Maneuver Support Concept Capability Plan

By Mr. Michael L. Fowler

The Maneuver Support Center of Excellence is leading an Integrated Concept Development Team to write a Maneuver Support Concept Capability Plan (CCP). This effort is a partnership with other schools and centers and was chartered by the Army Capabilities Integration Center on 7 April 2008. The CCP describes the means to optimize ground movement and maneuver. Maneuver support encompasses the related tasks and systems that directly remove or mitigate natural, artificial, and human obstacles and hazards, providing derived protection and enabling ground forces to act, move, and maneuver as desired. Maneuver support results from the integration of active and passive capabilities that shape the physical and psychological operational environments to enable continuous movement of personnel, vehicles, and equipment to act against traditional, irregular, catastrophic, and disruptive challenges. Maneuver support sets the physical conditions that enable commanders and joint, interagency, intergovernmental, and multinational (JIIM) partners to apply the elements of national power at the operational and tactical levels. Maneuver support is key to enabling ground forces to conduct the Army key ideas of—

- Shaping and entry operations.
- Intratheater operational maneuver.
- Decisive maneuver.
- Concurrent and subsequent stability operations.
- Distributed support and sustainment.

Concept Capability Plan Scope

This CCP focuses on tactical and operational maneuver support capabilities and maneuver support to strategic capabilities. The CCP considers current, projected, and desired maneuver support capabilities for maintaining dominance in a full spectrum environment in the 2015–2024 timeframe. This document describes a wider scope than the current "conventional" tactical usage of today's Army engineer, military police, and chemical branches. The CCP will center on the movement-enabling capabilities of these branches, as well as those provided by explosive ordnance disposal (EOD) personnel. It will include maneuver support capabilities toward information engagement (IE) operations in support of unified action. It will not include capabilities or specialties such as air and missile defense, maintenance, transportation, quartermaster, any medical specialty, fixed-site protection, or up-armoring or armor enhancements. This document focuses on operations outside the homeland, but its tenets can be applied to operations in support of homeland defense and civil support.

Photo by Specialist Alfredo Jimenz, Jr.

Military police Soldiers do their part in bringing stabiliity to Tikrit.

Maneuver Support Operations

Maneuver support operations center on operations in the physical

Photo by U.S. Army Alaska

After arriving on-scene during a recent training mission in Valdez, Alaska, Soldiers from the 95th Chemical Company set up the Chemical, Biological, Radiological, and Nuclear Unmanned Ground Reconnaissance (CUGR) robot control station.

operational environment, but provide significant input into IE operations, providing a basis for optimized movement and maneuver through reduction of the adversaries' will to attack friendly forces. Maneuver support assets implement or support scaled holistic implementation of the diplomatic, informational, military, and economic (DIME) elements of national power at the tactical level in support of theater operations. Engineers bring construction, infrastructure, and contract oversight experience (economic and informational impact). Military police restore order, shape police forces, and resettle refugees and displaced persons (economic and informational). IE, civil affairs, and psychological operations (PSYOPS), fed by the effects of maneuver support operations, shape public opinion, disseminate information, and lessen attacks and opposition (informational). Future chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) capabilities will reduce CBRNE hazards and restore the environment to a usable condition (economic and informational). EOD capabilities render safe conventional, unconventional, and improvised explosive device (IED) threats (economic and informational).

Traditional Scenario

In a traditional setting, maneuver support assets will perform their primary functions to ensure theater access, build and sustain operational lines of communication (LOC), and support movement and maneuver through activities such as—

- Eliminating or reducing explosive and nonexplosive hazards and obstacles.
- Conducting route and area clearance and security, neutralizing hazards.
- Conducting CBRNE activities.
- Conducting detainee or internment/resettlement (I/R) operations.
- Controlling populations.
- Emplacing obstacles to enemy movement and maneuver.
- (Re)constructing infrastructure, as needed.

Their functions will be full spectrum, tailorable, and scalable as needed.

Irregular Scenario

In an irregular scenario, maneuver support assets will execute their missions in the same way as for traditional operations. Additionally, there will be unique requirements based on the theater and mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) conditions. The overall load on maneuver support assets will be no less than that required by traditional operations and will require agile and robust formations. It is likely that the primary missions in irregular scenarios will be—

- Eliminating or neutralizing explosive and nonexplosive/CBRN hazards.
- Providing route and area clearance and security.
- Providing engineer construction support.
- (Re)establishing civil security and control.
- Restoring order and governance.
- Supporting governance and economic and infrastructure development.

Catastrophic Challenges

Catastrophic challenges require focused, rapid, and agile action, potentially in a CBRN-contaminated environment. Action may occur before or after a catastrophic attack or event. If response is possible before an event, rapid action may prevent the event. Specialized CBRNE response teams will perform the actual threat neutralization—supported by maneuver support and non-maneuver support forces as needed to move to the required location, secure it and the surrounding area(s), and conduct the neutralization. If neutralization is unsuccessful or if an event occurs, the CBRNE, explosive hazard, population control, and potentially the infrastructure capabilities of maneuver support forces will be key. Simultaneous action to secure and protect populations and areas will minimize immediate and successive impacts. Immediate action to remediate the hazard and

contaminated areas will begin and will continue until local or host nation capabilities can assume the mission.

Disruptive Challenges

Disruptive challenges are doubly difficult to protect against and plan for because they are not only challenges not encountered before, but potentially require a response for which no ready response is available. Threats such as these that counter U.S. capabilities or give the enemy an advantage will be extremely difficult to plan for and react to. An example is a disruption of network operations, resulting in interruptions or stoppage of data and voice information flow. Another would be a breakthrough in nanotechnology, materials, energy weapons, or less-than-lethal or missile technology that enables the enemy to negate U.S. superiorities. Regardless of the type of disruptive challenge that arises, maneuver support forces must retain the capability to perform their primary functions in any environment. This may include CBRN contamination, a total loss of space and air breathing data and communications platforms, and advanced electronics. Maneuver support forces must retain the capability to perform in a contaminated, hard-copy environment.

Maneuver Support Tenets

Maneuver support is described by five major tenets of capabilities. These tenets are—

- Maneuver support command and control/technical expertise.
- Assured mobility operations.
- Consequence management operations.
- Population control operations.
- Stability operations and rear/support area operations.

Maneuver Support Command and Control/Technical Expertise

As part of mission analysis, a combination of Army and other-Service maneuver support personnel, regional experts, and agency civilians conduct thorough mission analysis to determine stability mission requirements. They use a variety of historical, cultural, regional, environmental, and geospatial data—combined with embassy input and human and sensor inputs from ground analysis. The final combined mission requirements listing includes—

- Support to civil security and civil control.
- General law and order.
- Governance.
- Assistance with handling terrorists and their supporters and networks.
- Enhancements to transportation, water, power, and other public works infrastructure.
- Remediation of hazards.

There is also a requirement to clear routes and areas to remove explosive remnants of war from previous conflicts in order to remove dangers to civilian and military movement and base camp operations. The clearance capability will also allow the force to react to IEDs or related explosive hazards.

Assured Mobility Operations

Any ground movement during an operation may require robust, agile, and flexible assured mobility support, beginning with the first movement from the seaport of departure (SPOD) or airport of departure (APOD). Tailored maneuver support route clearance and mobility support capabilities are identified and deployed. They begin clearance operations at the APOD and conduct day/night, all-weather operations as needed along the LOC network to enable the initial movement of troops and equipment from APOD to their final destinations. Maneuver support formations clear or bypass obstacles and hazards along the LOC network. Following initial clearance, the LOC network comes under constant surveillance and patrolling to ensure route security.

Precise and detailed remote sensing analysis of the terrain define the existing LOC route network, enabling planners to project primary, secondary, and further routes as desired to support the overall operation. Ground reconnaissance and testing of the projected LOC network by human and autonomous or teleoperated equipment determines LOC capabilities and limitations. When existing infrastructure fails to meet requirements, analysis identifies alternate routes or bypasses. When alternate routes or bypasses are unavailable and infrastructure repair work or construction is necessary, analysis data enables planners to compile requirements for the materials and repair capabilities needed to assure initial entry and ground movement throughout the operating area as needed.

After initial (re)construction of LOCs, the effects of weather, traffic, and potentially of elements opposed to the coalition effort require continuing assured mobility and gap-crossing capabilities. Advanced systems and capabilities for rapid gap-crossing and nonexplosive obstacle reduction operations become necessary within days, as the initial storms of the approaching local rainy season cause some previously passable dry or wet gaps to become impassable to most platforms. As this was projected in initial mission estimates, sufficient crossing capabilities were part of the deployment package enabling the force to maintain its ability to conduct multiple in-stride crossings, as well as rapid reduction of nonexplosive obstacles.

Prediction of the usage and emplacement of explosive hazards allows the force to mass its primary explosive hazard detection and clearance capabilities as appropriate to most rapidly neutralize threats. Data on known explosive remnants of war sites was incorporated into the movement hazard template, and neutralization efforts occur accordingly. Improvements in technologies for explosive hazards detection allow rapid detection at or near desired movement speeds. In most cases, detection occurs as planned and formations are able to bypass or avoid the hazard or

neutralize it by electromagnetic, sonic, mechanical, or other means. Backup systems within moving formations ensure that hazards not initially detected are either detected or neutralized via secondary means. These systems—being a mix of autonomous and teleoperated systems and platforms—remove the danger to troops and ensure that no major casualties result despite multiple incidents. Throughout the mission, the force continues to exercise maximum flexibility in both responding to changes in enemy hazard employment and in proactively eliminating the enemy's ability to place hazards.

In addition to conventional manned security patrols, the force maintains continuous route security on all vital routes via manned and unmanned ground, air, and space platforms and sensing equipment, providing persistent reconnaissance in all weather. Relocatable, autonomous mobile sensor equipment provides greatly enhanced coverage, tailorable to the terrain, weather, and friendly and enemy conditions. Detection of explosive, nonexplosive, and CBRN hazards occurrs rapidly. Enemy efforts to emplace such hazards are quickly detected, and appropriate lethal or less-than-lethal means are quickly brought to bear to interdict these efforts and kill or capture the emplacers. These systems and capabilities provide constant situational awareness of route conditions and security and assure ground mobility for coalition forces.

Consequence Management Operations

Joint Publication (JP)1-02 defines consequence management as "*actions taken to maintain or restore essential services and manage and mitigate problems resulting from disasters and catastrophies, including natural, manmade, or terrorist incidents.*"[2] For the purposes of this CCP, consequence management includes this general description, but its primary focus is on weapons of mass destruction (WMD) consequence management.

Threat analysis indicates that the potential for damage in the physical and psychological domains due to such attacks is high enough to deploy consequence management assets, because the host nation has insufficient capability to manage such incidents. Specialized teams—capable of responding to toxic industrial chemicals (TIC) or other WMD attacks—deploy throughout the area of operations to best respond to potential attacks. These teams combine with other maneuver support site assessment teams, military police, host nation, and select coalition personnel and conduct joint hazard assessments on all potential sites and discuss all potential WMD incidents. Using its assessments and conclusions, the combined team conducts rehearsals of responses to various incidents. Analysis conclusions also result in reallocation of host nation and U.S./coalition security and surveillance assets to maximize detection of such incidents before they occur and ensure timely response if they do occur.

Population Control Operations

To support civil order and control, maneuver support elements frequently interact with the population in support of host nation forces or act alone. Military police and Department of Justice personnel responding to criminal activity and conducting missions to break up criminal networks seamlessly operate side by side with host nation law enforcement organizations, using joint procedures and interoperable communications equipment. During routine patrols or route and area security missions, or while responding to incidents, maneuver support elements meet armed or unarmed resistance or confront undesired activity. They encounter antigovernment protests that occasionally involve large and uncooperative crowds. During curfew hours, there will be chance meetings with persons who may be conducting terrorist activities or who may be ordinary citizens with no negative intentions. Throughout the stability operation, there are multiple requirements to control armed and unarmed populations in confrontational and nonconfrontational situations.

Stability Operations and Rear/Support Area Operations

Stability Operations. According to FM 3-0, stability operations are "*various military missions, tasks, and activities conducted…in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief.*"[3]

As a parallel effort with restoring and maintaining civil control, military and civilian maneuver support elements conduct actions to enhance the host nation's capabilities in multiple functional areas. Early in the stability operation, this effort is heavily focused on security and in meeting immediate needs, but begins operations along multiple lines of work to strengthen the knowledge and capability base across the board. Maneuver support elements apply skills and knowledge in cooperative sessions with national and local personnel to build capacity in—

- Security.
- Population control.
- Construction engineering.
- Sewerage.
- Water extraction, purification, and transportation.
- Electricity generation and distribution.
- Trash composting or disposal.
- Explosive ordnance identification and disposal.
- Strategic communications/IE.

Once maneuver support elements have assisted the host nation in preparing the physical and institutional framework, further elements begin a greater presence in the stability operation. When construction has been completed on medical facilities, schools, police stations, communications centers, and other key facilities, further military and civilian organizations begin to flow into the operation. The permissive security situation and presence of new usable facilities not only allow deployable military and civilian

organizations to operate, but a wide variety of other governmental agencies and organizations and nongovernmental organizations also begin operations and rapidly mature the stability operation, significantly expanding host nation capabilities in multiple vital areas.

Rear/Support Area Operations. The CCP will address support area operations at the division and brigade levels. In a division area of operations, a maneuver enhancement brigade (MEB) will perform the support area operations mission. In a brigade combat team (BCT) area of operations, the brigade special troops battalion (BSTB) will perform this mission. As part of these operations, they perform vital missions such as—

- Conducting terrain management.
- Controlling movement.
- Integrating intelligence, surveillance, and reconnaissance (ISR).
- Conducting operational area security.

The MEB is responsible for security throughout its area of operations. It accomplishes this by conducting persistent reconnaissance using human and electronic means in order to maintain the common operational picture (COP), The majority of effort in the MEB area of operations centers on area security, with specific concentration on reconnaissance and security of routes and convoys. To fill the reconnaissance gap and maintain constant situational awareness, the MEB employs multiple automated integrated sensor/shooter systems at appropriate locations along routes. These systems provide the MEB the capability of viewing routes in real time to near-real time in day and night conditions and are capable of target engagement with lethal and less-than-lethal means. When necessary, these sensors link to more capable and robust networked engagement systems that provide more powerful lethal or less-than-lethal effects. To supplement these systems, convoy security forces accompany convoys as needed to ensure protection from limited threats. When needed, route repair and maintenance assets are dispatched to repair problems identified by ISR inputs, convoy personnel, or assets conducting operations.

> ***Foreign consequence management is "assistance provided by the United States government (USG) to a HN [host nation] to mitigate the effects of a deliberate or inadvertent CBRNE attack or event and to restore essential government services."[1]***
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> ***—Joint Publication 3-41***

Summary

Over the next several months, this Integrated Concept Development Team will be developing the Maneuver Support CCP, which will illustrate the

Photo by Sergeant Seth Myers

A Soldier from the 739th Engineer Company (Multirole Bridge) drives the raft doing reconnaissance in the area before a bridge is laid down during Exercise Patriot Warrior at Fort McCoy, Wisconsin. This raft will also provide security when the bridge is being built.

means by which maneuver support elements directly and indirectly contribute to optimized movement and maneuver through their direct actions in the physical operational environment and their support to IE. It will show how the reinforcing capabilities of engineer, military police, CBRN, EOD, civil affairs, and other elements directly support movement and maneuver through reducing, removing, neutralizing, rendering safe, or mitigating explosive or nonexplosive obstacles and hazards. The CCP will describe support to ground and aviation transportation infrastructure in support of maneuver. It will also describe the means by which the results of the physical activities of maneuver support elements, both in combat and noncombat missions, are best translated through the use of IE into messages intended to minimize adversarial activity within the area of operations.

The maneuver support CCP will also describe a set of capabilities necessary for future maneuver support forces and to meet continuing needs already identified in the FY 2010 – 2015 Capability Needs Assessment. These capabilities, if achieved, will enhance ISR and physical mission accomplishment, whether conducted on-site by live personnel or by teleoperated or autonomous robotic platforms. Other needed capabilities include the means to actively and passively detect, destroy, or neutralize explosive hazards at standoff distances and at tactical speeds; the means to rapidly cross gaps and enable movement across complex terrain; and the means to deny adversaries the ability to move or maneuver. Additional capabilities will include means for safely and rapidly managing populations and neutralizing adversaries with nonlethal means. The force will require capabilities that enable safe, remote mitigation of large- or small-scale CBRN hazards and to deliver tailored and persistent IE messages to any target audience. Other solutions in leader development, personnel, and facilities will further support this concept.

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Endnotes

[1] JP 3-41, *Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management Joint Operating Concept,* 2 October 2006, page vi.

[2] JP 1-02, *Department of Defense Dictionary of Military and Associated Terms,* as amended through 30 May 2008.

[3] FM 3-0, *Operations*, February 2008.

Portions of this article were extracted from the Maneuver Support Concept Capability Plan version 0.3.