

Combat exacts a moral cohesion, a solidarity more compact than ever before... The more men [and women] think themselves isolated, the more need they have of high morale. We are brought by dispersion to the need of cohesion greater than ever before. ¹

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PHOTO: U.S. Army Soldiers from 52d Signal Battalion, Patch Barracks, Vaihingen, Germany, learn small-unit tactics, during a Warrior Training Exercise near Baden Wurttemburg, Germany, 5 May 2009. (U.S. Army, Eric Steen)

ITH THE ADVENT of the Obama administration, the U.S. Army embarked upon a significant shift in military effort.² The primary U.S. strategic focus no longer remains rebuilding the state of Iraq. It has moved toward countering the Taliban insurgency in the mountainous regions of Afghanistan. Every environment is different from a military operations perspective, and Afghanistan certainly does not closely resemble its Iraq counterpart. Strategically, the numerous differences between Iraq and Afghanistan suggest that Afghanistan will be a greater challenge. Its terrain, climate, populace, natural resources, culture, and infrastructure all make operations in Afghanistan more difficult. Moreover, Afghan tribal warriors have historically displayed tenacity in insurgency. To compound these difficulties for our forces, critics argue that the U.S. military and its supporters must move to the rural segments of Afghanistan if the coalition is to be successful over the long term. Counterinsurgencies are seldom won from the confines of centralized base camps.

In all of this, the trends indicate the need for decentralized positions, distributed operations, effective small-unit leaders, and well-trained small units that must bear the brunt of close combat. The more decentralized operations are, the greater the reliance on effective leadership and small-unit performance. Recent research has revealed that we can best counter a decentralized, network-enabled enemy if our forces too are decentralized and network-enabled.³ Moreover, the tactics of the Taliban and Al-Qaeda to target civilians, schools, and crowded markets have placed a premium on discernment, perspective, and excellence in decision making at the small-unit level. The responsibility required of leaders and units at lower levels of command is clearly increasing, as is the potential that small units will continue to bear the brunt of close combat in the years to come. Units will fight separately and operate more independently with a greater need to be

self-sustaining. Has the U.S. military done all that it can to improve small-unit performance and to develop small-unit excellence?

In the future, beyond Afghanistan, the range of challenges that we could potentially confront will become even greater. Our adversaries will certainly strive to decentralize, network, and operate among the people to blunt U.S. technological advantages. Thus, our continued success requires greater decentralization of capability, excellence in decision making, and the authority to overcome increasingly networked, decentralized threats. Simply stated, this requires us to increase our commitment to small-unit performance and leader development. One initiative, the Army Leader Development Strategy for an Expeditionary Army, underscores our increased commitment to develop leaders who are comfortable operating amidst this complexity.

This article sheds light on the characteristics of high-performing small units, expands on key Army Leader Development Strategy ideas, and considers ways to enhance small-unit performance. In the end, we will only achieve success through increased dialogue, a willingness to challenge the status quo, a sense of shared responsibility, and our persistent commitment across the Army.

Characteristics of High- Performing Small Units

Seeking improvement in small-unit performance is as old as warfare itself. Polybius detailed the small-unit performance of the Roman army in The Histories, Book X, circa 146 BCE4 In this particular treatise, he highlighted the specific techniques used by Roman soldiers to plan and execute the destruction of the defenders of the walled city of Carthage. In 450 CE, Flavius Vegetius Renatus wrote De Re Militare, a prominent guide to improve small-unit performance for the Roman army, in an attempt to restore basic discipline to frontline units.5 Nonetheless, merely stating that this has always been a goal does not preclude our need to continue to study how to maximize our capacity for attaining small-unit excellence today.

The traditional definition of a small unit tends to refer to the company level or below; however, the actual size of this unit may vary, depending on the scope, scale, and complexity of the mission.

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Effective leadership. Effective leadership is not a journey in pursuit of perfection, but a continuous development process. The U.S. Army has been developing small-unit leaders since its inception and has published Army leadership manuals for decades. The current Field Manual 6-22, Leadership, defines those who lead. It states, "Leaders motivate, inspire, and influence others to take initiative, work toward a common purpose, accomplish critical tasks, and achieve organizational objectives. Influence is focused on compelling others to go beyond their individual interests and work for the common good." Leadership deals with a broad range of skills. While not all-inclusive, leadership involves everything from demonstrating tactical and technical proficiency to motivating and building trust-from exemplifying the Warrior Ethos to fostering teamwork and cohesion.6 "Be, Know, Do" is a more simplified version of an extremely complex set of characteristics.

We may have to incorporate initiatives earlier in the recruitment process. Efforts to bring early leadership opportunities to high school campuses may prove valuable over the long term. In addition, early screening of potential candidates, using human dimension tools, may help identify high quality candidates more effectively than the traditional screening provided by a high school diploma.

There is also work underway in the area of "trust" between leaders and subordinates. The Army Research Institute has initiated several projects to explore development of trust, including its swift development in ad hoc teams, scenario training for adaptive teams, and the Tactical Human Integration with Networked Knowledge efforts. Meanwhile, the Army's Asymmetric Warfare Group is researching new techniques and methodologies in Outcome Based Training and Education. These initiatives may inform our understanding of leadership development and guide our efforts. Certainly, leadership is essential to any endeavor to improve small-unit performance.

Effective use of information. Exceptional small units actively seek and acquire information and use it effectively, an imperative in complex environments today. The rigorous demands of counterterrorism and counterinsurgency operations require that small units have access to national level databases, especially human intelligence databases. These databases expand the venues for leaders to learn from the edge, since many receive direct feeds from liaison elements on the tactical front. The Distributed Common Ground System-Army is available, but we need to train our Soldiers to leverage these assets. The notion that leveraging is limited to higher-level headquarters units is no longer valid.

Moreover, the RAND study *Characteristics of High-Performance Units* found that "high-performance units do exist and one common characteristic is the effective use of information." These high-performance units "value information and use it by integrating information (either what is available or planning to get what they need) into operational plans." Information in these organizations was not stovepiped, but dynamically integrated into unit operations to assist Soldiers with understanding the environment, making decisions, disseminating new information, and providing information to subordinates.¹⁰

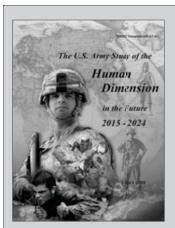
In addition to a common understanding, the high performance units possessed a common vision of how the operation would unfold. Information and vision improved cohesion and teamwork to achieve mission success. Units that do not value information do so at their own peril. Subsequently, the Army must strive to decrease Soldiers' loads while connecting them to networks with applications that have been developed faster and increasingly leverage commercial infrastructures, such as the RITE capability (Relevant ISR [intelligence, surveillance, and reconnaissance] to the Edge). RITE uses satellite communications, an airborne layer, and third and fourth generation network extensions to provide network access to remote users.

...high-performance units [possess] a common vision...

Competent decision making. Small units demonstrate competence in the art and science of decision making. However, all small units do not necessarily excel in making effective decisions. Certainly core skill sets for decision making involve understanding, visualizing, and assessing the environment and situation. Effective decision makers, however, are also flexible, quick, resilient, adaptive, risk-taking, and accurate. These skill sets require higher-order training in critical thinking, and we must inculcate them into our training. The first core skill set is understanding—it is vital to decision making. Understanding needs to be measured and is related to the small-unit leader's education, intellect, experience, perception, and the information he receives. To assist in understanding and enable decision makers to adapt in stride, the Army is exploring new training patterns like those developed by the Asymmetric Warfare Group and Army Research Institute. Intelligence, reconnaissance, and security are indispensable to understanding and can be supplemented by actively listening to and observing the population, leveraging technology, and listening to subordinates. Relevant information, augmented by training and the network, can enhance understanding and foster initiative. 11 We must continue to raise the standard of understanding across several areas and recognize that new norms are essential in the 21st century. Digital literacy, expanded use of space, and the understanding of cultures and foreign languages will enhance our knowledge base.

The second core skill, visualizing, improves decision making. We must train leaders at the small-unit level to establish mental frameworks of possible scenarios to enable them to detect, understand, and interpret relevant cues, patterns, and anomalies in the environment. Operations are fluid, dynamic, and changing, and appropriate visualization is essential

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to deal with a changing and complex environment. Anticipating and visualizing the end state requires small-unit leaders to understand the operational environment and to assess it continually against their cognitive baseline in terms of mission, enemy, terrain and weather, troops available, time, and civil considerations.¹²

The third core skill, assessing, involves monitoring and studying the current situation. It encompasses the enemy's reactions, vulnerabilities, and the changing environment and evaluates the progress of the operation using measures of effectiveness and measures of performance. Assessing involves comparing the anticipated end state with actual events on the ground and adjusting one's situational awareness accordingly. In addition, the Army has developed the human dimension concept to provide a broad, holistic approach to assess the Soldier's cognitive, physical, and social aspects. This assessment, in fact, goes beyond decision making, and looks at comprehensive Soldier fitness before, during, and after deployments. Accessing relevant information and leveraging the human dimension can improve Soldier resilience, intuition, and decision making under stressful conditions.¹³

Foster innovation. The relationships between agility, adaptability, and small-unit effectiveness are also as old as warfare itself. Since the advent of the pike, the longbow, the stirrup, and gunpowder, warriors have been agile enough to adapt to newer methods of warfighting for basic survival. Unquestionably, this basic characteristic remains applicable

today. Innovation is best achieved when opportunity meets demand with immediate feedback. We need to deliver the right technologies to Soldiers who have to adapt while in contact with adaptive enemies. Some authors have recently argued that the Army needs to create a more adaptive culture by making small units the basic building block of Army operations. 14 We can improve agility and adaptability through training. We can encourage innovation by immersing Soldiers in challenging environments and exposing them to events that can accelerate their ability to learn under pressure. In addition, we can use the network to our advantage. Tactical Ground Reporting, coupled with mobile Internet devices and RITE, are good examples. By using them, we can begin to test a process of adaptability that leverages the network's new information technologies to enhance Soldier situational awareness, improve synchronization, and convey a leader's vision and intent as another means of bringing all elements of change together for small-unit effectiveness.

Superior execution. Small units use a basic set of procedures to execute assigned missions. Today, the preferred method is to use troop-leading procedures, a commonly understood process to successfully carry out assigned small-unit tasks in a time-compressed fashion. Troop-leading procedures give small-unit leaders a competent framework for planning, preparing, and executing operations, and they help with the development of plans and orders. While not rigid, troop-leading procedures follow eight practical steps: receive the mission, issue a warning order, make a tentative plan, initiate movement, conduct reconnaissance, complete the plan, issue the order, and supervise and refine. Leaders normally modify these steps to accommodate the specific mission at hand. The military decision making process is a parallel process used at battalion level and above. Interestingly, many of the steps undertaken in the military decision making process can be of value to smaller units. Future efforts to improve small-unit execution need to ensure the dissemination of the military decision making process to lower units or consider a modification of troop-leading procedures to incorporate insights derived from the decisionmaking process. For example, under the step of "make a tentative plan," small-units may consider developing and analyzing multiple courses of action before selecting the course of action. Outside the



U.S. Army Soldiers from 52d Signal Battalion, Patch Barracks, Vaihingen, Germany, practice small-unit tactics during a Warrior Training Exercise, near Baden Wurttemburg, Germany, 5 May 2009.

decision making process, and time permitting, they can conduct a "post-mortem" analysis session scrutinizing courses of action, on the assumption that they will fail, and then attempt to discover how failure occurred. This technique opens the thinking process to more readily identify potential weaknesses in the plan.

To deal with complex environments, the Army has recently developed "design" and is teaching and making this approach available to small units. ¹⁵ Rather than a top-down approach to "framing a problem," the new design approach provides an opportunity for subordinate leaders to help frame the problem for superiors. Emphasis should be placed on "co-creating of context." The approach should rely on top-down and bottom-up inputs from all levels, particularly from Soldiers' interaction with the population and their ability to leverage social networking.

The bottom line is that mission success hinges on enabling small-unit excellence in decision making and consistent superior execution. Can we improve our troop-leading procedures and the military decision making process? By using best practices and innovative training methods like Outcome Based Training and Education and cognitive-based training, we can develop hybrid sets of innovative training procedures that can lead to high performing and adaptive teams.

Thorough preparation and pre-combat inspections. How do we better leverage the new forms of electronic media for mission preparation? Today, small-unit preparations are much more advanced in form and substance. These activities include, but are not limited to, plan refinement, reconnaissance, coordination, pre-combat inspections, movement, and rehearsals. During plan refinement, leaders adjust the plan based on new information, enemy actions, unit dispositions, and results of reconnaissance. Additional overhead reconnaissance improves execution by monitoring threat activities up to the actual event. Rehearsals come in several forms and aim to improve small-unit performance during execution. Rehearsal techniques include full-dress rehearsal, reducedforce rehearsal, terrain-model rehearsal, sketch-map rehearsal, map rehearsal, network rehearsal, combined arms rehearsal, support rehearsal, and battledrill rehearsal.

With the advent of network connectivity, small units can now exploit new software programs to rehearse with joint, multinational, interagency, and intergovernmental partners. Today, computerized mission rehearsal imagery and maps allow units to virtually see their objectives and routes to objectives through embedded training. This includes ground-level color photos or video footage of the area of operations. Virtual training has also expanded to the online Army Training Network and the Joint Training Counter IED (improvised explosive device) Integration Center, where devices like the Apple iPod Touch, iPhone, and other devices allow Soldiers to download the latest vignette to hone skills such as collateral damage avoidance.

Through mobile Internet devices, any Soldier will be able to carry his or her lesson to the squad tent or to the dining facility, or use it for hip-pocket training. New immersive simulation environments can also enhance unit capabilities in stressful situations. Electronic video war games, such as Virtual Battle Space 2 (VBS2), provide realistic scenarios that stress leaders' reaction capabilities; VBS2-based video vignettes of actual operations enhance teaching. Even beyond this, immersive environments for the entire unit could lead to greater resilience and complex adaptive behaviors. The end result of incorporating more varied, authentic, demanding, and relevant mission rehearsals is a cognitively prepared, more effective, and adaptive combat unit.

The Army is shifting to immersive training. This is training that emphasizes Soldiers learning by teaching themselves as opposed to emphasizing the role of teachers in the learning process. It places Soldiers in a most realistic, relevant set of conditions while in a virtual or live battlespace. Should we do even more to improve rehearsals and immersive environments and leverage live, virtual, and constructive integrated training environments?

Thorough assessment of performance. U.S. Army small units frequently use the after action review to enhance the learning process. After action

reviews allow all Soldiers within a unit to discuss an actual event and help ensure that all participants discover for themselves what happened, comprehend why certain actions occurred, and discuss how they can improve performance. They provide a nonthreatening environment, encourage Soldiers and leaders to be more candid, and foster selfdiscovery in areas in which Soldiers and leaders need to improve. After action reviews provide the essential feedback to correct and improve training deficiencies. Successful small units habitually use after action reviews to provide a candid assessment of strengths, weaknesses, and areas for improvement. The best units are open to embracing change, have open discussions on how to improve, and support active learning in all ranks.

Over time, the technique of "red teaming" has proven to be highly effective at improving practices in higher headquarters. Similar techniques may prove beneficial at lower echelons with minimal force structure additions.

Executing full spectrum operations. Field Manual 3-0, Operations, exposes Army units to a different set of tasks in its newest edition. Many of these tasks are not the traditional forceon-force tasks that involve kinetic actions. Thus, high-performing small units must be capable of understanding, training for, and executing a diverse set of military tasks, even though the timelines for preparation are more compressed than in the past. Army forces traditionally used offensive and defensive operations to defeat the threat on land. They must now simultaneously execute stability or civil support operations along with offensive and defensive operations anywhere along the spectrum of conflict and in any operational environment. Stability operations tend to cover offensive and defensive operations in peace operations, peacetime military engagements, and limited interventions. These new norms raise the bar for Soldier basic tasks. These new tasks include foreign cultural and language awareness, digital literacy, use of space assets like

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Global Positioning Systems, and an understanding of enemy-site exploitation and forensics. Civil support tasks apply to operations within the United States and its territories. Today, operations require versatile, well-trained units and tough, adaptive leaders that can deal with complex environments.

Possess a dynamic process of change. Captain Timothy Lupfer, in his Leavenworth Paper, The Dynamics of Doctrine: The Changes in German Tactical Doctrine during the First World War, sheds light on a proven approach to improving small-unit performance. He examines the process of institutional change that led to remarkable tactical successes for German units on the Western Front. This approach was not rigidly sequential, but involved a dynamic process that required great intellectual capacity and firm character to drive the successful changes down to small units during a time of war. The ten-step process included perceiving the need for change, soliciting ideas from frontline units, and defining, disseminating, and enforcing the change, as well as modifying equipment and organizations and training, testing, evaluating, and refining the change. 17 Using these steps, General Eric von Ludendorff implemented rapid changes to his tactical units that led to two major breakthroughs. First, the use of the elastic defense in depth, developed by Ludendorff in 1916, halted Allied infantry offenses with a minimum number of German defense units. Second, the use of newly developed tactical doctrine led to a series of successful German offensive advances in 1918. As General Wilhelm Balck once noted, "Bullets quickly write new tactics." In both cases, the solutions were tested before fielding. During World War I, desperately needed change resulted in rapid developments to improve the effectiveness of small German units on the Western Front. Our Army has a similar process of change today. Can we learn from these early experiences?

Peer-to-peer integration and development. The emergent qualities of high-performing small units have a number of notable attributes—the synergistic capacity to work together; the ability to develop superior leaders (beyond the appointed leadership); the capacity to adapt; the flexibility to handle fast changing situations; and the resilience to maintain these characteristics in the face of adversity, including the death of team members. Recent work in the field of neurological sciences is making great



U.S. Soldiers from the 52d Signal Battalion practice small-unit tactics during a warrior training exercise at the Boeblingen Local Training Area in Germany, 5 May 2009.

strides in building resilience, stress tolerance, and leadership *in extremis*. Increased awareness of the importance for Soldiers to be physically, emotionally, socially, and spiritually fit highlights another dimension to the challenges of achieving small-unit excellence.

There is a shared cognition or common understanding that evolves in training together that is closely coupled with trust and interdependence. These attributes are forged and shaped through the development of teamwork and the emotional fulfillment of being a part of a team or a greater whole. The success of the team reflects back on individual success and a sense of belonging, accomplishment, and achievement. The bond created when team members train together and build unit cohesion is valuable, and something we may not replicate otherwise. Small units achieve greatness through this when competence breeds the confidence that cements cohesion. Distributed operations and decentralized command may force small units to excel while being isolated, but it also requires a special strength to avoid creating their own rules in the absence of higher headquarters supervision.

Decentralized operations will certainly lead to a greater reliance on the need to develop teamwork, cohesion, and trust.¹⁸

Today, the U.S. Army is increasing its emphasis and focus on improving small-unit effectiveness by connecting the Soldier to the network—in both the garrison and the operating environment. There are several ongoing approaches to achieve connectivity. One approach is the development of the Ground Soldier System. We are providing battle command and situational awareness capabilities to dismounted small-unit leaders by connecting them to the network in the operational environment to enable appropriate and timely tactical actions, focus organic fires, and facilitate requests for joint supporting fires while minimizing the potential for fratricide. This system provides the tools that give small-unit leaders the flexibility to handle rapidly changing situations and conduct distributed operations. Development of the Ground Soldier System should converge with other systems, such as handheld devices, Rifleman's Radio, and Joint Battle Command.

Our Army is also leveraging the development of simulations and tools that bring the battlefield to the Soldier in an immersive environment. We are continuing to experiment and capture lessons learned at Army Expeditionary Warrior Experiment and Army Evaluation Task Force, as well as other experimental and operational venues. We are also connecting through new efforts in the implementation of the Human Dimension Strategy and the Army Campaign Plan.

We are improving small-unit performance by improving individual Soldier performance. The Lighten the Load initiative is streamlining the basic equipment our Soldiers use and reducing its weight—from the over 100 pounds today to around 73 pounds by 2017. We are fielding new composite materials to reduce the weight of protective vests, improve helmet ballistic protection, and increase Soldier mobility. We are improving combat identification with dual-purpose flashlights that provide basic illumination and reflect a Soldier's identity in terms of friend or foe.

However, improvement is a continuous process. We still need to do much more work. In the area of live, virtual, and constructive environments, our goal should be to ensure that all Soldiers

have access to immersive training. In the area of handheld devices, we need to give every Soldier a personal digital assistant with sufficient power, applications, speed, and memory to handle current and projected requirements. Small-unit leaders are the centerpiece of current combat operations. The Army must develop flexible and adaptive leaders and provide appropriate network-connected tools to facilitate superior execution in decentralized operating environments. In the human dimension, we must improve morale and unit cohesiveness and provide the tools to understand the cognitive, physical, and social aspects of comprehensive Soldier fitness. We should give every small-unit leader and individual Soldier the capacity to access information regarding his or her comprehensive Soldier fitness.

Conclusion

Several common threads are apparent in the high performance of small units.

First, the use of information makes a significant difference in building units able to exploit advances in improved small-unit leadership, understanding, subordinate actions, and adaptability across the spectrum of operations.

Second, while the basics have not changed, we can leverage advances in human-dimension concepts and new decision making tools to create a significant leap in small-unit performance.

Third, a dynamic process of change is necessary to document notable advances and to share these techniques with the rest of the Army so that we can have a wide impact on the operational force.

Fourth, testing is necessary to get the right solutions to the right problems.

Small-unit excellence is possible. With a purposeful approach to change, the U.S. Army can develop dynamic solutions for the operational force and better prepare our small units to achieve excellence in the 21st Century. **MR**

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