



The Defense Entrepreneurs Forum

Developing a Culture of Innovation

Lt. Col. Curtis D. Taylor, U.S. Army, and
Maj. Nathan K. Finney, U.S. Army

The official White House portrait of Dwight D. Eisenhower.

(James Anthony Wills)

Lt. Col. Curtis D. Taylor is an armor officer assigned to the Advanced Strategic Leadership Studies Program, Fort Leavenworth, Kansas. He served as the commander of 3rd Battalion, 66th Armor Regiment in Paktika, Afghanistan and Grafenwoehr, Germany. He holds an MMAS. Previous assignments include tours in Iraq and Afghanistan.

Maj. Nathan K. Finney is an Army strategist and former armor officer currently serving in the National Capital Region. He was a founding board member of the Defense Entrepreneurs Forum. Maj. Finney holds two M.P.A. degrees from Harvard University and the University of Kansas, and a B.A. in anthropology from the University of Arizona. Previous assignments include tours in Iraq and Afghanistan.

When you combine a culture of discipline with an ethic of entrepreneurship, you get the magical alchemy of great performance.

—Jim Collins, *Good to Great: Why Some Companies Make the Leap ... and Others Don't*

On a chilly afternoon in October 1920, two young officers who shared a duplex at Fort Meade, Maryland gathered with their wives for a leisurely dinner that likely changed the course of American history. For years, these two officers held an

unpopular, almost heretical view—that tanks, used with only limited success in World War I, held the key to victory in any future ground war in Europe. Their names were Capt. Dwight Eisenhower and Maj. George Patton. Both officers had suffered criticism for their ideas. In Eisenhower's case, his 1920 article in *Infantry Journal* about armored forces won him a stern condemnation from the chief of infantry, who assured him that his unorthodox opinion guaranteed a career climax as the head coach of the Fort Meade intramural

football team.¹ Patton made a similar splash with a letter in *Cavalry Journal* advocating the creation of an independent Tanks Corps.² Historians would later cite these articles as “nothing less than a proposed tank doctrine for the next war ... what these two upstart tank officers were suggesting would alter the whole doctrine of land warfare.”³

Their invited guest that afternoon was a rising star in the Army at the time named Brig. Gen. Fox Connor. Connor had known Patton for years but had just met the young Capt. Eisenhower. After dinner the three officers and their wives went to the motor pool to give Brig. Gen. Connor a ride on a British Whippet tank. Connor was so impressed with Eisenhower and his thoughts on the future of armored warfare that he invited him, at Patton’s urging, to become his brigade executive officer. Decades later, President Eisenhower would cite Connor as his most important mentor during his long climb from lieutenant to commander in chief.

Patton and Eisenhower were, to use a modern phrase, *disruptive innovators*. They were applying innovative solutions and creative approaches to a novel problem faced by their military service (how to use tanks effectively).⁴ Their ideas, however, challenged and even threatened the established organizations and traditions of their respective branches. The history of military innovation reveals that this is not a new phenomenon. In fact, most revolutionary ideas emerge from junior-level practitioners—who are unlikely to be able to refine or implement their innovations within the straightjacket of the military bureaucracy. What these innovators need is—

- ◆ a means to connect with one another for the purpose of refining and incubating their ideas;
- ◆ a forum to discuss their ideas; and
- ◆ an understanding mentor who can help them navigate the bureaucratic hurdles necessary to overcome or manage the institutional resistance to innovation.

Soldiers from Company D, 2nd Battalion, 5th Cavalry Squadron, 1st Brigade Combat Team, 1st Cavalry Division conduct gunnery with tanks at Grafenwoehr Army base during the multi-national training exercise, Combined Resolve II, 10 June 2014. (Capt. John Farmer, 1st Brigade Combat Team, 1st Cavalry Division)



Our ability to innovate and adapt to changing circumstances is one of the great asymmetric advantages of the U.S. military. A good amount of the innovation within the services has come from loyal insiders, particularly from the junior ranks—people who see problems at the tactical level and can create and share innovative solutions. Internal innovators who successfully implement their ideas usually develop and refine them through informal networks, peripheral to the people they work with daily. These networks provide a fail-free zone and energetic supporters.

Nearly a century after Eisenhower and Patton challenged the dogmas of their day, we continue to observe a similar dynamic. Energetic young service men and women are coming out of more than a decade of conflict full of ideas and empowered with the autonomy they found on a complex battlefield. Many innovations that proved vital to our successes in Iraq and Afghanistan—from vehicle adaptations that protect soldiers against improvised explosive devices to software programs that track volumes of intelligence reports—were in fact developed by innovative junior officers and noncommissioned officers serving on the front lines. These were the battlefield innovators who gradually helped our Army adapt to a quickly changing situation on the ground.

As we draw down our forces engaged in major conflicts, leaders accustomed to having a large amount of autonomy and flexibility while deployed will find fewer opportunities to innovate. We must encourage and equip these energetic and idealistic people, or else we will struggle to keep them in our ranks. We must facilitate their creativity and take advantage of their innovation rather than lose them and their ideas. Instead of passively waiting for such innovators to develop their ideas, we must help them network with one another outside the bureaucratic system. We need to encourage the creation and use of mechanisms that help innovators connect and collaborate, find constructive criticism of their ideas, and develop feasible implementation strategies.

Creating a Culture of Innovation

A 1999 RAND analysis of military innovation, commissioned by the U.S. Army, used case studies for trying to understand how militaries improve battlefield effectiveness.⁵ The study concluded that military necessity alone is insufficient to produce successful innovations. The right social and environmental factors must

propel innovative solutions beyond the gravitational pull of the bureaucracies from which they emerge. If, according to Plato, necessity is the mother of invention, then an organizational culture that encourages innovation must become its father.⁶ Creating the right culture for innovation will be crucial in overcoming the challenges facing the Army as we move into a post-war posture of declining fiscal resources and increasing global and strategic uncertainty.

A culture of innovation can only emerge inside a bureaucracy if there is a viable marketplace for both idea creation and incubation, as well as a safe space for trial and error. Ideas need a place where they can germinate at the practitioner level and then undergo a rigorous peer-evaluation process in which they are refined and developed. In the business community, small business startup incubators such as Techstars, the Harvard Innovation Lab, and the d.school at the Stanford Institute of Design provide this function for new business ideas.⁷ They provide a rigorous yet flexible process for generating, refining, and culling good business ideas before they are presented to venture capitalists for investment and action.

The Department of Defense (DOD) has no process similar to these companies that help startups. While many senior leaders recognize that our best ideas often arise at the grassroots practitioner level, the reality is that very few innovators at this level possess the bureaucratic acumen and the practical experience to turn a good idea into a programmatic change within the nation's largest bureaucracy. What these innovators need is a mechanism—independent of the bureaucracy—that provides a safe place to refine and incubate these ideas as they emerge.

The Defense Entrepreneurs Forum

Just such a mechanism, the Defense Entrepreneurs Forum, was developed, funded, and executed entirely by junior officers across the services beginning in 2013.⁸ Conceived as a web-based forum that brought participants together in person annually to promote innovation within the DOD, the Defense Entrepreneurs Forum has grown into a movement of considerable diversity. Its members rank from sergeant to general officer. They come from every branch of military service, and include civilians from the defense industry.⁹ The Defense Entrepreneurs Forum hosted its first annual conference

on Columbus Day weekend, 2013, at the University of Chicago Booth School of Business. Over one hundred men and women of varying ranks and ages, and from all four services, gathered to discuss innovation and to propose creative solutions to challenges facing the DOD. The three-day conference included a series of keynote speeches by successful innovators from the DOD and the private sector. Inspiring stories from small business CEOs and Internet startups were followed by proposals for creative solutions to complex institutional problems such as suicide prevention and acquisition reform. On the final day, conference attendees received an opportunity to pitch innovative ideas to a panel of venture capitalists and a senior military officer. While the conference was a success, its real value was the creation of informal networks among a new generation of military entrepreneurs. These networks will continue to foster a culture of innovation across the DOD.

Why the Defense Entrepreneurs Forum Matters

The Defense Entrepreneurs Forum is built on a well-established foundation of military officers

taking advantage of informal ties to improve their militaries. Take for example the *Militrische Gesellschaft*, “a volunteer society to discuss military affairs” founded by Gerhard von Scharnhorst in the early 19th Century.¹⁰ He envisioned that such a society would provide intelligent and energetic professionals a means to further their knowledge in the art of war. Key components of the society were developing—

- ◆ written solutions to proposed problems;
- ◆ mechanisms for impartiality to prevent interference with or suppression of truthful, but problematic proposals; and
- ◆ a community that leveraged junior-level talent and senior-level experience.¹¹

The Defense Entrepreneurs Forum was not built as a copy of the *Militrische Gesellschaft* although some of its goals are similar. The creators of the Defense Entrepreneurs Forum also intended to construct a community that could support the development of promising young innovators. The purpose was to encourage them to remain engaged with their craft and dig deeper for personal and professional knowledge.



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Much of our time as military professionals is taken up with our jobs. Nonetheless, some of us seek ways to look beyond today's activities and toward understanding the true nature of war. We look for ways to develop ourselves so we can play our part in meeting the needs of our Nation. Mechanisms such as the *Militärische Gesellschaft* and the Defense Entrepreneurs Forum provide an outlet for such self-development. At the same time, they tie us closer to networks of people who can help us along the path of development, helping us improve our profession and ourselves.

Overcoming the Antibody Response to Innovation

In 1902, a young U.S. Naval officer serving in the Far East came across a British technique for providing continuously aimed naval gunfire onboard a rolling ship deck.¹² His name was Lt. William Sims. Before this, U.S. naval gunners would wait for the sea to readjust the elevation of the guns, and they would time the firing of the guns as well as they could. Recognizing the importance of a continuous-fire capability, Sims learned all he could about the British technique. He sent the findings back to the Navy leadership, ultimately providing 13 written reports as he gradually refined his technique. After his final report, the Bureau of Ordnance responded with a terse message saying that it had shown conclusively that his techniques were unworkable. Not to be deterred, Sims persisted, eventually sending a letter to President Theodore Roosevelt. Fortunately for Lt. Sims, Roosevelt was a naval enthusiast and was actively seeking ways to promote U.S. sea power abroad. Saving the impetuous Lt. Sims from almost certain court martial at the hands of the Navy, President Roosevelt demanded an objective test of the Navy's long-range gunnery skills. In short order the test revealed the necessity of adopting Lt. Sims' technique, and the young officer was appointed the "inspector of target practice" for the Naval Gunnery School. Through a shrewd use of competition during training, over several years Lt. Sims instituted the practice of "continuous aim firing" throughout the U.S. Navy—which no doubt had a tremendous influence on its ability to confront the German Navy in the North Atlantic at the start of World War I.

Lieutenants corresponding directly with their commander in chief about service-related problems

certainly would not represent a desirable method of institutional reform. Nonetheless, the example of Lt. Sims demonstrates that our best ideas often are found at the lowest echelons of the organization, where junior professionals see the consequences of inefficiency on a daily basis. The bureaucracy, despite the best intentions of well-meaning people, often will react to these disruptive innovations with a sort of "antibody response" because the innovations naturally threaten the specialization and efficiencies that make that bureaucracy stable and successful. The solution then is not letters to the President but peripheral networks such as the Defense Entrepreneurs Forum where ideas can be developed, refined, critiqued—and sometimes discarded—until the very best thinking emerges in a competitive marketplace of ideas. Sufficiently incubated, proposals arising in this way can then inform programmatic decisions within the institution.

Unlike Silicon Valley, where the marketplace would provide developmental support for innovative startups, no similar support exists for military innovation. To continue to thrive in a complex world, the military needs to retain dedicated professionals who can promote change from within the organization. The Defense Entrepreneurs Forum seeks to be one of many forums committed to this effort. Created, funded, and run completely by junior officers outside their official duties, this organization aims to support its members' desires to innovate within their areas of expertise, not to network for access to government contracts or advocate for parochial interests within the DOD budget. For example, some of the solutions from the weekend in Chicago included the development of a suicide prevention application, a social media assessment tool for professional military education, and an innovative approach to certifying military nurses in patient care. While not all of these ideas may be implemented as successfully as Sims' gunnery revolution, the mechanisms and relationships created will continue supporting ideas that have the best potential.

The Defense Entrepreneurs Forum is not a place where military personnel can complain and bemoan the issues of the day. Instead, this forum facilitates relationships and provides opportunities for discussion—which loyal insiders need to develop their ideas and make valuable connections for implementation. The Defense Entrepreneurs Forum is, essentially, an

incubator to insource innovation. It supports service members working to provide viable solutions to real problems where they can and how they can. Additionally, prospective entrepreneurs can draw on the wisdom and experience of more seasoned innovators who can help them develop practical approaches to implementing their ideas within the context of a skeptical bureaucracy.

Conclusion

The bureaucratic nature of our military is useful to provide for our common defense and has been sufficient so for over 200 years. Unfortunately, this bureaucracy can severely restrict innovation. Like many peripheral networks of the past, the Defense Entrepreneurs Forum

has sought to provide its participants an environment free from bureaucratic burdens and blind spots. This kind of environment should be replicated in other avenues to support the creation of a culture of innovation, one in which ideas complement the existing institutional bureaucracy. Within its loose confines, the Defense Entrepreneurs Forum provides a hub for innovation where self-identified entrepreneurs can support one another through informal, peripheral networks. The Defense Entrepreneurs Forum is autonomous and free from parochial interest. It provides an adaptive, no-cost, fail-for-free environment where ideas can be discussed, experiments can be designed and tested, and ventures can be discarded if appropriate, so entrepreneurs can push workable solutions to the DOD. ■

Notes

1. Edward Cox, *Grey Eminence: Fox Connor and the Art of Mentorship* (AUSA Institute of Land Warfare, 2010), 11-12.

2. George S. Patton, "Comments on the Cavalry Tanks", *Cavalry Journal*, July 1921.

3. Carlo D-Este, *Eisenhower: A Soldier's Life* (New York: Henry Holt and Company, LLC, 2002), 151-152.

4. Clayton M. Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Boston, MA: Harvard Business School, 1997).

5. RAND documented briefing, prepared for the U.S. Army, *Predicting Military Innovation*, by Jeffrey A. Isaacson, Christopher Layne, and John Arquilla (Washington, DC: RAND Arroyo Center, 1999), http://www.rand.org/pubs/documented_briefings/DB242.html.

6. This aphorism comes from the quote, "a true creator is necessity, which is the mother of our invention," Plato, *The Republic*, Robin Waterfield, translator, (Oxford: Oxford University Press, 1998), 59.

7. Information for these organizations is available at <http://www.techstars.com>, <http://i-lab.harvard.edu>, and <http://dschool.stanford.edu>.

8. Nathan K. Finney, Jeff Gilmore, Benjamin Kohlmann, and Lindsay Rodman, "Fostering Military Entrepreneurs," *Armed Forces Journal*, August 2013, <http://www.armedforcesjournal.com/fostering-military-entrepreneurs/>.

9. Visit the Defense Entrepreneur Forum website at <http://defenseentrepreneurs.org>. We invite innovators to join us at the 2014 gathering of the Defense Entrepreneurs Forum, University of Chicago, 24-26 October 2014.

10. Charles E. White, *The Enlightened Soldier: Scharnhorst and the Militärische Gesellschaft in Berlin, 1801-1805* (Westport: Praeger, 1988), 30.

11. *Ibid*, 31, 49.

12. The authors are indebted to Lt. Cmdr. B.J. Armstrong for his support and personal work on William Sims and the gunnery revolution. More information on his work can be found at the U.S. Naval Institute, beginning here: <http://blog.usni.org/2012/06/08/a-junior-officer-and-a-discovery>.