battalion of self-propelled artillery in Norway.²³

APS-3 afloat vessels in the Pacific and Indian Oceans aboard 15 U.S. ships. These ships carry a 2 brigade sets of equipment and a corps set of combat service support equipment, as well as 30 days' supplies for an Army corps.²⁴

APS-4 in the Pacific with one brigade set in Korea as well as sustainment stocks in Japan and Korea.²⁵

APS-5 in Southwest Asia with one brigade set in Kuwait and one brigade set and division base set in Qatar.²⁶

MOBILITY REQUIREMENTS STUDY 2005 (MRS-05)

The Mobility Requirements Study-2005 (MRS-05) further defined mobility requirements for FY05.

The Mobility Requirements Study-2005 (MRS-05), conducted over a two-year period, developed estimates of mobility requirements for FY05. The most comprehensive mobility study undertaken by DOD to date, it included the active participation of the Office of the Secretary of Defense, the Joint Staff, and Unified Command and Service staffs.²⁷

The MRS-05 study identified several areas where improvements in mobility programs are needed in order to meet the postulated 2005 threats. While pre-positioning, surge sealift, inter-theater lift capability, and CONUS transportation assets are largely satisfactory, modest improvements are required in each area.²⁸

The airlift analysis considered a wide variety of missions. First, it reviewed missions directly supporting the warfighting demands of two nearly simultaneous MTWs. From this assessment, the study identified a need for a minimum of 51.1 million ton-miles per day (MTM/D) of airlift capability. This figure includes the airlift demands associated with deployments to the two theaters, as well as support for high-priority movements within those theaters. Second, the study reaffirmed that there are likely to be other demands on the airlift system during the peak period of operations early in major theater campaigns not related to the two MTW scenarios being analyzed.²⁹

Three missions were judged to warrant highest priority as additions to the 51.1 MTM/D capability needed for major theater warfighting demands. These high priority missions conducting special operations, deploying missile defense systems to friendly nations, and supporting other theater commanders not directly engaged in the theater campaigns would yield a total airlift requirement of 54.5 MTM/D when combined with the demands associated with the MTWs.³⁰

In order to establish an airlift objective within the range defined by the analysis, and develop a program to achieve that objective, DOD will have to consider the appropriate balance between capability and risk. This will need to be accomplished in the light of overall DOD priorities, particularly in the context of refinements to the DOD strategy to be made in the 2001 Quadrennial Defense Review.³¹

Some of the conclusions of MRS-05 were that:

The sealift investments made in response to the 1995 MRS BURU have proven to be sufficient. DOD's overall mobility capability can be further augmented through aggressive use of commercial sealift enabled by selective containerization of unit equipment. However, cargo delivery requirements for two MTWs have increased by 1 million tons relative to the MRS BURU-projected amounts. Without additions to lift capability, the timelines for moving unit equipment and sustainment to both theaters would grow.³²

Additional capability is needed within CONUS to move forces and material from forts to ports. Also, capability is needed within theaters to move equipment and supplies from prepositioning sites and air/sea ports forward.³³

Host-nation support (HNS) is key to the early deployment of U.S. unit equipment and sustainment. HNS alone cannot, however, fully meet early lift requirements and thus must be augmented by U.S. mobility systems.³⁴

Operating in the face of a chemical attack would degrade the performance of mobility systems. Disruptions encountered within a theater would have ramifications for intertheater missions, delaying the delivery of unit equipment and sustainment.³⁵

OBJECTIVE FORCE GOALS

The Army goal is to deploy a brigade combat team anywhere in the world in 96 hours after lift off, a division on the ground in 120 hours, and five divisions in theater in 30 days. To be truly responsive, Army forces must be deployable and capable of quickly and rapidly concentrating combat power in an operational area. This will drive system and capability parameters. Systems must be transportable, logistics must be focused and flexible, and a culture within The Army that accepts deployment readiness as a way of life must be sustained. The Army needs support from the other Services to achieve the levels of deployability required to provide these options to the National Authorities. Objective Force units must be capable of en route mission planning and rehearsal, exercise of battle command, synchronization of combined arms, and integration into the gaining theater command during movement by air, land and sea. Objective Force units must be unburdened of significant deployment and sustainment tonnages, and must be deployable by a variety of lift platforms to include C130 profile aircraft, ultra fast shallow draft sealift, and advanced vertical and horizontal airlift.³⁶

ARMY STRATEGIC RESPONSIVENESS QUICK LOOK STUDY (#50)

The Army Strategic Responsiveness Quick Look Study (#50) was the Army's response to evolving discussion on whether the planned interim and Objective forces can meet the proposed

deployment timelines. The study's objective was to review the various studies that have preceded it and the initial findings of those still underway, summarize the consensus conclusions, and where conclusions differ, attempt to articulate the reasons for the differences.³⁷ In addition to the various scenarios used by each of the different studies, the Study 50 authors used two different scenarios. The first used the objective force in using an operations plan (OPLAN) with the PREPO equipment and the second using all other destinations with no preplanning and no preposition equipment.³⁸ The simulations looked at the introduction of various platforms such as Ultra light Aircraft (ULA's), Shallow Draft High Speed Sealift (SDHSS), and prepositioned equipment to see what effect they had on the deployment timelines.

The study 50 identified the following finding that will have bearing on any future strategic mobility strategies:

FORCE CLOSURE

Interim/objective Brigade Combat Team In 96 Hours: During the Interim Force period, the Army will significantly increase its ability to deploy an IBCT, as additional mobility assets become available. However, as a result of numerous factors, principal among them MOG and en route basing limitations, additional assets alone will not be sufficient to deploy the IBCT "anywhere in the world" within 96 hours by FY05. The Army will retain the ability to deploy either a light brigade by air or a heavy brigade using PREPO to specific locations within 96 hours.³⁹

In FY12, an Objective Brigade that is equipped with the Future Combat System (FCS), weighs 9K STONs or less, and has access to increased mobility assets (additional C-17s) may be able to deploy within 96 hours to most of the areas in the world to which it is anticipated the Army would deploy.⁴⁰

Interim/Objective Division in 120 Hours: Although this is not one of the stated Army Vision deployment goals, the Interim Division in FY10 can close the force to specific locations within 120 hours, if deployed in conjunction with PREPO; however, it cannot close anywhere in the world within the 120 hour goal. The IDIV composition and the projected airlift assets (additional C-17s) alone will not achieve a 120-hour anywhere-in-the-world capability.⁴¹

An Objective Division equipped with the FCS and using enhanced air-lift/sealift platforms may be able to close the force in approximately 180 hours to most locations where the Army may deploy. When deployed in conjunction with PREPO it may be able to deploy to specific locations within 120 hours. The ODIV composition, even when deployed using enhanced airlift

and sealift platforms, will not achieve a 120-hour anywhere-in-the-world capability. We estimate that it will be possible to deploy the division anywhere in the world in approximately 180 hours, a significant progress toward the goal in comparison to today's capability. However, when used in conjunction with PREPO, the ODIV may be able to deploy to specific locations within 120 hours. Additionally, it will be able to operate independently and to use multiple ports of entry into the theater, therefore offsetting the impact of other deployment limitations such as MOG.⁴²

Five Objective Divisions in 30 Days: In the Objective Force period (FY16), it may be possible to close five Objective Force Divisions within 30 days. This solution is predicated on procurement of additional C-17s and additional inter- and intra-theater lift assets (which may include HSS and ULAs), a reduced divisional force size and foot-print, and equipping the force with the FCS.⁴³

STUDY 50 CONCLUSIONS FOR FORCE CLOSURE

No single solution or action will ensure attainment of the objective force deployment goals. Achieving them depends on continued reductions in deployment requirements, an increase in deployment enhancements, and improvements in information technology systems. As the time to respond to crises decreases from weeks to days, the Army as well as other components of the Joint Force must continue to improve the ability to deploy rapidly. These improvements cannot focus solely on force structure changes; they must also focus on additional and enhanced lift assets to speed deployment of the force and on improved automation systems to tailor rapidly force packages.⁴⁴

Airlift assets are insufficient to meet the objective force deployment goals in a joint deployment scenario. Meeting the Army Vision goal of deploying a brigade anywhere in the world within 96 hours would require more than twice the number of C-17s that would be allocated to the Army under the current programmed acquisition of 120 aircraft (excluding 14 SOF aircraft). Although in the MRS-05, the CJCS endorsed a C-17 range of between 156 and 176 (54.5 MTM/D) as a much-needed increase in strategic lift, those numbers are not enough to meet Army Vision requirements in a Joint operational environment in which the Army competes for lift. Approximately 80 C-17s (between 230 and 250 sorties) are required to meet the Army Vision of closing an IBCT in 96 hours. Therefore, when deploying Army forces in a Joint scenario, under current DPG Illustrative planning scenarios (IPS) planning percentages, the Air Force would require in excess of 240 C-17s (with a commensurate increase in en route basing and reception airfield capabilities).⁴⁵

Future forces, such as the IBCT, were not considered in MRS-05. Accordingly, the potential exists that programming decisions will be based upon Legacy Forces. MRS-05 determined mobility requirements for the FY05 programmed force on the basis of the best information available in 1998. The Army Transformation was announced in October 1999, and the IBCTs were programmed in POM 02-07. Accordingly, the MRS-05 recommended mobility requirements do not include any of the Services' transformed forces. As a result, the potential exists that programming decisions (additional lift assets, infrastructure improvements, etc.) will be based on a force that will not exist in FY05.⁴⁶

The Army's Strategic Mobility Program (ASMP) requires adjustment if it is to support the objective force goals fully. The ASMP was developed to implement the Army requirement for deploying 5 1/3 divisions with CSS in 75 days. The ASMP significantly increased the Army's strategic responsiveness capabilities with the improvements made under this program. However, these changes were not intended to meet, and are therefore not sufficient to attain, the Army Vision's more stringent deployment goals.⁴⁷

The current force structure reference system used to identify and deploy Army units does not support the need to address unit and sub-unit capabilities. The Army's inability to identify unit and sub-unit capability impedes the warfighting CINC's ability to request the specific force capabilities required; the Army's ability to tailor force packages to meet the warfighting CINC's requirements; the deployment community's synchronization of lift assets with lift requirements; and the warfighting CINC's ability to measure force closure of required capabilities incrementally.⁴⁸

The Army and joint reception, staging, onward movement, and integration (RSOI) process do not support strategic responsiveness nor the Rapid Decisive Operations (RDO) concept of operations. While current Army RSO&I doctrine identifies the capabilities required for full spectrum dominance operations, the processes supporting RSO&I do not reflect these capabilities. The current RSO&I process is based upon building-up forces sequentially before conducting offensive operations. As the Army makes the transition through the Interim Force to the Objective Force, full spectrum, continuous operations will require RSO&I processes that can adapt easily to concurrent force deployment and employment operations.⁴⁹

STRATEGIC RESPONSIVENESS METRICS

Current metrics do not support strategic responsiveness. DOD lacks an adequate means of measuring combat effectiveness, enabler contribution (impact on throughput), and critical lift requirements. A clear definition of deployment success needs to be established. Both DOD and

the Army lack a definition of deployment success and a metric for measuring it. While the Army Vision goals call for a rapidly deployable, lethal, and sustainable force, no metric has been established to assure continuous combat effectiveness of the deployed force. In the 21st Century, the Army must deploy rapidly from CONUS forts, armories, reserve centers, depots, and forward-deployed locations and quickly reach the AO ready to conduct operations immediately as directed by the NCA. Current Army deployment metrics focus primarily on force closure of the combat element (e.g., BCT) rather than on the entire combat effectiveness equation (deployability plus sustainability and firepower). As a result, the deployed force may be combat-effective for only a short duration (the IBCT has 3 days of organic sustainment), or critical lift must be diverted from other priorities to maintain combat effectiveness. This lack of a clear definition of deployment success is further exacerbated by the Army's inability to address unit and sub-unit capabilities, and thus to design combat-effective deployment packages. An IBCT deployed to anywhere in the world in 96 hours may not be the true measure of effectiveness.⁵⁰

DEPLOYMENT ENHANCEMENTS

The Study 50 recommended several deployment enhancements in advanced lift technologies, Intermediate Staging Bases (ISBs), enroute basing, PREPO enhancements, revised doctrine, processes, and strategies needed to support the objective force deployment goals.⁵¹

Advanced lift technology

There is no centralized management for DOD Strategic Mobility Science and Technology (S&T) efforts. DOD lacks a centralized S&T effort for tracking, evaluating, prioritizing, and funding strategic-responsiveness-enabling technologies.⁵²

Advanced lift technologies provide potential for significant improvements in the Army's ability to meet its Vision deployment goal of closing a division anywhere in the world within 120 hours. Although advanced lift technologies are a necessary element in meeting the Army Vision 120-hour goal, there is currently no strategic High Speed Sealift (HSS) requirements document or mission needs statement (MNS). It is highly unlikely that enough C-17s will be procured to close a division in 120 hours. Furthermore, even if they were to be procured, enroute infrastructure and MOG limitations would prevent the goals from being achieved. Although projected advanced lift technologies may not meet the 120-hour requirement, they may enable closure of a division in approximately 180 hours.⁵³ The difference between the 180 closure and 120 hour requirement goal is only 60 hours. Perhaps the initial IBCT can be made more self

sustaining or augmented with airpower so that it can sustain itself the additional 60 hours prior to the arrival of remaining IDIV division.

Programmed sealift vessels (LMSR ships/FSSs/RRF RO/RO ships) alone cannot meet two key components of the Army Vision and Joint Vision 2020: the capability to deploy forces rapidly (120-hour goal) and the ability to mitigate an opponent's anti-access strategy by possessing an austere-entry capability. Further, the U.S. maritime industry's ability to provide a sufficiently robust contribution to meeting DOD deployment requirements is questionable. Accordingly, government development of advanced in-stream/ underway discharge, sea state 3 (SS3) capability, and more robust de-graded port capabilities, using emerging doctrine incorporating lift platforms such as SDHSS, must continue in earnest in order to meet the rapid-deployment and austere-entry requirements. SDHSS and these other efforts would augment, not replace, the LMSR ships.⁵⁴

ULAs which use lighter than air technology similar to the well known "Good Year Blimp" can provide additional airlift capacity. These ULAs include Cargo Lifter 160 and Sky Cat 1000 which offer the opportunity to introduce an outsize-cargo capability into a CRAF-like program. These ULAs enable the CINC to avoid the use of conventional SPOEs and SPODs and to overcome MOG and en route basing concerns by rapidly moving the forces directly from the port to the combat zone. Properly designed, they can carry oversize or outsize, fully assembled or minimally disassembled, military equipment items (e.g., helicopters) that other commercial aircraft cannot. If ULAs are available through a CRAF-like program in sufficient numbers and early enough in the deployment, they can contribute to moving selected equipment forward and help attain the Army Vision 96-hour and 120-hour goals.⁵⁵ Commercial variants of ULA will enter commercial service within the 5 years and that within 10 to 15 years the commercial ULA fleet will be large enough that a portion could be available to DOD under a CRAF like program.⁵⁶

Intermediate staging base and en route basing

Use of an ISB provides flexibility in employment and theater logistics support. The benefits derived from integrating ISB capabilities into contingency planning will have a positive effect on meeting Army Vision deployment goals and the Transformation objective of a reduced logistics footprint in the combat zone. (The full impact of externally provided infrastructure will be driven by local conditions and must be determined through site surveys.) Further, establishing of permanent ISBs or modifying of existing bases to support forces in various regions of the world may result in force structure savings and more rapid deployments, since the selected capability will already be in place. Additionally, Joint ISBs offer the opportunity to assign Service

responsibility and normalize Service support forces, reducing the demand on early lift and maximizing integration of the Joint Force in a contingency. However, further study is required to determine the locations, composition, and capabilities of future ISBs and the additional overhead requirements.⁵⁷

Adequate en route basing and destination Maximum on the Ground (MOG), the maximum number of planes that can be on a particular airfield, are essential to meeting the Army Vision deployment goals. The drawdown of U.S. forces from overseas locations has significantly reduced DOD's en route basing locations and OCONUS infrastructure. As a result, en route operating and support must be established to facilitate deployment of U.S. forces. In the area of operations, DOD's ability to close forces is further restricted by the available MOG. Unless the MOG at the destination APOD(s) is equal to or greater than the MOG required to deploy the force at the departure APOE, the force cannot close in the required time frame (96/120-hour goals).⁵⁸ This situation will require additional airfields and the burden of additional support troops.

Prepositioning and forward stationing strategy

Today's armored heavy force structure and support requirements for the IBCT and the Objective Force make PREPO—at least for the foreseeable future—an essential element in crafting any solution to improve Army strategic responsiveness.⁵⁹

As the Army's transformed force becomes lighter and more rapidly deployable, advanced lift platforms (which may include ULAs and HSS) may affect the types and quantities of equipment and supplies that are moved today by current airlift and sealift assets as well as the composition of PREPO. However, further study of the Army's prepositioning program is required to determine the proper mix of equipment and/or sustainment.⁶⁰

PREPO ashore and afloat both have limitations. Ashore PREPO has restricted flexibility. It is subject to host nation political considerations that may preclude its availability. Without early warning, several days to weeks may be required to have either afloat or ashore equipment in place. Both ashore and afloat PREPO are vulnerable to interdiction and destruction.⁶¹

The Army Watercraft Restructuring Concept Plan will provide a more robust MTW/SSC capability and improve global responsiveness by forward stationing and positioning watercraft. Moreover, the Army's high-speed sealift TSV program has the potential to improve substantially the Army's strategic responsiveness capabilities through its coordinated use with afloat prepositioned ships and intermediate staging bases.⁶²

WEAKNESSES OF THE CURRENT STRATEGY

Congressional Budget Office Study: Moving U.S. Forces: Options for Strategic Mobility, February 1997.

This CBO study identified several areas of concern regarding the 1995 MRS BURU

Decisions on future conflicts will be made in a timely fashion. It assumes that decision makers will receive unambiguous warnings and act upon that to make a decision to commence deployment.⁶³

Availability of reservists to crew planes and ships, maintain equipment, and help establish DOD's Transportation network. It assumes that a decision to activate reserve units and personnel would be done early enough to support a rapid deployment.⁶⁴

Early access to commercial planes and ships. An optimistic view that civilian aircraft would be available early for Stage II and Stage III activations. An assumption that only U.S. flag ships would be used to move initial surge cargo to the theater. This was contrary to Desert Shield history in which DOD relied extensively on both U.S.-and Foreign flag charter vessels.⁶⁵

Optimistic assumption on access to infrastructure, such as enroute and staging bases to support airlift operations. Because of the distances involved in deployments from CONUS to either the Southwest Asia or to Korean Peninsula, the USAF uses enroute bases to refuel airlift planes and change aircrews enroute. Any constraint on availability of such bases could delay airlift operations.⁶⁶

Optimistic assumption that the Navy would not need to clear mines from ports or strategic choke points before sealift ships could complete their deliveries.⁶⁷

Optimistic assumption that there will be a sufficient time period between two major regional contingencies. Without sufficient separation between two conflicts then planned sealift requirements would be insufficient and there would be insufficient time to regenerate the Army's afloat Prepo equipment.⁶⁸

PROBLEMS MEETING THE INTERIM AND OBJECTIVE FORCE DEPLOYMENT GOALS

Study 50 identified the following weaknesses in attempting to meet the objective force goals with current strategic mobility assets and concepts.

Maximum on Ground (MOG) and enroute basing limitations will prevent the IBCT/OBCT from deploying "anywhere in the world" within 96 hours by FY05.⁶⁹

Current programmed airlift assets are insufficient to meet objective force deployment goals in a joint deployment scenario. There are not enough C-17s aircraft to deploy an OBCT to

anywhere in the world in 96 hours. The current 120 C-17s (based upon the MRS BURU) will not support deployment of OBCT if it must compete with other services for airlift.⁷⁰

Current programmed sealift vessels such as LMSR's, FSSs, RRF RORO ships, cannot meet objective force goals of deploying an ODIV in 120 hours and mitigate an opponent's anti-access strategy by possessing an austere-entry capability.⁷¹

The Army Objective force was not considered in MRS-05. Any future strategic mobility asset programming decisions will be based upon legacy forces.⁷²

The current RSOI process is based upon building up forces sequentially before conducting offensive operations.⁷³

IMPACT OF THE 2001 QUADRENNIAL DEFENSE REVIEW ON STRATEGIC MOBILITY

In addition to the problems identified in the above 1997 CBO report and other issues identified in the Study 50, the 2001 QDR identifies a major shift in national military strategy that will have a significant impact on our Strategic Mobility Strategies.

Shift from threat based strategy to capabilities based strategy (QDR 2001). The new strategy is to build a portfolio of capabilities that is robust across the spectrum of possible force requirements, both functional and geographical.⁷⁴ The U.S. is not abandoning the two overlapping major theater war planning scenario but is changing the concept to planning for victory across the spectrum of possible conflict.⁷⁵ The QDR further states "For planning purposes, U.S. forces will remain capable of swiftly defeating attacks against U.S. allies and friends in any two theaters of operation in overlapping time frames."⁷⁶ The impact of this on current mobility strategy is enormous as planners need to be able to deploy to other theaters besides Korea and Persian Gulf.

Emphasis on a deter forward strategy. The QDR states that overtime, U.S. forces will tailored increasingly maintain favorable regional balances in concert with U.S. allies and friends with aim of swiftly defeating attacks with only modest reinforcement and, where necessary, assuring access for follow-on forces.⁷⁷ Four of the six IBCTs will be stationed in CONUS. One will be stationed in Hawaii and another will be in Alaska. Furthermore, the 2001 QDR says that in consultation with its European allies that an IBCT be stationed in Europe by 2007.⁷⁸ How these IBCTs stationed in CONUS will support the Deter Forward Strategy is to be explained.

As part of the QDR's reorientation of the U.S. military global posture, the U.S. military will: Redistribute forces and equipment based on regional deterrence requirements.⁷⁹

Provide sufficient mobility, including airlift, sealift, prepositioning, basing infrastructure, alternative points of debarkation, and new logistical concepts of operations, to conduct

expeditionary operations in distant theaters against adversaries armed with weapons of mass destruction and other means to deny access to U.S. forces.⁸⁰ MRS BURU and MRS-05 used scenarios focused only on the Korean peninsula and Persian Gulf. Accordingly, the strategic mobility triad has been focused primarily in support of those areas.

In the QDR one of the six critical transformational goals for transformation is the ability to project and sustain U.S. forces in distant anti access and area denial environments.⁸¹ Future adversaries could have the means to render ineffective much our current ability to project military power overseas.⁸² Therefore, new approaches for power projection must be developed to meet these threats. Previous mobility studies have taken very optimistic view on the availability of enroute and theater infrastructure capability.

Furthermore the QDR defense strategy rests on the assumption that U.S. forces have the ability to project power worldwide. The United States must retain the capability to send well-armed and logistically supported forces to critical points around the globe, even in the face of enemy opposition, or to locations where the support infrastructure is lacking or has collapsed. For U.S. forces to gain the advantage in such situations, they must have the ability to arrive quickly at non-traditional points of debarkation to mass fire against an alerted enemy and to ask their own movements to deceive the enemy and bypass its defenses.⁸³

The QDR emphasizes the need for new investments that would enable U.S. forces to defeat anti-access and area-denial threats and to operate effectively in critical areas. Such investments will include:....accelerating development of the Army Objective Force; enhancing power projection and forcible entry capabilities; ...enhancing protection measures for strategic transport aircraft; and ensuring U.S. forces can sustain operations under chemical or biological attack.⁸⁴

As you can see in the above discussion, the 2001 QDR changes a lot of the previous assumptions used in the past studies such as MRS BURU and MRS-05. Both these studies were the basis for justifying the current Strategic Mobility Strategy as described in the Strategic Mobility Triad. These studies would validate the need for C-17 airlifters, LMSR vessels, and specific prepo locations.

PROPOSED SOLUTIONS

Our current deployment strategies are not synchronized with the Army Vision, evolving strategies such as Rapid Decisive Operations, and the 2001 QDR . Current deployment strategies and programming decisions were based upon a 1995 MRS BURU that focused on only two MTW scenarios. It took the most optimistic assumptions on availability of lift,

infrastructure, and enemy access/denial actions. The current deployment strategies, as evidenced by the current strategic mobility triad do not support DOD's and Army's new transformational goals and objectives.

In view of the obvious lack of a Strategic Mobility Strategy that supports the Objective Force, I propose that DOD take ten actions to synchronize our future Strategic Mobility Strategy with the advent of the Objective Force and RDO concept:

The Department of Defense should conduct another Mobility Requirements Study, using available data on the objective force to identify mobility requirements. In addition to the lift requirements, the new study should use the proposed basing locations of the IBCTs/OBCTs.

That DOD use realistic assumptions in its simulations that take into account possible enemy access and denial actions. For example in a Korean MTW scenario the simulation could assume that fixed ports such as Pusan and Chinhae would be denied use due to enemy activity thus forcing U.S. forces to look at possible JLOT operations on the Korean peninsula.

That JCS and services reevaluate its mobility strategy in view of certain 2001 QDR recommendations. The proposed deter forward strategy would place a heavy emphasis on forward deployed forces and their ability to defeat enemy forces with minimal reinforcement. The current mobility strategy emphasizes massive reinforcement from CONUS.

The objective force stationing plan needs to be reevaluated in view of the QDR's Deter forward strategy. This strategy places a heavy emphasis on forward deployed forces defeating enemies with minimal reinforcement. Four of the newly identified IBCTs are located in CONUS, one in Hawaii and one in Alaska. The QDR recommended one IBCT be stationed in Europe.

DOD fund development and testing of alternative lift strategies such as SDHSS and ULA. The Study 50 simulations and other simulations show definite force closure improvements if these means are used in conjunction with other standard lift platforms such as C-130s, C-17 aircraft, LMSR vessels, etc.

That DOD reevaluates its requirement for C-17 aircraft. The objective force seems to be a primarily air deployable force because of the speed needed to meet its new deployment standards. Acquisition of additional C-17 aircraft may not improve overall speed of deployment if the destination airfields have limited MOG restrictions.

That DOD recognize the importance of JRSOI and RSOI, in the strategic mobility strategies by adding it as pillar of equal importance as Strategic Sea lift, Air lift, and prepositioned cargo. Moving equipment and personnel quickly is only one dimension of the strategic mobility equation. If the equipment and personnel cannot be linked at destination then the Army Vision will not be met.

That DOD develop an integrated strategy on use of ISB's, and infrastructure use in the overseas theater. The DOD must recognize the advantages and flexibility that ISBs offer and the critical role that overseas infrastructure plays in deployment.

That DOD should reevaluate its prepositioned cargo policies and strategies. The MRS BURU strategy placed exclusive look at fight a war only on the Korean peninsula and the Persian Gulf. Current prepo equipment is based entirely on legacy equipment. A plan needs to be developed that addresses the mix of equipment between legacy, interim and objective forces. A strategy on how and if prepositioned equipment will support the objective force needs to be developed.

The Joint Forces Command, take the lead through its Joint Deployment Process Office (JDPO) in developing strategic mobility strategy that incorporates the services transformation goals. JFCOM already is responsible in developing the RDO concept and would be the perfect organization to develop a joint strategic mobility strategy that supports truly transformed and joint force.

If these ten actions are adopted it will go a long way towards creating a synchronized Strategic Mobility Strategy that supports the Objective Force.

CONCLUSION

Much discussion has been made on the new objective force deployment goals. Funding for the objective force and doctrine are moving out at rapid pace. One would think that the Army would develop an equally transformational strategic mobility strategy.

The October 1999 announcement of the Army Vision and the new deployment goals will affect all those involved in the deployment process. A lighter force does not necessarily equate to a more deployable force. A faster timeline for deployment will mean an increased emphasis on the faster modes of transport.

Current mobility strategies were based upon mobility requirements studies that planned for two near simultaneous major theater wars in the Korean Peninsula and the Persian Gulf. Planning assumptions were very optimistic in both cases. Accordingly, budget and programming decisions were made that built the strategic mobility triad – airlift, sealift, and prepositioned equipment. The Army established the ASMP to help it meet the then Army's goal to deploy a light brigade in 96 hours, a light division in 12 days, 2 heavy divisions in 30 days, and 5 ½ divisions with combat service support within 75 days.

DOD's transformation goals and the 2001 QDR recommendations will have far reaching impact upon our deployment strategies. Current investments in prepositioned equipment,

acquisition of airlift and sealift will be insufficient to meet the new timelines and the new “capabilities-based” defense strategy.

As we transition to the objective force we will have mixture of forces, legacy, interim, and objective in the inventory. The evolving strategic mobility strategies will have to incorporate the different mixes of forces using a variety of lift platforms.

I have drawn heavily upon Logistics Management Institute’s (LMI) Army Strategic Responsiveness Quick Look Study (#50) as I believe it provides single convenient source of current strategic mobility studies and provides a framework to evaluate future strategic mobility strategies.

The leadership of our nation, both military and civilian, will have the opportunity to shape our strategic mobility posture to support the new defense strategy. A new mobility requirements study will need to be done using realistic scenarios with valid assumptions. New lift platforms, strategies, and concepts will need to be developed. At stake is our credibility as a superpower.

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ENDNOTES

¹ Donald H. Rumsfeld, Quadrennial Defense Review Report (Washington, D.C.: The Pentagon, September 2001) 12.

² Ibid., 20.

³ Emily Clark, "A Path Toward Transformation: A Conversations with Gen. Charles E. Wilhelm, USMC (Ret.)," 10 January 2002; available from <<http://home.je.jfcom.mil/PAOFactSHT/MC02.htm>>. Internet accessed 14 February 2002.

⁴ Congressional Budget Office, CBO Study, Moving U.S. Forces: Options for Strategic Mobility (Washington, D.C.: U.S. Congressional Budget Office, February 1997), 51.

⁵ Ibid.

⁶ Ibid., 5.

⁷ Ibid., 51.

⁸ Ibid.

⁹ Ibid., xv

¹⁰ Ibid., 52.

¹¹ Ibid., xv.

¹² Ibid., 79.

¹³ "Strategic Mobility & Responsive Power Projection," AUSA Report (December 1999): 4.

¹⁴ Rebecca H. Caprano et al., Army Responsiveness Quick Look Study (#50) (McLean, VA: Logistics Management Institute, 2001), 1-7.

¹⁵ "Strategic Mobility & Responsive Power Projection", 10.

¹⁶ Ibid.

¹⁷ Ibid., 11.

¹⁸ Ibid.

¹⁹ Ibid., 9.

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

²³ Ibid., 8.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Caprano, 2-5.

²⁸ Ibid.

²⁹ Ibid., D-3.

³⁰ Ibid.

³¹ Ibid.

³² Ibid., D-4.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Department of the Army, Concept Paper for the Objective Force (Washington D.C.: U.S. Department of the Army), 9.

³⁷ Caprano, 1-2.

³⁸ Ibid., 3-2.

³⁹ Ibid., 4-2.

⁴⁰ Ibid., 4-3.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ibid., 4-4.

⁴⁶ Ibid.

- ⁴⁷ Ibid.
- ⁴⁸ Ibid.
- ⁴⁹ Ibid., 4-5.
- ⁵⁰ Ibid., 4-6 to 4-7.
- ⁵¹ Ibid., 4-8.
- ⁵² Ibid., 4-9.
- ⁵³ Ibid.
- ⁵⁴ Ibid.
- ⁵⁵ Ibid.
- ⁵⁶ Ibid., 0-2.
- ⁵⁷ Ibid., 4-10.
- ⁵⁸ Ibid.
- ⁵⁹ Ibid.
- ⁶⁰ Ibid.
- ⁶¹ Ibid.
- ⁶² Ibid., 4-11.
- ⁶³ Congressional Budget Office, 89.
- ⁶⁴ Ibid., 90.
- ⁶⁵ Ibid., 91.
- ⁶⁶ Ibid.
- ⁶⁷ Ibid.
- ⁶⁸ Ibid., 92.
- ⁶⁹ Caprano, 4-2.
- ⁷⁰ Ibid, 4-4.
- ⁷¹ Ibid, 4-9.

⁷² Ibid, 4-4.

⁷³ Ibid, 4-5.

⁷⁴ Rumsfeld, 17.

⁷⁵ Ibid, 18.

⁷⁶ Ibid, 21.

⁷⁷ Ibid, 20.

⁷⁸ Ibid, 27.

⁷⁹ Ibid, 26.

⁸⁰ Ibid.

⁸¹ Ibid, 43.

⁸² Ibid, 31.

⁸³ Ibid, 43.

⁸⁴ Ibid, 44.

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