

War and peace: Evolving challenges and strategies in the US military

Aerospace & Defense December 2017



Tucker Bailey
Heather Ichord
Navjot Singh

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Five experts describe the technological, environmental, and other disruptions that are changing the way the US armed forces manage conflicts and pursue peace initiatives.

Particularly since the end of the Cold War, US armed forces have addressed a wide range of security concerns, some of which fall into noncombat categories—for instance, helping to manage the emerging effects of the Ebola virus in Liberia, or assisting in rescue and recovery efforts after hurricanes in the Caribbean and Puerto Rico.

How has the US military adapted to this diversification in assignments, while still preparing for and conducting traditional combat operations? What critical strategic and technological questions do the US Department of Defense and other government agencies and leaders need to address? How can they introduce new ways of working within existing infrastructures?

This summer, a group of experts on military and strategic issues shared their perspectives on the factors that are reshaping the global security environment, as part of McKinsey's Imagine Get-Together event—a recurring forum led by McKinsey's Navjot Singh. For this edition of the forum, Singh was assisted by McKinsey experts Tucker Bailey and Heather Ichord. The speakers included several longtime leaders in the US Navy, a professor of conflict-resolution studies who has worked with US government agencies as well as international and local NGOs, and the leader of a government organization that aims to bring innovative technologies to the military quickly.

The presenters explored the following:

- the continued complexities of the hard and soft tasks the US military is now being charged with,

and how to find the balance between both in a resource- and time-constrained environment

- conditions for peace and the importance of negotiation skills among today's military leaders on the ground
- the navy of the future and what it might look like
- technological changes in today's military
- the opportunities emerging from industry–military partnerships

Make no mistake, the speakers concluded, the next-generation military is already here: IoT devices, sensors, and other connectivity tools are affecting the way military strategies are developed, communicated, and, in some cases, even executed. Diplomatic considerations are increasingly present at a tactical level on the battlefield. And the US government is revisiting how it funds and pursues innovation, exploring new models and metrics.¹

Admiral Eric Olson, US Navy (retired), former commander, US Special Operations Command at MacDill Air Force Base:

During my last year in command, I was struck by an image that many of you have seen: the composite satellite imagery of the world taken at night. It shows where the lights are on and where they are off. Certainly, up until the 9/11 terror attacks, our intuitive military thinking was that the most strategically important places on Earth must be where the lights are on at night—along a relatively narrow band of the mid-Northern

Hemisphere. That's where people live, societies develop, goods are produced, and money traverses networks. Then on 9/11, we were struck from a dark place; we were woefully unprepared to deal with and against people who live where the lights aren't on at night.

Let's consider what's changed. You have new types of nontraditional factors emerging on Earth that are influencing how people and nations behave— independently and with each other. I'm talking about things that you don't normally associate directly with the military—for instance, rapid population growth, migration and demographic shifts, and the refugee crisis. I'm talking about things like climate change and its effect on how people live and earn their money, about pandemic diseases and transnational crime. Think about the global competition for water and precious minerals. Or think about booming economies in different parts of the world—several hundred million Chinese moving into the middle class, with a huge surge in buying power over the next 10 or 20 years. And then, of course, there is still terrorism in all of its forms—physical and now cyberattacks that affect our personal lives and security.

All of these factors have significant national-security implications. Think about climate change. I spent one of my last hours in uniform with the minister of defense of Norway, who used the entire hour to describe the challenges Norway faces in keeping open sea lanes that, within a decade or two, will be a primary trade route between Europe and the Asian markets. If you pay attention to the news, the effects of immigration and the refugee crisis are fairly obvious; they are affecting security in Europe.

So what is the role of the US military in addressing this whole new realm of nontraditional security matters? It is significant, and not a lot of people may be aware of that. Who would have thought that an earthquake in Nepal would require a US military response? It did. A tsunami in Japan?

It did. The 276 kidnapped Nigerian schoolgirls? We were there. The Ebola virus? The US military played an important role in resolving issues before the disease scaled up to the hundreds of thousands of cases that global healthcare agencies had estimated would occur. The military typically has more mass, money, and specialized talent than other elements of government. It is expeditionary by nature—accustomed to taking on projects abroad; and it is the only organization at the national power level that can actually issue orders that compel someone to do something that they otherwise don't want to do.

In this new normal, the US military must continue to do the big things well. But it must also learn how to do all the little things: develop expertise on regional cultures, build linguistic knowledge, or find new problem-solving approaches. We need to support our soldiers with traditional platforms and skills, using the traditional approach—“manning the equipment.” But we also need to focus more on people, knowledge, education, and context—“equipping the man or woman.” We have a responsibility to get the balance right.

Eileen Babbitt, director of the Institute for Human Security, Tufts University, Fletcher School of Law and Diplomacy:

The necessary conditions for peace are a set of security concerns that go beyond just defense. The term of art we've adopted is 3-D security: diplomacy, development, and defense. A strong, well-trained, well-equipped military is absolutely essential as a deterrent to violence and as a means to address threat. But by itself it is not sufficient for security in our world at this moment in time. That's why we need development efforts to address the anger and resentment that can breed when there is poverty and when people feel marginalized. Such efforts can bring governments and citizens together to engage productively and constructively in the world; they no longer feel like they need to lash out in a destructive manner. This

is critical for human security—particularly now when we’re seeing a rise in the use of terrorism by individuals and groups who feel left behind. Marginalization exists, and we need to take care of it.

But it’s not politically tenable, or economically feasible, for the US to do this alone. Our military leaders need help from global and regional allies and partners. To some degree, relationships can be established through formal treaties and agreements. But there needs to be another set of discussions, informal ones, grounded in the day-to-day, humanitarian issues we all care about across the globe. This is diplomacy. We have to be able to engage with both allies and adversaries, and we have to know how to negotiate.

In particular, we need to do a better job of using diplomacy upstream to prevent things from escalating, so that military intervention is not necessary as a first order of business. Military commanders themselves are exploring ways to integrate diplomacy into their engagements with both allies and adversaries, even on the ground. A doctoral student at Fletcher is writing an interesting dissertation about the military command in Helmand province [Afghanistan] before, during, and after the 2009 surge. He is studying how commanders have used negotiation in their missions. He found that at the battalion level, the commanders were able to recognize when the mandate they were given was a little bit off, in terms of what was needed on the ground, and they made decisions about what they could accomplish through negotiation rather than coercion, and they negotiated. The commanders had a more difficult time passing that insight along to the enlisted men and women, however. How can we get young soldiers to shift from being warriors to being negotiators? This is a huge challenge.

Bill Glenney, founding director, Institute for Future Warfare Studies, US Naval War College:

Just as it has been for the past century, the power and identity of the US Navy is centered on small numbers of big, impressive, heavily manned warships—the traditional “capital ship.”² In the early 1900s, it was the battleship. In the 1940s, it became the aircraft carrier, which remains the primary fighting component of the US Navy today. There are other important warships that make up the naval battle force—cruisers, destroyers, submarines, and the like—but the aircraft carrier is still the capital ship par excellence.

The Department of Defense and other military leaders are exploring a navy of the future, however, where the capital ship may be something very different. This navy might feature hundreds or thousands of autonomous unmanned systems that carry combat power against an adversary. It might comprise a network of tiered weapons and sensors—a network that stares, listens, and watches 24/7, detecting anything in the battle space that moves or transmits energy. If something can be seen or sensed, it can be targeted and attacked.

Think about a navy that exploits artificial intelligence, big data, and sophisticated machine learning to gain advantage over potential adversaries. This navy would be built around human–machine teams, where each enhances the performance of the other. Machines would handle time-critical tactical matters, and humans would cope with the strategic challenges and extreme uncertainties in battle. This navy would also be functionally distributed; when a mission demands capabilities such as antipiracy or ballistic-missile defense, that is what you get, not a collection of capabilities you don’t need. This navy would be agile and responsive, because connectivity and modularity would be designed into systems and operations.

To get to this navy of the future, the Department of Defense and other military leaders will need to challenge some deeply ingrained assumptions. For

decades, Americans have assumed technological superiority over much of the world, and the navy has had technological superiority over adversaries. But how true is that assumption today, with the proliferation of technology globally? How does the navy fight against a technologically superior force, should one emerge? The Department of Defense has assumed that it has, and would continue to have, what we call dominant battlespace knowledge; we would know everything. But, again, can we continue to hold this assumption?

We also need to look at our approaches to training: Are they still adequate given all these external factors we've been talking about? How do we educate officers and sailors differently? And how do we train the machines that make up the "machine" part of the human-machine team? These are complicated questions, and we don't have complete answers to them yet—but a lot of people are working very hard to find them.

Rear Admiral Nevin Carr, US Navy (retired), former chief of naval research; vice president and US Navy strategic account executive, Leidos:

R&D will continue to matter a lot in our search to control the elements of war and peace in our society. If you look at the data, you see that in the 1960s, the government was funding three out of every four research dollars in this country. It was the equivalent of handing a bag of money to industry and saying, "I'd like to go to the moon." It was much more complicated than that, of course, but industrial partners would line up all their talent and resources, and they would get you to the moon and back, safely. By contrast, today, three out of every four research dollars come from you and me, from industry, and from the market. The Department of Defense is no longer driving technology; it's not even a major passenger on the train. We're transitioning out of a period of very explicit military possession of technology, dating back to our earliest origins, when defense drove technology development, with items like castles

and crossbows and siege engines. It's harder now to control technology. People have the ability to inflict harm on others at a scale that was unimaginable even 50 years ago. This raises some tough questions for how we prevent or control conflicts in the future.

We have to design systems with this change in mind. We've handed a lot of the R&D work to industry, but we have to collaborate with these partners to design open, modular platforms and systems. We need specs that can be modified easily as military and security needs change. The aircraft carrier is the ultimate open platform, if you think about it: if you want to change the combat system on that platform, you fly the old aircraft off the front end and you land a new one on the back end. We have to be that open, across the board. We can't just adopt new technologies lightly, however. We have a huge responsibility to make sure new tools and approaches work, and that they can be integrated and that they are additive.

Raj Shah, managing partner, DIUx (Defense Innovation Unit Experimental):

It's critical to bridge the gap between civilians and the military, for reasons that some of the other speakers have suggested. I tend to view the dynamics of this relationship using two lenses: technology and human capital. Let me start with a story on the technology side. Special-operations teams are some of the bravest folks we have in the service. They are the ones rushing through the front door to find and capture bad guys and terrorists. The first soldier in faces a lot of risk—often gets shot, often fatally. We were asked to think about that problem and come up with a potential solution. The traditional approach would be, "let's build an 'Iron Man' suit," something indestructible that could protect anyone in any situation. Of course, coming up with such a suit would be difficult—time consuming, expensive, and, in some cases, not actually possible under the laws of physics.

We instead reached out to the commercial industry to see if there were technologies there that we could apply to this problem. We found that several start-ups had been funded to build drones to map the inside of buildings for the real-estate industry. A builder may want to know, for example, how is my construction doing relative to the architectural plans? Instead of sending someone to the site with a checklist, the builder could send a drone to fly around and capture that information in a relatively low-cost way.

We connected one of these start-ups with Special Operations forces to design a drone that would go in the door first and map everything out for the special-operations team. The team would know exactly what and who was in the building. We took commercial technology and approaches and used them to solve a pretty difficult defense problem. And we did it quickly: the drone is currently flying at test facilities and will be downrange in the next month or two—only about a year after our discussions on this project first started.

The human capital involved here is just as important as the technology component of this relationship. In 1980, some 60 percent of CEOs were veterans. Today, it's between 8 and 10 percent, depending on which sources you use, and trending downward. Why is this important? In many US communities, there are not a lot of people who have served, or know people who have served, in

the military. People who are going to be leaders in industry likely don't have an appreciation for national security in a very visceral way. We need to bridge this gap. We need to facilitate industry's relationship with the US military, and vice versa.

If you think back to all our major conflicts, it's our industrial base that has saved us. In 1943, Boeing and GM were stamping out planes by the hour. What's the corollary in the future? Is it the development of low-cost drones? Is it the adoption of advanced analytics that allow for faster decision making? If we don't promote relationships between the military and our industrial base today, we won't have these kinds of capabilities to rely on. ■

¹ The views expressed here are those of the individual speakers and not of their home organizations or McKinsey & Company.

² The capital ship is defined in *Merriam-Webster's Unabridged Dictionary* as "a warship of the first rank in size and armament: a major surface ship (as a battleship, cruiser, aircraft carrier)"; retrieved November 2017 from unabridged.merriam-webster.com.

Tucker Bailey is a partner in McKinsey's Washington, DC, office; **Heather Ichord** is a consultant in the Boston office, where **Navjot Singh** is a senior partner.

The authors wish to thank Marla Capozzi, Roberta Fusaro, Stephanie Ross, and Lynn Wolff for their contributions to this article.

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Contact for distribution: Navjot Singh
Phone: +1 617 753 2146
Email: Navjot_Singh@McKinsey.com

December 2017
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