



Rebuilding The Military For Tomorrow, Not Today

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With the 2016 election ushering Donald Trump into the White House and the GOP into control over both Congressional chambers, the national security conversation has shifted toward greater spending, more ships, more planes, and more troops. The Trump team's proposed buildup borrows heavily from the Heritage Foundation's Index of U.S. Military Power—which rated America's armed forces as “marginal.” In line with Heritage's recommendations, Trump has promised to rebuild the U.S. Navy, aiming for 350 ships. But in crafting a military for the type of twenty-first century threats the United States faces, composition may matter as much as size. Doubling down on strategies and tools from the past will not make the United States more secure.

Take the 350-ship navy, for example. The U.S. Chief of Navy Operations has argued that the best way for this to be done is to rely on old designs and not all-new warships. This makes sense on the surface, given the delays and cost-overruns on new ships like the Ford-class carrier and the Littoral Combat Ship. But the lessons from these programs is not that new technology or designs will inherently cause problems. Both programs relied on untested technology. Returning to old designs, however, presents its own problems. Can these weapons systems keep up with the fast-paced technological innovation that could be used against them?

In early 2017, the Department of Defense (DOD) successfully demonstrated the ability to swarm a target with microdrones. Two F-18s deployed 104 small drones that then converged on a designated area. The drones themselves were 3D-printed. Combined with reports that ISIS fighters in Mosul are using small drones to bomb Iraqi security forces, this newly demonstrated capability suggests a need for discomfiting changes in combat tactics. Are the ships of the past designed for the possibility of being swarmed by explosive micro-drones as they pass through straits or by hostile coasts? While perhaps some new defensive systems, such as directed-energy weapons, can be shoehorned in, it may be that ships of the future will have to be able to take small explosive hits in case they cannot destroy entire swarms. That resilience may require new hull designs.

The problems that new technologies pose for high-cost exquisite systems have been explored in depth by Dr. Thomas X. Hammes at the Institute for National Strategic Studies. In a paper he wrote for the Cato Institute, Dr. Hammes argued that the convergence of technologies like 3D

printing, unmanned drones, and algorithms could dominate combat in the future. As he argues, “exceptionally capable and complex” systems, backed by massive investment, may simply be swamped by large number of cheap, but smart, systems. The DOD has been aware of these growing technological threats. However, as my colleague Matthew Fay has pointed out, adapting to this reality will require organizational changes within the military. To develop its own technological innovations without the current model of spending, the DOD will need competing sources of conceptual innovation. To get there, however, the DOD would have to reverse decades of centralized planning.

Of course, exploding micro-drone swarms is at the moment theoretical. But there are other threat environments that the U.S. Navy already confronts. China’s anti-access, area-denial buildup in the South China Sea, for example, uses more conventional missiles to deter unwanted U.S. action in the area. The question then arises: if the United States needs have a presence in the region, how willing would it be to risk its forces? In terms of aircraft carriers and destroyers, the United States has recently produced on large, expensive designs in small numbers. The United States may not be eager to risk its exquisite and highly expensive systems for anything less than an existential threat. Building more of the same won’t necessarily change that risk calculus. To maintain presence in such a contested zone, the United States may have to shift towards autonomous—and thus expendable—surface ships.

Changes in warfighting don’t just affect the Navy. Before the election, Trump’s team had said that it wants to return the Army to 50 active-duty brigade combat teams and the Marines to 36 active-duty infantry battalions. But the Marines in particular have been concerned with fighting in the information age, and not necessarily on number of battalions.

If forced to pick, Marine Commandant Neller would rather have electromagnetic fighters, computer experts, and intelligence analysts than more fighters. This makes sense in the context of recent conflicts. In Ukraine, Russia used the electromagnetic spectrum and drones to pinpoint Ukrainian soldiers and use artillery to attack them. Without developing the needed expertise and tools to fight in modern war, increasing the size of the army by itself may simply put more Americans in danger. Army Chief of Staff Milley has argued the Army will also have to change how it’s structured for future combat. According to Milley, ground forces will have to be distributed in smaller—and constantly moving—units.

This type of warfare will likely require changes in training, and in how soldiers interact with each other. Conrad Crane, in an essay for *War on the Rocks*, outlines how distributed ground warfare could change how the military views unit cohesion. Soldiers of the future may need greater cognitive capability, due to the level of information they may receive, but different physical requirements. In the past, military camaraderie has helped keep soldiers strong against overwhelming odds. If soldiers wind up fighting dispersed, and among thousands of civilians, sensors, and drones, the vision of that camaraderie will likely change. In that future, new training and socialization structures may prove more crucial than higher numbers of combat troops. In fact, higher numbers may make it fiscally impossible to properly train every soldier for the battlefield of the future.

This is not to say that larger forces would not help the military fulfill its given missions, but that numbers alone will not reduce some of the largest threats it faces. If the Trump Administration and the Republican Congress really want to rebuild the military for the twenty-first century, they

should take the time to take stock of what challenges the United States will face tomorrow, not just the ones it faces today.