

Multi-Domain Battle: Fundamentals in an Evolutionary Environment

Multi-Domain Battle will require sustainers who focus on the basics, understand how the Army runs, continue to grow professionally, and provide precise, timely, and accurate support.

■ By Lt. Gen. Aundre F. Piggee

In *This Kind of War*, T.R. Fehrenbach states, “You may fly over a nation forever, you may bomb it, atomize it, pulverize it and wipe it clean of life. But if you desire to defend it, if you desire to protect it, if you desire to keep it for civilization, you must do this on the ground the way the Roman legions did . . . in the mud.”

Muddy boots are just as important in today’s Multi-Domain Battle (MDB) environment as they were 55 years ago, when Fehrenbach penned this statement about the Korean War to explain the nature of ground combat. Chief of Staff of the Army Gen. Mark A. Milley introduced the MDB concept and described a future battlefield where our forces may no longer dominate across the land, air, maritime, space, and cyberspace domains.

Our adversaries already have, or will have, long-range precision fires, advanced weapons technologies, and drones. They may be able to hack into our systems and jam our networks, making battlefields, including urban areas, more chaotic and lethal than any we have yet to see.

You may be asking yourself, “What does this mean for logisticians?” In MDB, it will be even more critical to precisely meet the needs of the warfighter with accurate quantities of required materiel at the right locations and at the right time. We can no longer operate with “iron mountains.”

Preparing for MDB

In the last year, the Army G-4 office has taken many developmental steps that lay the foundation for the

Army to successfully fight in an MDB environment. We have grown Army pre-positioned stocks and assembled them in ready-to-fight configurations to quickly equip forward combat forces.

We have already divested or redistributed more than 825,000 pieces of excess equipment. Our goal is to divest another 1.7 million obsolete major end items over the next two years.

We have also completed the fielding of Global Combat Support System—Army, Increment 1, which is improving materiel management. We are capitalizing on the unprecedented data that the system is providing to improve readiness.

Many other Army logisticians are involved too. In this issue of *Army Sustainment*, you will read how we are already supporting the MDB fight in urban areas of Iraq under the leadership of Brig. Gen. Christopher Sharpsten.

Logistics Technologies for MDB

At Gen. Milley’s direction, the Army also is aggressively exploring “leap ahead” technologies that will radically change methods to resupply the force. We are supporting the development of autonomous ground, aerial, and watercraft capabilities to move supplies to widely dispersed units.

If the commercial industry can deliver products to customer’s doorsteps with driverless vehicles and drones, the Army should be able to conduct convoys along similar timelines with manned and unmanned teams when weather, terrain, and enemy threats



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HIP-POCKET GUIDE

TWO-LEVEL MAINTENANCE (FIELD AND SUSTAINMENT ACTIONS)



A U.S. ARMY
LOGISTICS, G-4
PRODUCT

FIELD MAINTENANCE ACTIONS (FSC, FMC, AND SMC)

- 1 ON OR NEAR SYSTEM
- 2 FEWER ACTIONS REQUIRING TOOLS
- 3 CONDUCTED ON COMPONENT ACCESSORY
- 4 ASSEMBLY, SUBASSEMBLY, PLUG-IN UNIT
- 5 SHOP REPLACEABLE UNIT, LINE REPLACEABLE
- 6 UNIT OR OTHER PORTION OF SYSTEM
- 7 REPAIR OF COMPONENTS AND END ITEMS
- 8 GIVEN PROPER TOOLS, REPAIR PARTS
- 9 REFERENCES AND TIME

INCLUDES:

- A. ADJUSTMENT
- B. ALIGNMENT
- C. SERVICE
- D. FAULT/FAILURE DIAGNOSES
- E. FIELD LEVEL MWO APPLICATION
- F. BATTLE DAMAGE AND ASSESSMENT REPAIR

SUSTAINMENT MAINTENANCE ACTIONS (DEPOT)

- 1 OFF-SYSTEM
- 2 DISASSEMBLE/ASSEMBLE
- 3 REPAIR TO NATIONAL STANDARDS
- 4 REQUIRES WIDE VARIETY OF TOOLS
- 5 COMMODITY ORIENTED PARTS

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HIP-POCKET

GUIDE

FIELD MAINTENANCE WORK FLOW



U.S. ARMY
LOGISTICS, G-4
PRODUCT

**OPERATOR/CREW
CONDUCT PMCS
AND RECORD
ON INSPECTION
WORKSHEET
(DA FORM 5988-E)**

- 1. NO FAULT DISCOVERED
- 2. RECORD DATE

- 1. FAULT DISCOVERED
- 2. FAULT CORRECTED ON THE SPOT
- 3. CORRECTIVE ACTION RECORDED

- 1. FAULT DISCOVERED
- 2. FAULT RECORDED
- 3. FAULT CANNOT BE REPAIRED BY OPERATOR

MAINTENANCE AND INSPECTION
WORKSHEET TURNED IN TO
MAINTENANCE SUPERVISOR

MAINTENANCE SUPERVISOR
VERIFIES REQUIREMENTS AND
ASSIGNS MECHANIC TO TASK

GCSS-ARMY CLERK
UPDATES COMPLETED
REPAIR/INSTALLED
PART ON DA FORM
5988-E

REPAIR INSPECTED
BY MAINTENANCE
SUPERVISOR

MECHANIC REPAIRS
FAULT/INSTALLS
PART ON HAND

MECHANIC
VERIFIES
FAULT

DISPATCH

PARTS NEEDED
FOR REPAIR

EQUIPMENT
STILL FMC

EQUIPMENT
NMC

GCSS-ARMY
GENERATES A
DA FORM
5987-1-E
(MOTOR
EQUIPMENT
DISPATCH)

GCSS-ARMY
CLERK ADDS
FAULT TO
EQUIPMENT
DATA RECORD
AND ORDERS
NEEDED
PARTS

REFERENCE: ADAPTED FROM DA PAM 750-3



The high technology that the next war will bring may change war's character, but none of it matters if we cannot get our vehicles out of our motor pools or our helicopters off the airfields. (Illustration by Samuel Curtis)

pose too many risks.

Getting repair parts on a battlefield hours after they are needed is too late, so we are exploring additive manufacturing capabilities for repair parts and tools at forward positions at or near the point of need. This would reduce delivery time, distribution requirements, and storage.

In the future, Soldiers may have the capabilities to produce water themselves, use alternative fuels, and operate apart from existing power grids. We are looking to develop these types of innovations as well.

There are many obstacles to achieving what may sound like “mad science” to some. These challenges should not deter us.

Four Tips to Prepare for MDB

The Army must ensure it is prepared for the battlefield of the future, which may emerge faster than we expect. It is not too early for individual sustainers to be prepared as well. Here are four things that you can do.

1. Keep focused on the basics. All of the wizardry of high technology that the next war will bring may change war's character, but none of it matters

if we cannot get our vehicles out of our motor pools or our helicopters off the airfields.

When the enemy damages or disrupts our power supplies or jams our networks, you may find that you have to do things the old-fashioned way: reading maps, using manual battle tracking, engaging in more direct communications, and using analog technologies.

We saw this recently in Puerto Rico with the Army's support of hurricane recovery efforts. One of the biggest challenges that Soldiers faced in Puerto Rico was operating without power or internet connectivity. Even as you focus on the basics, understand that the basics are evolving too. You will need some new skills, such as being adept at using technology.

2. Be precise, timely, and accurate. In the MDB environment, sustainers cannot be bureaucratic and slow. We have to act fast. We must modernize for greater lethality. We have to equip Soldiers to fight and win across all domains, and we must remain a learning and adaptive organization.

3. Understand how the Army runs. In this edition, you will see an arti-

cle about two-level maintenance by Brig. Gen. David Wilson, the Army chief of ordnance. Two-level maintenance is important in the context of MDB because, as logisticians, we need to understand current policy and doctrine. We need to understand how it shapes and is shaped by force structure and how policy, doctrine, and force structure are all interrelated and support how we operate.

Knowing our craft is something that I emphasize every day because I have been in situations where I had munitions but not in the right location, where I had an abundance of fuel at the port but was challenged to get it to the foxhole, and where I had difficulties getting equipment to early-entry forces who needed to move quickly. Working together as a disciplined logistics team with a full understanding of the processes, doctrine, and operational environment, we can supply the fight and meet requirements.

4. Continue to grow professionally. The enemy's goal is to counter our comparative military advantages, what have long been our strengths: our ability to outmaneuver our adversaries, our development and use of innovative technologies, and our rapid adaptation of successful techniques, tactics, and procedures. We must retain advantages that can never be taken away. Our values of culture, leadership, trust, and integrity are currency that no one can steal. But, they require dedicated effort, hard work, and sacrifice to maintain.

General of the Army Omar Bradley once said, “The matter of learning is one of personal preference. But for Army officers the obligation to learn, to grow in their profession, is clearly a public duty.”

Take that duty seriously. As the Army prepares for an unforgiving future war, instill in yourself the fundamental skills you will need.

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