

USAWC STRATEGY RESEARCH PROJECT

ASSURED MOBILITY INTEGRATING AND STRATEGIC IMPLICATIONS

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This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

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U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 30 MAR 2007		2. REPORT TYPE Strategy Research Project		3. DATES COVERED 00-00-2006 to 00-00-2007	
4. TITLE AND SUBTITLE Assured Mobility Integrating and Strategic Implications				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Nola Johnson				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT See attached.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 24	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

ABSTRACT

AUTHOR: Dr. Nola Rebecca Johnson
TITLE: Assured Mobility Integrating and Strategic Implications
FORMAT: Strategy Research Project
DATE: 26 March 2007 WORD COUNT: 5,564 PAGES: 24
KEY TERMS: Concepts, Capabilities, Joint Functions, Warfighting Functions
CLASSIFICATION: Unclassified

This project researches the 'concept' Assured Mobility and proposes doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) integrating aspects and strategic implications. Covered is a fundamental understanding of the development of concepts and their utility; that being concepts are developed from overarching joint operating and functional concepts from which warfighting functions and capabilities are derived and DOTMLPF requirements identified. The concept Assured Mobility is addressed, which at an Army tactical and operational level is mostly aligned with the warfighting functions of Protection, and Movement and Maneuver, with DOTMLPF implications identified. The relevance of Assured Mobility is outlined, with a key vulnerability being anti access, and strategic level implications are identified. Finally, the paper proposes that Assured Mobility should be further developed for the strategic level, that it more fully aligns with the Joint Protection Function, and identifies some DOTMLPF recommendations.

ASSURED MOBILITY INTEGRATING AND STRATEGIC IMPLICATIONS

This project researches the 'concept' Assured Mobility and proposes doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) integrating aspects and strategic implications. The importance of the development of concepts is they link strategic guidance to the development and employment of future force capabilities. The critical function of concepts is that they serve as "engines for transformation" that ultimately lead to the identification of possible DOTMLPF changes or gaps and policy changes.¹

The paper is organized into three sections. The first outlines a fundamental understanding of the development of concepts and their utility – that being concepts are developed from overarching joint operating and functional concepts from which warfighting functions and capabilities are derived and DOTMLPF requirements identified. The second section discusses the concept Assured Mobility and how at an Army operational level it is mostly aligned with the warfighting functions of Protection, and Movement and Maneuver, and discusses potential refinements and DOTMLPF implications. Finally, the last section proposes that Assured Mobility should be further developed for the strategic level, that it more fully aligns with the Joint Protection Function, and identifies some DOTMLPF recommendations.

First we will review the development of 'concepts.' With the guidance from the National Defense Strategy, Quadrennial Defense Review, and National Military Strategy, services have been transforming from a threat based model to a capabilities-based model, which is being used for joint force development. Concepts are developed using these top-level strategic guidance documents to identify future capability requirements. Concepts define required capabilities, which in turn allow services to determine DOTMLPF requirements necessary to execute those capabilities. Services are provided Joint Operations Concepts which provides the overarching description of how the future Joint Force will operate across the entire range of military operations. It is the underlying framework for developing subordinate Joint Operating Concepts (JOCs), which describe the attributes and capabilities required of the joint force, and Joint Functional Concepts (JFCs) which integrate a set of related tasks to attain the capabilities required.² A supporting concept is a description of how a task or procedure is performed within the context of a broader functional area using a particular capability, (that is a specific technology, training/education program, organization, or facility). Through the development of supporting enabling concepts, the services further refine and characterize with more clarity those required capabilities.

Figure 1 shows the linkages between Joint Operating, Functional, and Integrating Concepts. Likewise, Figure 2 shows how these Joint concepts have been incorporated into

Army Operating and Functional Concepts and the derived Army Warfighting Functions; with respective integrating centers.

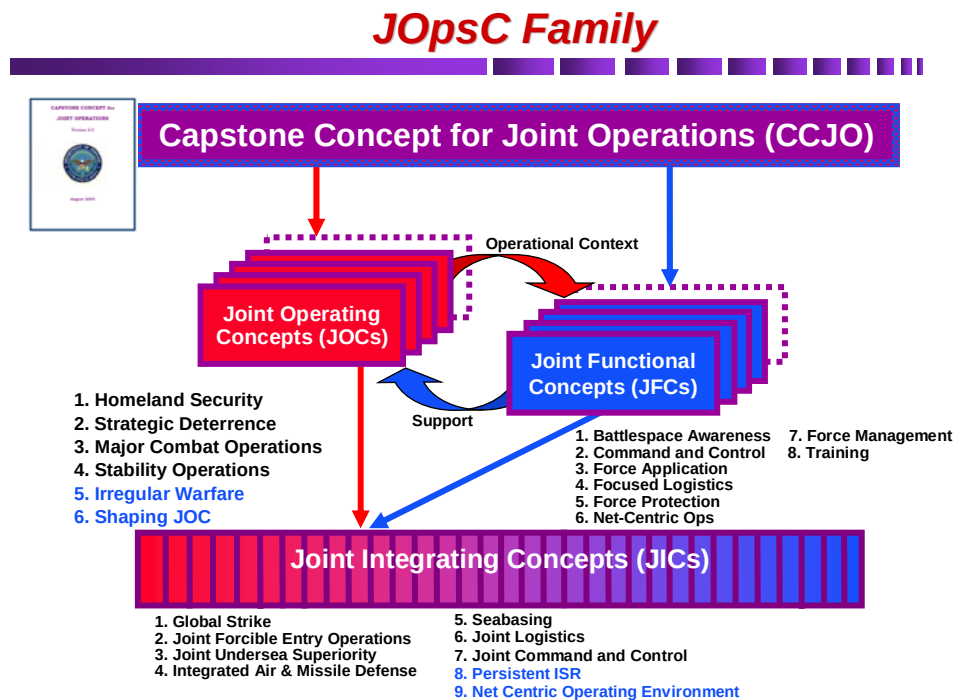


Figure 1 : Joint Operating, Functional and Integrating Concepts³

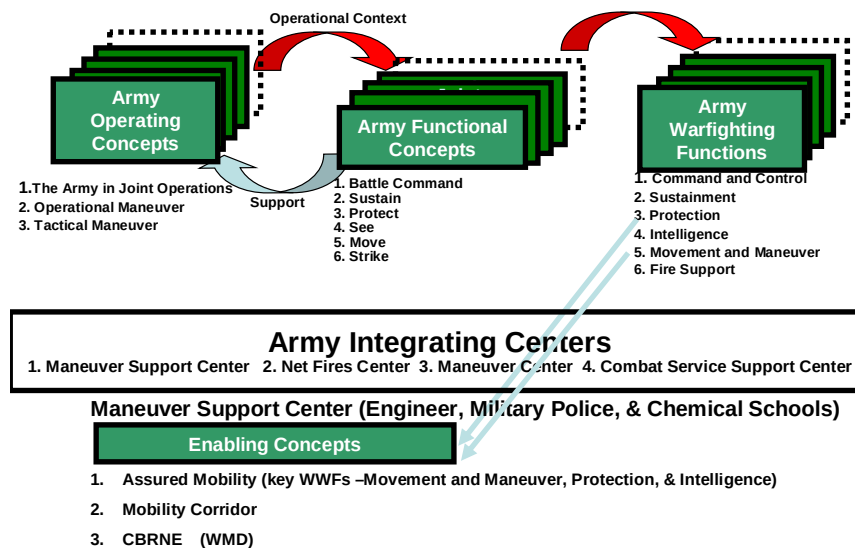


Figure 2: Army Operating & Functional Concepts, Warfighting Functions, and Integrating Centers.

As depicted, Joint Functions that are common to joint operations at all levels of war fall into the six basic groups – command and control (C2), intelligence, fires, movement and maneuver, protection, and sustainment. A number of subordinate tasks, missions, and related capabilities help define each function, and some tasks, missions, and capabilities can apply to more than one joint function.⁴ Some functions, such as C2 and Intelligence, apply to all operations. Others, such as fires, apply as required by the mission. A brief definition of Assured Mobility is the execution of proactive actions that guarantee the force the ability to deploy, move, and maneuver, by ground or vertical means, where and when desired, without interruption or delay, to achieve the mission.⁵ And, as will be discussed throughout this paper, the majority of the Assured Mobility tasks fall under the Joint functions of Protection and Movement and Maneuver.

The Protection function focuses on preserving the force's potential in four primary ways – *active defensive measures* that protect the force, physical assets, its information and lines of communication (LOCs) from attack; *passive defensive measures* that make friendly forces and assets difficult to locate and strike; *applying technology and procedures* to reduce fratricide; and *emergency management and response* to reduce the loss of personnel and capabilities due to accidents, health threats, and natural disasters. The Protection Function encompasses a number of tasks, including:

- Providing air, space, and missile defense
- Protecting noncombatants
- Providing physical security for forces and means
- Conducting defensive countermeasure operations, including counter-deception and counterpropaganda operations
- Providing chemical, biological, radiological, and nuclear (CBRN) defense
- Conducting OPSEC, computer network defense, IA, and electronic protection activities
- Securing and protecting flanks, bases, base clusters, JSAs, and LOCs
- Conduct PR operations
- Conducting CBRNE counter measures
- Conducting antiterrorism operations
- Establishing capabilities and measures to prevent fratricide
- Provide emergency management and response capabilities and services.⁶

The Movement and Maneuver function is related to the tasks and systems that move forces by securing positional advantages before operations commence. This includes moving

or deploying forces into an operational area and conducting maneuver. The Movement and Maneuver Function encompasses a number of tasks including:

- Deploy, shift, regroup, or move joint formations within the operational area by any means or mode (air, land, or sea).
- Maneuver joint forces to achieve a position of advantage over an enemy.
- Provide mobility for joint forces to facilitate their movement and maneuver without delays caused by terrain or obstacles.
- Delay, channel, or stop movement and maneuver by enemy formations. This includes operations that employ obstacles (i.e. countermobility), enforce sanctions and embargoes, and conduct blockades.
- Control significant areas in the operational area whose possession or control provides either side an operational advantage.⁷

Assured Mobility Background

Assured Mobility is a multi functional, multi branch Army concept developed by the United States Army Engineer School. It was originally developed under the Battlefield Operating System (BOS) which has since been updated and replaced with the six Army Warfighting Functions (Movement and Maneuver, Protection, Intelligence, Sustainment, Command and Control, and Fire Support), the six being tied together with Leadership.⁸ Due to this change from more branch centric applications to integrated branch capabilities in our warfighting functions, the linkages and development of integrating concepts are essential for articulating and demonstrating the coordination and synchronization that are involved among the branch specific functions and capabilities. Assured Mobility as an enabling concept integrates aspects of several of the warfighting functions, mostly movement and maneuver, protection, and intelligence. It describes the accomplishment of particular tasks that makes possible the performance of a broader military function or sub-function. Although the individual functional concepts outline the desired capabilities and associated enabling concepts, each functional concept has mutual support needs and relationships with each other to function optimally. Additionally, to further help facilitate the Army transformation to a capabilities based model and the integration of branch capabilities in our warfighting functions, the Army has established Integrating Centers. The Maneuver Support Center was formed in 1999, and the Combat Service Support Center, the Maneuver Center, and Net Fires Centers are currently being formed.

As depicted in the Figure 2, The Maneuver Support Center is responsible for the integration of Engineer, Military Police, and Chemical branch functions and respective capabilities. All branches of the Army perform the application of Assured Mobility; however, at the tactical and operational level, the Engineer Branch initially had primary staff responsibility for it, with this responsibility now being incorporated into the Maneuver Support cell. With the concept of Assured Mobility being initially developed by the U. S. Army Engineer School, it is currently written engineer specific (an in-depth review of Assured Mobility is discussed further in this paper). However with the recent change to the warfighting functions, and the evolving integrating centers, this paper addresses the integration aspects of including more Military Police and Chemical tasks in the Assured Mobility concept.

As stated above, the linkages and development of enabling concepts are essential for articulating and demonstrating the coordination and synchronization that are involved among the branch specific functions and capabilities; but more importantly synergy is derived from integrating functions. The further refinement of this concept would be beneficial to the newly formed Combat Support Brigade (CSB) Maneuver Enhancement (ME) and the Brigade Special Troops Battalion (BSTB) as Assured Mobility tasks will generally be executed by this brigade or battalion. The Maneuver Support (MANSPT) representatives are responsible for integrating the warfighting function contributions to the fundamentals of assured mobility and ensure the maneuver force integrates the imperatives of Assured Mobility for execution.

The Concept Assured Mobility

Assured mobility, as an enabling concept, encompasses the actions and capabilities needed to assure the joint force can deploy and maneuver where and when desired, without interruption or delay, to achieve the mission. Assured mobility emphasizes proactive mobility and countermobility (and supporting survivability) actions and currently published Engineer manuals detail the integration of engineer functions and engineer specific technologies/systems used to assure mobility.⁹ The following does not include the specific engineer technologies/systems used at the tactical and operational level; it covers a broader discussion of tasks. However, it does include some additional Military Police and Chemical aspects in the concept, which the respective schools could further refine.

Assured Mobility should not be limited to the application of the mobility function. Although mostly focused on the joint functions of movement and maneuver and protection, Assured Mobility has linkages to each of the joint functions and both enables and is enabled by those functions. As stated, while the Maneuver Support (MANSPT) representative forces have the

primary staff role in assured mobility, all branches support its integration. The fundamentals of Assured Mobility are Predict, Detect, Prevent, Avoid, Neutralize, and Protect. These represent tasks that can be overlapping and concurrent. By executing these tasks the commander can influence the mitigation of impediments to mobility from standoff, and reduce the likelihood of breaching or neutralization requirements.¹⁰ They are described as follows:

(1) Predict. Predict potential enemy actions and circumstances that could impede the joint force mobility. Prediction requires analyzing the enemy's tactics, techniques, procedures and adaptations and constantly updating the understanding of the operational environment.¹¹

(2) Detect. Using ISR assets, MANSPT representative forces and planners identify impediments to mobility (i.e. the location of natural and manmade obstacles or potential obstacles) and propose solutions/alternate courses of action.¹²

(3) Prevent. MANSPT representative forces and other planners prevent potential impediments to mobility by acting proactively before the obstacles are emplaced or activated. Although political implications or rules of engagement may preclude some aggressive actions, this fundamental may include destroying enemy assets/capabilities before they can be used to create obstacles.¹³

(4) Avoid. If prevention fails, the commander avoids detected impediments to mobility.¹⁴

(5) Neutralize. MANSPT representative forces and other planners neutralize, reduce, or overcome obstacles/impediments to assure continued unrestricted movement of forces. Breaching tenets apply when forced to neutralize an obstacle.¹⁵

(6) Protect. MANSPT representative forces and other elements implement protection measures that deny the enemy the ability to inflict damage to maneuvering forces. This may include survivability and countermobility missions.¹⁶

The application of these six fundamentals leads to the Assured Mobility framework which is developed around four imperatives: 1) develop mobility input to the COP, 2) establish, and maintain operating areas, 3) negate influence of impediments on operating areas, and 4) maintain mobility and momentum. These imperatives and fundamentals of assured mobility are what enable friendly forces to exploit situational understanding and gain unsurpassed freedom of movement. Put simply, this framework describes the processes that enable the commander to **see first, understand first, act first, and finish decisively** (Figure 3).¹⁷

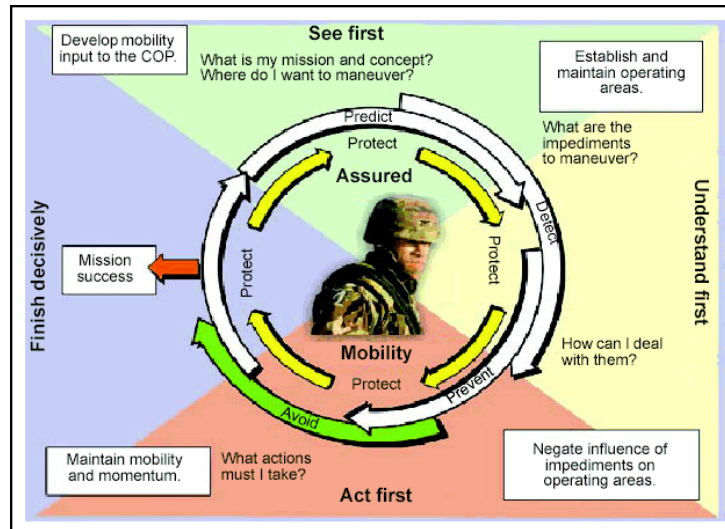


Figure 3. Assured Mobility Fundamentals and Imperatives¹⁸

The imperatives, discussed in the following four paragraphs, are proactive, not reactive, and assure mobility only if integrated into the MDMP.¹⁹ The first three imperatives are command, control, computers, communications, intelligence, surveillance, and reconnaissance (C4ISR) intensive.

The first imperative (Figure 4), develop mobility input to the common operational picture (COP), is focused on 'See First' and is the collection and integration of geospatial, cultural, and enemy information. This information, supported by automated planning tools, allows quick development of the initial and follow-on, real-time modified combined-obstacle overlay (MCOO) that enables the maneuver commander to select operating areas that provide the best positions of advantage.²⁰ Identification and location of existing obstacles and monitoring of existing traffic patterns aid in 'seeing' the operational area in near-real time. Incorporated also should be Military Police intelligence on criminal activity, Engineer route reconnaissance information, as well as reports on CBRNE potential hazard areas. The mobility input to the COP allows the maneuver commander to identify where he can maneuver and associated mobility challenges (resources required and potential enemy actions). Critical to this imperative is the linkage to intelligence, surveillance, and reconnaissance (ISR) operations and continuously updating the commander with real-time information.²¹

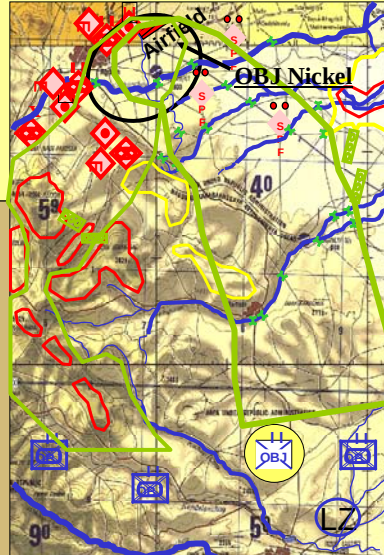
<u>Task</u> Develop Mobility input to the COP	<u>Concept:</u> Unsurpassed geospatial, cultural and enemy information collection systems, aided by automated mobility planning tools, to establish the mobility COP to maximize use of avoidance	
<u>Purpose</u> Achieve mobility info dominance required to establish operating areas.		<u>SEE FIRST</u>
<u>SEE FIRST</u> •Foundation feature data •National data integration - Mission specific data sets •Infrastructure data base •Existing obstacles •Existing mobility patterns •Predictive enemy analysis •Computer aided mobility analysis - Operating Areas		<u>ACT FIRST</u> •Establish initial sensor web to fill voids
		<u>UNDERSTAND FIRST</u> •Where to maneuver •What resources needed to maneuver •How enemy can influence my maneuver
		<u>FINISH DECISIVELY</u> Operating areas identified that achieve maneuver intent

Figure 4: Develop Mobility Input to the COP²²

The second imperative (Figure 5), select, establish, and maintain operating areas, is focused on ‘understand first’ and identifying the threat, any restrictive terrain, and location of a countermobility effort. Utilizing automated tools, critical mobility choke points and possible enemy actions can be identified. Battlefield terrain reasoning and awareness (BTRA) allows templates to be developed identifying potential obstacles and locations of where the enemy might place obstacles. By tracking existing obstacles and cataloging threat patterns, the commander can predict what the threat may do to the terrain to impede maneuver forces. Sensors can then be dedicated to critical areas, such as choke points, needed for filling information voids or improving situational understanding of counter enemy attempts. By identifying the locations that may impede movement, or chemical detection of contaminated terrain on routes/vulnerabilities to CBRN targeting, the leadership element can resource where they want to maneuver to avoid or neutralize these impediments while protecting the force and minimizing risks. If required, this imperative includes integrating joint networked fires, obscuration operations, facilitating MEDEVAC, and establishing convoy safe-heavens.²³

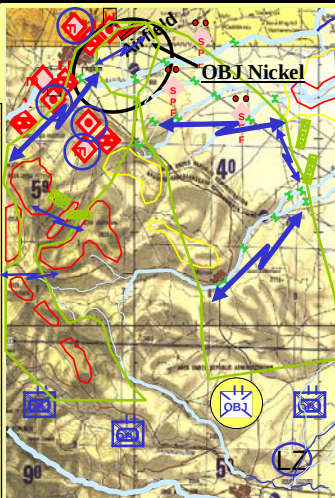
Task Select, establish and maintain Operating Areas	Concept: Fix current Operating Areas situational understanding, populate selected corridors with sensor-effect & sensor staring packages. Deny enemy the ability to influence operating areas.	
Purpose Develop & secure operating areas		SEE FIRST Maintain /continuously enhance COP
UNDERSTAND FIRST •ID critical choke points •Determine enemy shaping intent •Develop ISR plan to support corridors •Focus & employ sensor packages •Target enemy assets that can influence mobility •Protect critical choke pts with sensor / effect suites •Define UA/UE mobility assets / requirements		UNDERSTAND FIRST
		ACT FIRST •Protect selected infrastructure •Attack / deceive enemy that can influence corridors
		FINISH DECISIVELY Destroy enemy capability to influence the operating areas

Figure 5: Select, Establish and Maintain Operating Areas²⁴

The third imperative (Figure 6), negate influence of impediments on operating areas, is focused on 'act first' and is accomplished by proactively interdicting the threat's countermobility efforts. Key in this imperative is a proactive attack of the enemy's ability to employ obstacle by employing standoff detection and obstacle neutralization systems; which provides the maneuver commander with multiple avenue options. To proactively attack the threat, current sensor systems and future intelligent munitions and antipersonnel (AP) land mine alternatives (APLA) will be employed.²⁵

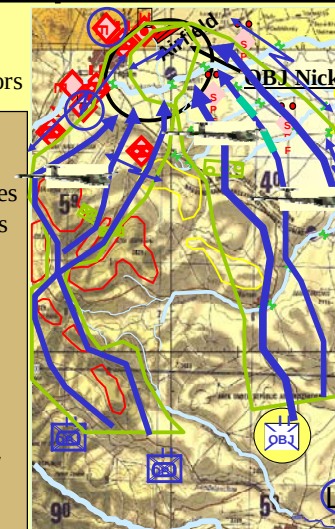
Task Negate influence of impediments on Operating Areas	Concept: Employ standoff detection and obstacle neutralization systems to maintain routes within operating areas. Attack enemy assets that attempt to influence corridors.	
Purpose Ensure freedom of maneuver within corridors		SEE FIRST Maintain /continuously enhance COP
ACT FIRST •Detect: -Side attack / area mines -Obstacles & ambushes •Deny enemy his intent to shape the battlefield •Select best available routes within corridors •Employ UE mobility resources to neutralize maneuver restrictions •Mark lanes / bypasses / obstacles •Deploy active markers		UNDERSTAND FIRST •Maintain situational understanding of operating areas
		ACT FIRST
		FINISH DECISIVELY Detect & neutralize maneuver restrictions within established corridors

Figure 6: Negate Influence of Impediments on Operating Areas²⁶

The fourth imperative (Figure 7), maintain mobility and momentum, is focused on 'finish decisively' and incorporates the fact that the threat will adapt to our operations. The goal of this imperative is to allow maneuver forces to neutralize the effects of obstacles along multiple and parallel routes, without delay. Detection of obstacles is critical for ensuring they do not adversely affect the mobility of the force. This includes side-attack and wide-area mines and neutralizing their effects. If absolutely necessary for the force to cross through an obstacle, an organic breaching capability would be employed utilizing marking systems to provide visual, virtual and active identification of obstacles and cleared or safe areas.²⁷

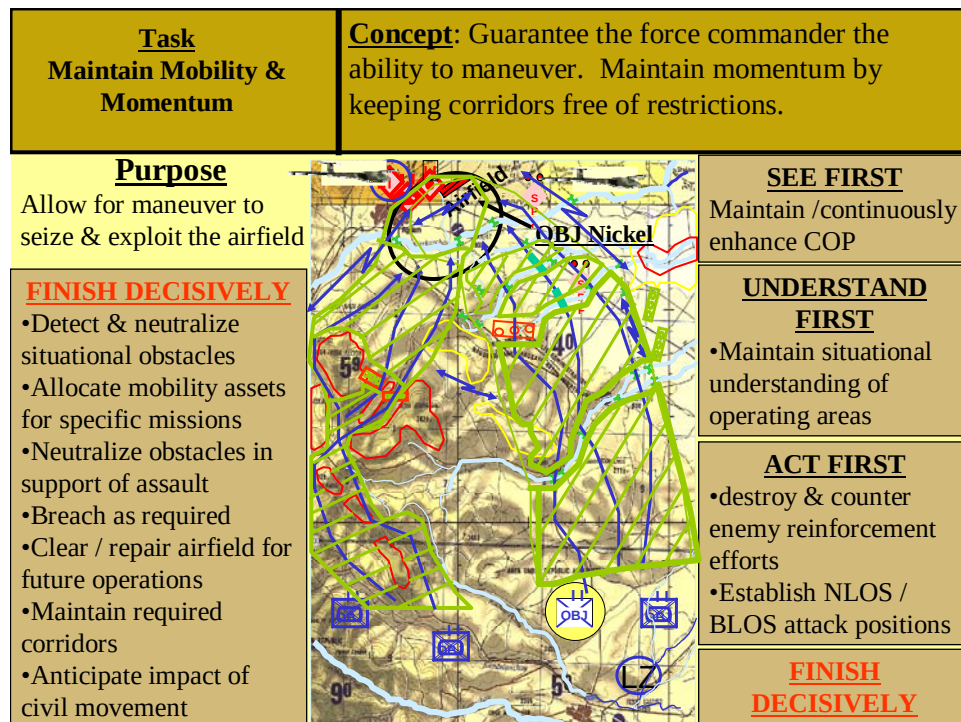


Figure 7: Maintain Mobility and Momentum²⁸

In addition to assuring mobility and momentum for the maneuver force, it is also critical for the supporting force. This includes operating routes for pulse logistics as well as forward landing areas for air resupply, establishment of main supply routes (MSRs) and area security check points, road blocks, surveillance and monitoring conditions of the routes, traffic regulations, facilitating vehicle removal/recovery operations, and possible control and placement of dislocated civilians and stragglers must also be assessed and integrated into assuring mobility in the area of operations (AO).²⁹

DOTMLPF Integrating Aspects of Assured Mobility

Providing Assured Mobility for the force is a Maneuver Support Center (MANSCEN) capability. The Maneuver Support Center is responsible for the integration of Engineer, Military

Police, and Chemical branch functions and capabilities. The Maneuver Support Center capabilities concentrate on two interdependent functions which ensure the force freedom of Movement and Maneuver and Protection throughout the theater of operation.

Some proposed changes to the concept are the refinement of some Military Police and Chemical aspects which will help show the branch interdependencies, synchronization and resulting synergy. Again, the underlying importance of concepts is they define required capabilities which will be used to influence any subsequent concept development and possible resulting DOTMLPF changes. In the 'doctrine arena,' Assured Mobility is addressed in Engineer field manuals and captured under Maneuver Support capabilities. However, higher level joint doctrine does not refer to Maneuver Support capabilities (such as Assured Mobility) or functions, but refers to this type of capability mostly under the Protection Function for which doctrine is currently being written. An interim field manual on the CSB (ME) functional brigade operations, an 'organization' that provides Assured Mobility, is being written which discusses how the CSB (ME) is designed to receive and control forces to provide protection and mobility to prevent or mitigate the effects of hostile action against divisional forces.³⁰ And some of the Maneuver Support capabilities and functions are grouped under the operational protection function with there being 'organizationally' an Operational Protection Cell to the Corps main Command Post. This cell consists of the headquarters with a Provost Marshal's Office, and Air and Missile Defense, Engineer, and CBRNE elements. Thus, this cell would have the responsibility of integrating and synchronizing the corps' overall protection efforts, such as Assured Mobility.³¹

From this, these staff sections should be the ones developing and performing the 'training and leadership' aspects and planning for integration operations such as Assured Mobility, and would also be responsible for doing holistic Assured Mobility planning with other specialties/branches such as MI, CA, SIG, and EOD. Further, in the 'organizational arena', organic to the combined arms battalions and other units, there are Engineer Reconnaissance Teams which could be utilized specifically to recon Engineer significant Assured Mobility aspects of the operational area. For identifying CBRNE aspects, tasked organized with Chemical Recon Teams, and Chemical Technical Escort Battalion's are Joint Response Teams for WMD-elimination and sensitive site exploitation missions. Organizational changes are evolving as there are now 'personnel' -multifunctional staffs (EN, MPs, CM and EOD) - and organizations responsible for executing Assured Mobility which have been aligned with the BSTB at the Brigade Combat Team (BCT) level, CSB at the division and corps level, and either ENCOMs/MPCOMs or again CSB at the theater level.

When considering the 'materiel arena' of the DOTMLPF implications for Assured Mobility, there are two key organizations at MANSCEN that help integrate materiel/technological developments used in providing Assured Mobility: the TRADOC Capability Manager – Assured Mobility (TCM-AM), and the TRADOC Program Integration Office – Terrain Data (TPIO-TD). TCM-AM is responsible for the coordination, management and development of technologies and the integration of systems that enable the capabilities needed to execute Assured Mobility. A large aspect of Assured Mobility is the defeat of Improvised Explosive Devices (IED) which aligns well as TCM-AM is also responsible for coordinating, integrating, and synchronizing IED defeat systems and program developments amongst the TRADOC schools and training centers which is then provided to the Joint IED Task Force.

Another key aspect required for the execution of Assured Mobility is geospatial data - terrain visualization features, terrain analysis, and digitized data. The variety of terrain sets in the future operational environment means that forces must use terrain to their advantage for cover or enhanced concealment, or conduct line of sight analysis, and will conduct specific terrain-oriented operations to gain key terrain. Terrain data, a function of the Engineers, is synchronized and managed by TPIO-TD, an activity that manages the development of digital topographic support systems and terrain analysis data/systems. This data is critical for the first imperative, to develop mobility input to the COP, and to "See First." High fidelity terrain knowledge reduces the adversary's home court advantage and three dimensional terrain data tools allow leaders to quickly identify decisive terrain and covered routes. Under the 'facilities domain,' the Maneuver Support Center provides training facilities, teaches Assured Mobility, and will be the home installation base for a CSB (ME).

This section has covered largely the tactical and operational aspects of Assured Mobility, Maneuver Support capability integration linkages, suggested Military Police and Chemical task refinements, and identified some DOTMLPF implications. The next section will address the relevance of Assured Mobility as an enabling concept for the conduct of battlefield operations. To show the relevance of the capabilities enabled by Assured Mobility, an overview of the hierarchical linkages from the current security threat to the conduct of battlefield operations will be outlined. This will facilitate addressing implications of Assured Mobility at the strategic level.

Assured Mobility Relevance

The current National Security Strategy (NSS), National Defense Strategy (NDS), Quadrennial Defense Review (QDR) and National Military Strategy (NMS) present national interests, policy, and strategic vision. From this, given our current and anticipated threats,

national objectives (ends) have been developed. Our strategic security focus has been combating the global war on terrorism (GWOT) and weapons of mass destruction (WMD). The National Strategic Aims (ends) for the GWOT/WMD are to defeat violent extremism as a threat to our way of life as a free and open society; and create a global environment inhospitable to violent extremists and all who support them.³² Additionally, recent assessments of the security environment have focused on global insurgency aspects in this global war against violent extremism and WMD.³³ This focus is important in understanding the required counterinsurgency capabilities as insurgency is a protracted form of irregular warfare with strategies employed by insurgents being more complex than those of other armed counterparts (terrorists). Insurgents use tactics ranging from guerrilla operations and terror to political mobilization, political action, psyops, and intelligence.³⁴ Key in this is that our adversaries, both terrorists and insurgents, will fully utilize asymmetric warfare strategies in geographical dispersed regions. With the transitioning to security, stability and reconstruction (SSTR) operations in Iraq and Afghanistan, there is a shift in emphasis of our national strategic concept (ways) being given to the political and economic elements of national power. Given the US military specific 'means' employed against terrorists/violent extremists and WMD since 9/11, our adversaries have adapted their strategies by utilizing ungoverned territory for sanctuary, exploiting the war in Iraq, and maintaining national-level activities in nine regional areas.³⁵

For this type of unconventional, asymmetric warfare, movement to and through these areas of interest or operational areas is critical as insurgent/terrorist strategies involve activities in remote parts of over twenty countries (Iraq, ungoverned territories and regional areas). As stated in the Quadrennial Defense Review (QDR), future operations will continue to be conducted simultaneously throughout a number of geographical theaters.³⁶ Globalization, networks, and technological advances have enabled our adversary to be able to operate in geographically dispersed and austere environments anywhere in the world. In the future the force will encounter unprecedented complexities in physical terrain, human terrain, and informational terrain.³⁷ Particularly for counterinsurgency operations, terrain analysis will be critical, with the emphasis being on complex terrain, suburban and urban terrain, key infrastructure, and lines of communication - key data needed for assuring movement to and through those areas.³⁸ The adversary will attempt a strategy of protraction and exhaustion to degrade U.S. national will, and fracture its alliances and coalitions.³⁹ The adversary will attempt to break down external support to U.S. forces by attacking multinational and interagency partners. This could range from interdicting interagency disposition of WMD, UN monitoring of an adversaries WMD program, joint threat reduction activities, civil support to

stability and reconstruction, security cooperation efforts, or the flow of humanitarian assistance (HA) assets into emergency areas. Additionally, given our move to less forward basing and more CONUS based power projection platforms, access and assured mobility/movement is a strategically relevant and required capability. Thus, an analysis of these threats and strategies demonstrates that one of our critical vulnerabilities or where there is risk in the enemy being able to defeat us would be anti access or denying mobility/movement to and through these areas. Knowing where the possible points of theater-level failure are that may jeopardize the mission allows one to know what approach to focus on from a joint solution perspective and where to put resources. An integrating concept that focuses on assured mobility and movement at the strategic level can help address this critical vulnerability.

Assured Strategic Mobility (Joint and Theater Level Aspects)

As discussed, Assured Mobility is a multi-functional, multi-branch mission and to date most aspects have been focused at the tactical and operational level. However, this section will propose that a view of it also be looked at in the broader context of assuring movement over inter and intra theater lines of communication. When you apply a holistic view of assured mobility at the joint and theater level, assured mobility becomes part of force protection to achieve operational maneuver from strategic distances (Figure 8).⁴⁰ This requires

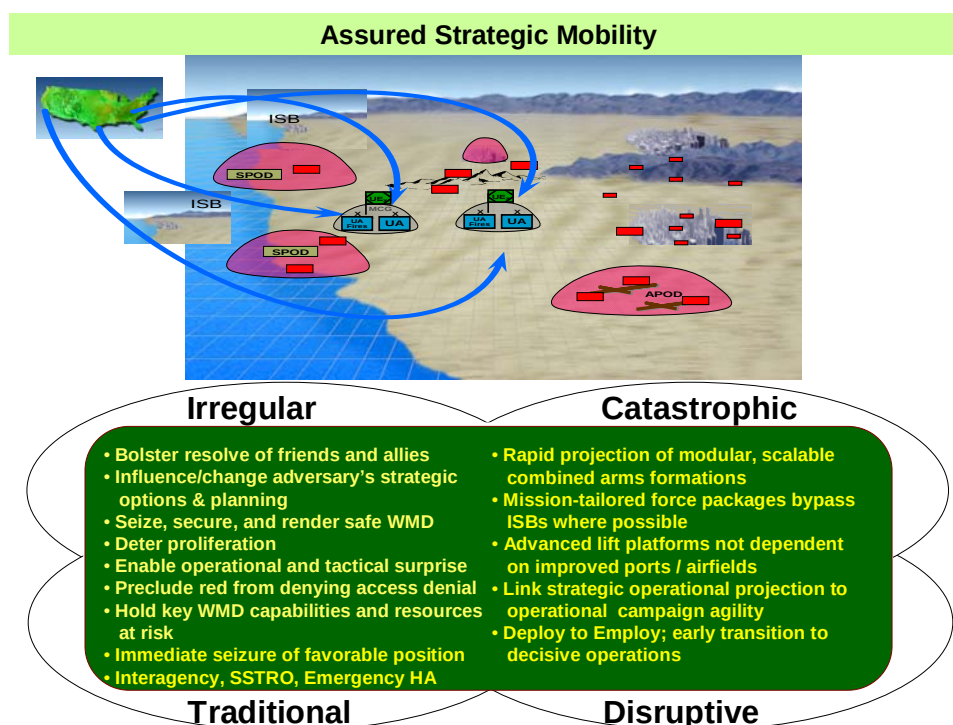


Figure 8: Assured Strategic Mobility

synchronization of Joint interdependencies for providing secure corridors for air and sea movement, or multinational support for ISBs, logistical hubs, enroute refueling points, and integrated civil interagency efforts.⁴¹ This is critical given our current threat of a noncontiguous, nonlinear battlefield for maintaining the continuous flow of forces.

The Army's functional concept for protection discusses the significance of the force having the ability to rapidly project and sustain itself from domestic bases or forward deployed foreign locations, from fort-to-port, particularly given our threat environment.⁴² During movement forward to the theater along air and sea lanes, protection provided by sister services to eliminate potential interdiction is imperative to access. At the access site, civil infrastructure may need to be reinforced, expanded, and protected. The adversary will attempt anti-access measures necessitating the requirement for integrated joint theater air and missile defense, CBRNE defense, and joint fires for protection of ports of embarkation and debarkation, and intermediate staging bases. Continuous flow and movement is imperative for rapidly building forces and eliminating operational pauses, which reduces vulnerabilities to attacks, and facilitates not allowing the adversary time to reorganize and reconstitute. The use of multiple entry points will help overcome anti-access actions, but this too will entail more coordination and resourcing efforts. Interagency and security cooperation will be necessary due to civil controlled transportation assets such as roads, bridges, rail lines, non-military seaports and civilian airfields. This is especially important for transitioning to stability operations. All of these activities demonstrate the requirement for joint, interagency and multinational preplanned coordination, and a global synchronization of efforts for Assured Strategic Mobility.

For Assured Strategic Mobility there are some key preplanning coordination aspects that must be prepared. The methodology of see first, understand first, act first, and finish decisively must be applied, overlaid with the six fundamental and four imperatives. For example how do you get pre-arranged access? Is this only an interagency function? Definitely the State Department will need to engage in diplomatic global discussions with friendly nations, the Department of Defense with multinational military forces, national intelligence assets to provide a detailed understanding of the area with key geospatial/terrain data being available or if required developed, and theater security cooperation program exercises conducted to gain valuable situational understanding of key locations around the world⁴³. There are related processes/concepts that address some of the aspects of Assured Strategic Mobility such as the JOC for Joint Distribution, the JIC for Joint Forcible Entry Operations, Joint Security Areas, and Joint Deployment and Redeployment. There are also functional organizations that have various aspects such as TRANSCOM and STRATCOM.

Assured Strategic Mobility requires protection of the overall effort, relationships and agreements with Host Nation forces, security over extended distances and unity of effort with existing activities. The adversary will try and derail our missions so we must protect and take away opportunities from where they can attack. For example, who moves in after the Marines have seized a forward operating base and as the Marines move on; how and who comes in to continue to assure that access? With asymmetric warfare we have gaps in our areas of responsibilities and we need to know our limits of where we can exercise authority. This proposed aspect of the concept if developed for the strategic level needs to help define, synchronize, and prioritize resources and tasks – and propose who is in charge of planning the overall integration effort of synchronizing and directing joint assured strategic mobility operations.

Specifically, Engineer assets are needed at the theater level for intra theater lines of communications, infrastructure development, constituting the sites, improving inland ports and waterways, expanding airfields rapidly for humanitarian assistance operations, ensuring the flow of assets into evolving areas, and supporting interagency developments. Theater level engineers must enable assured strategic mobility and access into multipoint areas in the theaters and operational areas that commander's require - particularly when one considers the theater sustainment base amongst joint operating bases that must be fully sustainable, secured and protected, and warehousing infrastructure, distribution facilities, and theater contracting.

There currently is no joint organization specifically tasked with strategic level Assured Mobility. At the joint level Assured Strategic Mobility falls under the function of Protection. As stated, there are organizations responsible for various separate parts of assured strategic mobility and access functions and tasks, but no one entity is responsible overall. Achieving Assured Strategic Mobility requires a joint protection, synergistic, and collaborative application of protection activities, which are: detect, assess, warn, defend, and recover, that will deter, prevent, or mitigate adverse effects on the Joint Force. Movement could be accomplish with Naval assets, through sea based platforms, Army organic rotary-wing assets, or fix-winged capabilities provided by other services. Pre-planning for protection modules for entry points and key terrain to be defended will need to be added to organic capabilities; this will be required until sufficient force is assembled to permit sustained operations.⁴⁴

When considering the DOTMLPF considerations of Assured Strategic Mobility, Assured Strategic Mobility should become part of joint 'doctrine' and placed in JP 3-10 Protection, JP 3-18, and JP 3 -35. CAC has been designated as the Army's proponent for protection, with MANSCEN, ADA and other proponents having specific protection task responsibilities under

CAC. CAC is currently developing the doctrine as they are writing a Protection FM and may plan to address all the other DOTMLPF domains.

At the strategic level we need an 'organization,' and need 'personnel' in multifunctional staffs with the right functional tools in order to Assure Strategic Mobility when and where America needs it. Perhaps a Theater Protection Command (TPC) may be needed or another functional command assigned this as an additional task to an existing commander/organization for synchronizing the plan between the component commands. The Army could establish Theater Protection Commands out of some of its current theater functional commands to provide a nucleus for Joint Protection augmentation.

A few organizational entities that have been stood up or being considered to address some of these concerns are CENTCOM's DDOC and JFACC's Director of Mobility Forces for synchronizing as an enabling element for strategic airlift and a single manager of surface and surface lift routes between Forces Operating Sites, FOBs and Base camps. The Combined Arms Center (CAC) at Fort Leavenworth has designed Protection Cells in the division, corps, and theater army, but who is developing, validating and synchronizing aspects of protection, such as Assured Strategic Mobility - directing studies and analyses or enabling concepts, with TTPs and doctrine, designing 'training,' directing the development of needed 'materiel' and technologies, experimentation, and ensuring that 'leadership and education' is incorporated into programs of instruction – in other words all the integrating DOTMLPF domains. As stated CAC has been designated as the Army's proponent for protection, however, I would propose that with MANSCEN being an integrating center, they would be an efficient organization to aid CAC in this role; and could possibly be assigned as CAC's executive agent for integrating DOTMLPF aspects of protection. Or, branch schools will independently develop protection aspects such as Assured Mobility, and later consider integration pieces.

Conclusion

For the force at the tactical and operational level, the U.S. Army Engineer School has expounded further upon the Assured Mobility concept in their doctrine, specifically mentioning the types of engineer technologies and more specifics that help convey to the Engineers their responsibilities in executing Assured Mobility. This concept has evolved and the Maneuver Support Center has integrated the some Military Police and Chemical tasks. However, it would be beneficial for the Military Police and Chemical schools to further expound upon the concept and thoroughly identify technologies and branch specific aspects and capabilities; and possibly include this concept in their respective doctrinal manuals. Further this Maneuver Support

concept needs to be more vetted with all three schools input to clearly show the interdependencies and where coordination and synchronization must occur; and then with MI, CA, EOD. Additionally, the use of the doctrinal term Maneuver Support needs to be resolved in higher level manuals.

For the strategic level, 'organizationally,' a Joint Protection Command based on an Army provided Theater Protection Command should be evaluated and joint 'doctrine' must be developed to address Assured Strategic Mobility in the family of Joint Publications: 3-0, 3-10, 3-18, 3-35. As stated initially, the critical function of concepts is that they serve as "engines for transformation" that ultimately lead to the identification of possible changes or gaps in doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) and policy changes.⁴⁵ In this case, the analysis of Assured Mobility has identified a weakness at the strategic level in the development of DOTMLPF integration considerations for aspects of the Protection Function. This project proposes that MANSCEN, as an integrating center could be assigned as an executive agent to CAC and support them in this process.

Endnotes

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¹¹ U.S. Department of Army, *Engineer Operations*, Field Manual 3-34 (Washington, D.C.: U.S. Department of the Army, January 2004), 3-14.

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¹³ Ibid., 3-16.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ U.S. Department of Defense, *Engineer Doctrine for Joint Operations*

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¹⁸ Ibid.

¹⁹ U.S. Department of Army, *Engineer Operations*, 3-12.

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²¹ Ibid., 3-13.

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²³ U.S. Department of Army, *Engineer Operations*, 3-13.

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²⁹ U.S. Department of Army, *Engineer Operations*, 3-14.

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³¹ U.S. Army Training and Doctrine Command Combined Arms Center, *The Army Modular Force*, Field Manual Interim (FMI) 3-0.1 (Fort Leavenworth, KS, 17 November 2006), 4-14 &15.

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