



# Landpower Essay

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## Our Army's Campaign of Learning

Remarks by General Martin E. Dempsey,  
Commanding General, U.S. Army Training and Doctrine Command,  
at the Association of the United States Army's Chapter Presidents' Dinner,  
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### Introduction

Tonight I want to share with you some thoughts about the challenges confronting our Army as it moves into its ninth year of war and discuss a few of the major initiatives we're undertaking in TRADOC [U.S. Army Training and Doctrine Command] to address them. But I'd like to begin by establishing why what we do is so darned important.

Some of you may remember the picture of Lieutenant Rick Rescorla on the front cover of Hal Moore and Joe Galloway's book, *We Were Soldiers Once... and Young*. It's a very powerful image and there's an equally compelling story that goes along with the photo. Rick Rescorla is at Landing Zone X-Ray during the Battle of the Ia Drang Valley in Vietnam and has just been asked, on day two of the battle, to get out of the relative safety of his prepared battle position, his foxhole, and close with and destroy the enemy.

As he moved out from his position, he was caught by a combat photographer, and the whites of his eyes tell you all you need to know about the intensity with which he's moving. The way his hands are gripped firmly on his M-16 rifle, his posture, his demeanor and everything else about that picture is intensity in action. That's because he's moving into a situation he doesn't really understand, and he doesn't know what danger he might face in the next few seconds.

It is our enduring challenge as leaders to convince young men and women like Rick Rescorla to place their lives at risk for something larger than themselves. We must never forget that. We are blessed as a nation to have them, and we must rally around them and their families—we must be their "Verizon Network"—as we prepare them for battle.

Let me tell you something else about Rick Rescorla. He managed to survive this ordeal, came home from Vietnam, and after a very successful career in the Army, went to work for Morgan Stanley in New York. On September 11, 2001, he was working in the south tower of the World Trade Center when the planes hit. As you'd expect of someone with his background and experience, he immediately took control of the situation and began helping his fellow workers evacuate.

Meanwhile, he called his wife on the phone, which is why we know so much of this after the fact. She pleaded with him to get out of the tower. He replied, "I can't. The people I work with are counting

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on me. I have to get these people out safely.” So he perished on September 11, 2001. And earlier this year he was awarded a posthumous medal by the Congressional Medal of Honor Society. Rick Rescorla believed that leadership was a lifelong commitment.

My message to you is that’s exactly the kind of men and women we have today—the kind who care more deeply about their country and their fellow Soldiers than they do about themselves. As we go through this week, we’re going to talk about emerging technologies and equipment, we’re going to talk about emerging concepts and doctrine, we’re going to talk about acquisition reform and leader development. We’re going to talk about a lot of things. But it all must link back to Rick Rescorla and his successors in uniform serving today in Afghanistan, Iraq and elsewhere around the world. I know none of us will forget that.

I want to talk with you tonight about four emerging trends in the operational environment and how we must address them in our concept development, our leader development and our modernization strategy.

### **The Certainty of Uncertainty**

If you’re a closet fan of the Weather Channel, you might know that we’ve just passed the peak of hurricane season. Having spent the past couple of years based out of Tampa, Florida, and living now at Fort Monroe [Virginia], just a stone’s throw from the mouth of Chesapeake Bay, this fact provides me only a limited measure of relief. Because, as Yogi Berra once said, “it ain’t over till it’s over,” and there are still two more months to go. You’ve got to feel for the folks down in Miami who try to predict the path and intensity of these big storms with people’s lives hanging in the balance. You’ve probably seen how they always place a “cone of uncertainty” in front of the projected storm track. The farther out the forecast goes into the future, the wider the cone. That’s because the atmosphere is such an incredibly complex and unpredictable system. The computer models they use can’t even begin to account for all the variables. So, the farther they project into the future, the greater the uncertainty in their forecast.

The analogy here is probably pretty clear.

The security challenges that are right in front of us present us with a rather limited cone of uncertainty, but the farther out we try to look the wider the cone of uncertainty. In Training and Doctrine Command in particular, and in our Army in general, we’ve got to prepare for the near-term challenges we see and be agile enough to adapt to the future as it presents itself to us.

As the commander of Training and Doctrine Command I’ve become a voracious reader. I think it’s really important for us to learn as many lessons as we can, not just narrowly inside the military, but from business, from economics, from cultural anthropology, and from other disciplines that help us to better “see ourselves.”

There are some ideas I’d like to share with you from an interesting book I read recently called *The Age of the Unthinkable* by Joshua Cooper Ramo. He discusses something he calls the “sandpile effect” to describe uncertainty in the 21st century. He talks about biologist Per Bak, who conducted an experiment with sand piles. Bak built sandpiles by adding a grain at a time to determine if it was possible to predict the point when the mound would collapse or shift. It wasn’t. He concluded that it’s less about what you can see on the outside of the sand pile that predicts when it will crumble and more about what’s going on internally. He found it impossible to predict the interaction of forces that would eventually result in the collapse of the sandpile.

Cooper compares Bak’s experiment with modern-day events such as the collapse of the Soviet Union to make his point. As you know, some have looked back and said they saw the Soviet collapse coming. Frankly, I don’t think anybody really saw it coming. Similarly, I haven’t met anyone who claims to have anticipated the depth and breadth of the recent collapse of the financial markets in this country and around the world. Making these types of predictions is difficult because of the way the world has become interconnected, networked and therefore more interdependent. Cooper postulates

that this interdependence and its resultant uncertainty may make us less resilient. One thing is clear: there is a connected part of our world and there's an unconnected part, and what may come from the interaction of the forces that exist in the gap between them may be as incalculable as the sand internal to Bak's sandpiles.

We must acknowledge the certainty of uncertainty as we build our Army for the future.

### **The Pace of Change**

The second trend is the pace of change. About 150 years ago, if you wanted to send a piece of information from coast to coast, at some point it would have ended up in the saddlebag of a Pony Express rider, and you could have measured the time it would take to arrive at its destination in weeks or months. If you think back to the middle of the last century, when you mailed a letter, it would take several days to get where it was going. Today, we transfer billions of bytes of information every second.

The pace of change today can be almost unimaginable to those of us who call ourselves adults. By contrast, our kids and grandkids expect it. If you buy an iPhone today, you will enter into a two-year contract. They make you enter into a two-year contract because, if they didn't, you wouldn't keep it for more than about six months. Technology changes exponentially. That's the world in which we live. It is more dynamic, more transparent and more accessible. Some argue that this makes it more stable. Perhaps, but perhaps not.

As an institution, we're coming to recognize that the pace of change also requires us to look at the future differently than we have in the past. Rather than trying to leap ahead decades into the future and design a force adequate for any task and for many years, we need to design a force that is adequate for the tasks we know we must accomplish and that can adapt much more quickly than in the past.

In the near term, we know what the most likely threats will be: non-state actors, insurgents, criminals and terrorists. But make no mistake about it: these threats have the potential to be as dangerous as any state actor or near-peer competitor because of their access to state-of-the-art weapons, training and advanced information technologies.

### **Increased Competitiveness**

This leads to the third trend I want to discuss tonight, and that is competitiveness. We live in a world that is far more competitive than the world of the 20th century in every sector—business, industry, academia and security.

Consider Hezbollah. The Israelis attacked Hezbollah in the summer of 2006 believing they were going to encounter an insurgency, a militia, and generally anticipating low-intensity conflict and peacekeeping operations. Instead they encountered a militia that was as lethal, as well-trained, as well-organized and as well-equipped as any nation-state actor they might have confronted.

Our own experiences over the last eight years and our observations of recent conflicts around the globe reveal a much more competitive security environment as technologies are transferred and as non-state actors gain access to capabilities that were in the past the purview of nation-states.

The important corollary of this is that we live in a *competitive learning environment*. The nation and its leaders that learn faster and understand more fully than their competitors will prevail.

In fact, I personally believe that military power in this century will be defined, not in terms of throw-weight, or tanks, artillery pieces and aircraft, but rather in the ability to adapt—to take the organization you have and adapt it to the organization you need faster than your competitors. That's an important point, and one that makes us a bit uncomfortable. We have well-designed and finely-honed deliberate processes to procure equipment, build programs of instruction, develop leaders and define modernization. But we've got to understand that, in an era of uncertainty, rapid change and increasing competition, we've just got to change faster.

## **Decentralization**

That leads me to the fourth trend—decentralization. There's another impressive book, by Ori Brafman and Rod Beckstrom, called *The Starfish and the Spider*. In it, the authors contrast different types of organizations. They describe some as spiders—hierarchical organisms that die if you cut off the head. They describe others as starfish—decentralized organisms. If you cut off the arm of a starfish, the arm grows another starfish, and the starfish grows another arm.

Our adversaries are becoming much more like starfish; that is, decentralized and networked. My good friend Stan McChrystal [General Stanley A. McChrystal, Commander, International Security Assistance Force-Afghanistan/Commander, U.S. Forces-Afghanistan] often says that it takes a network to defeat a network, and I think he's absolutely right. We must find ways to empower the edge of our formations to address this evolving reality in the operational environment. In short, we too need to become more decentralized and “networked.” Fortunately, we have a network—that is, our network of joint, interagency, intergovernmental and multinational, or JIIM, partners.

So, in response to this trend we need to decentralize capability and authority to the edge, and we need to more closely partner with our JIIM network. We're doing that today.

Yet as we decentralize we should heed the cautionary advice presented in another terrific book: *The Wisdom of Crowds* by James Surowiecki. This book persuasively asserts that the best decisions and the best judgments are always made by groups, not individuals, regardless of the level of expertise of the individual. Therefore, as we decentralize capability and authority *to* the edge, we also need to recognize the requirement to aggregate information and intelligence *from* the edge—because in this complex environment of decentralized and networked adversaries operating among populations, the best information, the most important intelligence and the context that provides the best understanding come from the bottom up, not from the top down.

The challenges of decentralization are not unique to the military. I'm sure a few of you remember a music-sharing website a few years ago called Napster, where you could download free music. It operated as person-to-person shareware. It was no surprise that the music industry took offense as they watched revenue passing beyond their reach.

Because Napster started out as both decentralized and largely unstructured, they were difficult to attack. But as Napster began to prosper they established a server farm and created a headquarters. At that point, the record industry finally sued them and won.

A few months ago, at a leadership seminar, I met a lawyer who represented the record industry against Napster. He shared that experience, and we discussed the challenges hierarchical organizations have competing with decentralized organizations. His insights were enlightening.

He said the victory against Napster was like dropping a bowling ball into mercury. When you think about it, that's really what happened. The outcome had no impact on the supply of free music over the Internet as websites proliferated to meet the demand. When attacked, a decentralized organization further decentralizes.

We've learned that lesson. We are increasingly an organization that is empowering lower and lower echelons of command. Yet we have to figure out how to balance decentralization with the ability to aggregate information from that empowered edge. As I've stated, but it's worth repeating, the best information and intelligence—and the context most vital to developing understanding—comes to us principally from the bottom up.

## **The Strategy Paradox**

I want to describe another image that will help illustrate my next point. There is a bridge in Honduras called the Choluteca Bridge. It was donated by the Japanese a little more than a decade ago. It was considered to be among the best engineered and most well-built bridges in the world. The Japanese built it to last.

Well, in 1998 Hurricane Mitch struck and moved the river. That's a true story. I'm not making that up. You can Google it! So now, this state-of-the-art bridge is sitting several hundred meters off the river. In fact, it probably shouldn't even be called a bridge anymore, because it's not bridging anything.

That's the risk we run, ladies and gentlemen, if we're not careful. We could certainly design an Army that is state-of-the-art, that is extraordinarily effective for one thing, and that's built to last. However, if the tides of uncertainty move our world, we could become irrelevant. We can't allow that to happen.

We are very good—one could argue no one has ever done it better—at preparing and adapting to the threats we have faced as a nation. Yet there is a Strategy Paradox that should give us pause.

In *The Strategy Paradox*, Michael Raynor notes that, “The prerequisites of success today are the antecedents of failure tomorrow.” Many organizations have learned the lesson that over-preparedness for one possible contingency almost guarantees that you will be unprepared for all the other possibilities—a risky proposition in an era of uncertainty. We have to understand and account for this paradox. So here's what we're going to do about it.

### **The Army Capstone Concept**

The Army Capstone Concept, scheduled for publication in December, will articulate how the Army thinks about future armed conflict under these conditions of uncertainty, change, competitiveness and decentralization. It uses *grounded projections* to describe the broad range of capabilities the Army will require to overcome a combination of hybrid threats and adaptive adversaries in an increasingly competitive operating environment. It describes how the Army will conduct full-spectrum operations on land as part of a joint, interagency, intergovernmental and multinational team to attain strategic objectives consistent with national policy.

One of the central themes of the concept will be the idea of *developing the situation through action*. If the last eight years have taught us anything, they have revealed that some of our assumptions about the ability of technology to provide situational understanding and to “lift the fog of war” were not entirely achievable. For example, the assumption that information superiority would allow the joint force to economize on manpower and trade off protection and firepower for standoff and precision has not been realized in an environment where our adversaries adapt, decentralize and operate among the population. Our concept revises this assumption and several others.

In addition to describing how we will fight in the future, the capstone concept will also address important aspects of institutional adaptation in the Army. When we adopted the ARFORGEN [Army Force Generation] model as a way to provide cyclical readiness and support extended wartime requirements, it had significant implications for how the Army organizes, mans, trains and equips the force. Similarly, the precepts and ideas contained in the capstone concept will provide the rationale and logic for other significant changes in the Army. Revisions to doctrine, training, leader development and modernization will derive from the vision of future conflict outlined in this document.

Finally, the Capstone Concept will guide future force development by establishing a conceptual foundation for subordinate concepts, experimentation and capabilities development. These will enable the Army to apply its finite resources in a way that develops the most needed capabilities with an emphasis on integrated and resource-informed outcomes.

At this point, I want to return to the idea of the *competitive learning environment*. We have to learn more quickly and understand more fully than our adversaries to prevail in the future operating environment. As part of implementing the Army Capstone Concept, we have embarked on a *campaign of learning* in TRADOC. Based on the Capstone Concept, we have identified a number of warfighting challenges—22 currently—and we are leveraging our Centers of Excellence to answer them. This work

will inform functional assessments, Total Army Analysis, experimentation and our leader development, collective training and modernization strategies.

I'd like to update you on two of these tonight: the Army Leader Development Strategy and the Army's revised modernization strategy.

## **Leader Development**

We have to develop leaders who understand that context matters. The complexity of today's challenges and the uncertainties of tomorrow require a much broader approach to leader development and a clear understanding of the operating environment. It's for this reason that we recently published a new leader development strategy for a 21st century Army.

As the nation's campaign-capable force, the Army must prepare its leaders to execute missions over extended periods. Campaigns mean time, time means change, and change requires leaders who can anticipate change, create opportunities and manage transitions. Stated another way, our leader development strategy describes a shifting balance of tactical and operational art as our adversaries decentralize, network and operate among the people to overcome our technological advantages and as we string together actions and activities—some kinetic and some non-kinetic—to produce campaign-quality outcomes. This demands that we develop leaders who can lead increasingly decentralized organizations, who can understand complexity and who can manage uncertainty.

Many aspects of leader development are timeless, and these will not change. Our strategy builds upon these characteristics to better prepare our leaders for the future. The Army Leader Development Strategy requires a balanced commitment among the three pillars of leader development—training, education and experience—and considers the development of leaders to be a career-long process.

The strategy builds on our Army's eight years of combat experience, but documents the need to broaden leaders beyond their demonstrated competency in irregular operations toward proficiency in full spectrum operations. There are gaps in our current leader development strategy, and we will close them. For example, even our most junior leaders today have access to capabilities while deployed that are not replicated in the CONUS [continental United States] training base, and we are working hard to resolve that through the implementation of our leader development strategy.

Our leader development enterprise is comprehensive. It encompasses officer, NCO [noncommissioned officer], warrant officer and civilian components and synchronizes each of these into an integrated whole. Speaking of NCO development, I'm sure you all know the Chief has designated 2009 as the Year of the NCO. AUSA has done its part by dedicating this convention to our NCOs and recognizing them as the "Strength of the Army." In TRADOC, we have established an Institute for NCO Professional Development. This organization, led by NCOs, will provide direction and oversight of noncommissioned officer education and development across the Army. In addition, this year we designated the first noncommissioned officer commandant in the history of the U.S. Army Sergeants Major Academy. The intent is to give both responsibility and accountability to NCOs for their professional education.

Our leader development strategy doesn't define a specific end state. Rather, it seeks to be as adaptive and innovative as the leaders whose development it will guide. Our objective is to deliver the leader qualities defined in our capstone doctrine, FM 3-0 [Field Manual 3-0, *Operations*], and described in the Capstone Concept for Joint Operations. The strategy does this by cross-walking these broad leader qualities with specific outcomes to be achieved over the course of a career.

In the coming months, the Combined Arms Center at Fort Leavenworth [Kansas] will complete its revision of our planning doctrine, FM 5-0 [*Army Planning and Orders Production*]. My direction to them last spring was to integrate the concept of "design" into FM 5-0 to ensure all leaders develop the ability to understand and frame complex problems to complement our traditional Military Decision Making Process. This revision supports our leader development strategy by growing leaders who know

*how* to think, not *what* to think. In addition, it will provide commanders with a cognitive tool to reframe problems as conditions change—a skill that’s critical to anticipating and managing transitions over time in a campaign-capable force.

### **Adapting our Modernization Strategy**

The second major initiative is how we will adapt our modernization strategy. I discussed the idea of “design” just a moment ago. Design emphasizes the fact that “context” matters. It’s about applying a cognitive tool to anticipate change and manage transitions. In this context, our force modernization strategy must respond to a “new norm” of complexity, uncertainty and rapid change. This era of persistent conflict requires more than just small course corrections in how we view modernization—it requires a completely new approach within an entirely new “context” for an Army of the 21st century. Let me elaborate a bit and outline a new course and mindset that will allow us to be innovative in how we provide enhanced capabilities across our formations.

In the past, we viewed modernization programs predominantly and narrowly as a material expression or a change in an organizational structure. While those material adaptations remain an essential component of our modernization effort, this alone is not adequate to respond to the pace of change in a manner that is timely and comprehensive. An integrated and holistic look at modernization must include and recognize the interdependence of all our adaptations across the DOTMLPF [Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities]. If we consider power in the 21st century to be less about throw-weight and more about adaptation, then we should seek to provide capability “packages” to deploying units that provide not only material improvements but also complimentary doctrinal, organizational and other adaptations. In short, we should provide a suite of “incremental capabilities packages” across the DOTMLPF, synchronized to ARFORGEN, to a constantly adapting Army.

With that in mind, let me discuss briefly how we’re revising our modernization strategy. As you all know, last spring the Chief tasked TRADOC to develop a new strategy for BCT [brigade combat team] modernization. Task Force 120—so named because we had 120 days to come up with a new plan—set out to define the resource-informed balance of capabilities the Army requires to remain versatile enough to confront future uncertainty. The plan they produced describes the characteristics and key performance parameters for a new ground combat vehicle.

The task force began by reviewing the lessons learned over the last eight years of war and comparing them to the set of assumptions that drove much of our FCS [Future Combat Systems] thinking. We then sought to align our approach with both the POM [Program Objective Memorandum] and ARFORGEN cycles. The result was a set of two-year capability packages that could be fielded to units as they move through their respective readiness and deployment windows. These form the basis for our recommended modernization priorities, which are intended to close the highest priority capability gaps first.

As I discussed earlier, what’s become apparent during this effort is the compelling logic for a shift from the long-term, leap-ahead approach of the FCS program to an incremental BCT modernization plan that uses shorter time horizons aligned to ARFORGEN. Such an approach preserves our focus on the requirement to provide a versatile mix of networked BCTs that can leverage mobility, protection, information and precision fires. In this way, Task Force 120 has provided the Army a real opportunity to adapt its modernization processes by using an approach that accommodates and responds to the speed of technological change while sustaining readiness. We’re not abandoning the future, but we are pulling it closer to us.

Looking ahead, TRADOC will work with the department to refine and complete a comprehensive modernization and vehicle strategy in the near future. By applying the grounded projections of the Army Capstone Concept to guide the way we prioritize, develop and integrate capabilities, we’ll address our most pressing needs and close the most significant capability gaps while improving our ability to adapt as new threats emerge and become clearer. That’s the true spirit of institutional adaptation.

## **Conclusion: The Role of Leadership**

The initiatives I've shared with you tonight represent a major investment of intellect and resources from across TRADOC and the Army. All of them are important, but if I had to prioritize them, I would tell you that leader development is job #1. I say that because when our Army is sent into battle in the future, it's likely that our organizational design won't be 100 percent right. It's likely that our material solutions won't exactly meet our needs. Our doctrine will need revision, our training will need adjustment, and the guidance we provide will never be completely adequate. It is our leaders who have and will continue to get it right for our nation.

When I leave Washington, D.C., later this week, I'll return to Fort Monroe, where we'll continue to monitor the closing months of hurricane season. And just like disaster officials up and down the coast who have to prepare for the widest range of situations depending on where a hurricane might make landfall, we in TRADOC will work to build an Army that is adaptive and innovative enough to handle the "cone of uncertainty" presented to us by the future operational environment. In so doing, we'll also build an institution that's agile enough to redesign itself on a compressed timeline. It's the certainty of uncertainty that captures most accurately why we need to strive for balance and versatility in developing a campaign-capable Army for the 21st century.

TRADOC is out in front and meeting this challenge head-on. Victory starts here!



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