

## Military Learning and the Future of War

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The US National Defense Strategy of 2018 was an inflection point. The United States reoriented its defense enterprise on great power competition and the conventional challenges that Russia and China pose. US is steering away from the focus on counter-terrorism operations that have preoccupied the US for the past 19 years. The impetus for this reorientation stems from a combination of factors:

- A desire to turn away from unpopular unconventional conflicts that seem to drag on interminably;
- The very real strides China in particular has made (and Russia has claimed to have made) toward fielding conventional military forces that could challenge or even defeat those of the US in some scenarios;
- The aging and wearing-out of major American weapons systems based mostly on technologies of the 1970s and 1980s; and
- The advent of a new generation of advanced weapons systems including hypersonic missiles, drones, and other unmanned systems, augmented by artificial intelligence, machine learning, and other information technologies.

These concerns have concentrated the minds of America's national security leaders in a good way—change is needed. But they have also tended to focus the national security debate on a particular set of challenges related primarily to high-end conventional maneuver war.

That focus is excessive. The US must certainly prepare far better for such conflicts than it is currently on track to do, but it must also recognize that almost any future war will incorporate many features observed in the post-9/II wars as well as in the hybrid war and gray zone approaches that Russia and China have been pioneering.

It errs as well in framing the Chinese and Russian threats as more similar than they are, lumping both into the category of "great power competition" with a focus on conventional military capability. The Russian and Chinese approaches to war and preparation for it, however, diverge in important ways. Preparing for one does not automatically ensure adequate preparation for the other.

The US is in a learning race as much as a technology race. Russia and China are aggressively working to understand current conflicts, develop coherent theories about possible future conflicts, test those theories in their own and others' conflicts, and then refine them and repeat the cycle.

The US is falling behind in this intellectual race perhaps even more than in the technological race. Military thinkers envisioning future conflict typically imagine returning to the large-scale wars of the past with new technologies.<sup>2</sup> They struggle to imagine new modes of warfare and the systems, organizations, and doctrine to use them well – particularly before the full revolutionary capabilities of new technology have come to fruition in ways that permit large-scale experimentation.<sup>3</sup> They remain excessively focused on the challenges of high-end conventional conflict

<sup>&</sup>lt;sup>1</sup> "Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge," January 2018, <a href="https://dod.defense.gov/Portals/I/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf">https://dod.defense.gov/Portals/I/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf</a>.

<sup>&</sup>lt;sup>2</sup> For this criticism of current thought, Sean McFate, The New Rules of War: Victory in the Age of Durable Disorder (New York: William Morrow, 2019).

<sup>&</sup>lt;sup>3</sup> The robust literature on military lessons learned exceeds what the authors can place in a proposal footnote. Two seminal studies in are Allan R. Millett and Williamson Murray, edd., Military Effectiveness, 3 vols., (Cambridge University Press, 1988), Stephen P. Rosen, Winning the Next War: Innovation and the Modern Military (Ithaca: Cornell University Press, 1992); for historical cases of this specific phenomenon: Dennis Showalter, Railroads and Rifles: Soldiers, Technology, and the Unification of Germany (Archon Books, 1975); J.F.C. Fuller, "Plan 1919," in Memoirs of an Unconventional Soldier, 1938, in which he imagines fighting one-sided, uncontested armored warfare using tanks as if they are at sea rather than on terrain.

without taking adequate account of the transformation, particularly in Russian military thinking around the concept of hybrid war, in which military operations are subordinated to informational objectives.

Experimentation can occur before technologies are fielded and major wars erupt. Historically, interwar periods are rarely periods of peace, but rather periods of smaller conflicts. Small wars are catalysts for change that drive the best innovators and executors to imagine and prepare for future conflict.<sup>4</sup> The 1973 War partly inspired the development of US Air-Land Battle Doctrine.<sup>5</sup> Peacetime sometimes produces new, challenging, and innovative modes of warfare; even states that lack the resources for widescale modernization can use interwar periods to experiment and learn.<sup>6</sup>

Our adversaries, and particularly Russia (and Iran), are now aggressively experimenting with new concepts and techniques in small wars, overseas engagements, and domestic crises. The Russians are conducting extensive lessons-learned activities based on their experiences fighting in Syria and Ukraine and are constantly updating their theory, doctrine, organization, and practice based on those lessons. The Chinese are learning lessons from their historical and current pandemic and disaster relief operations, their special operations, wargaming, and observing other actors such as Russia overseas.

American military thinkers are suffering from these problems less than has been historically common. They are alive to the threats of weapons systems still in their infancy such as hypersonics and autonomous systems. They are also thinking deeply about potential cyber attack scenarios far beyond anything the world has yet seen. Part of the driving force behind the urgency of the 2018 National Defense Strategy, which the Congressionally-mandated commission to review the NDS itself found not urgent enough, is precisely the concern that recent American defense budgets have not allocated sufficient resources to meet these coming challenges.

But the American discourse is falling into its traditional historical pattern in one sense. The desire to turn away from "endless wars" and focus on fighting the kinds of wars Americans think they prefer seriously undermines efforts to learn lessons from the last two decades of conflict or even from ongoing small-scale conflicts in which the US may or may not be participating. Americans are thus more inclined to theorize about how war might evolve given changes in technology than to observe how it is evolving. The US is also focusing on a future operating environment shaped more by technology than geopolitics. The US is therefore at risk of losing the military learning race and finding at the start of the next major conflict that, despite having imagined some important developments in conventional war, it is still intellectually, doctrinally, and organizationally unprepared for the war it is in.

The Institute for the Study of War is therefore launching a series of papers that explores the ways the United States, its competitors including Russia and China, and other potential adversaries are learning from ongoing geopolitical competition and military engagements. The series explores the ways these evolutions in the operating environment provide opportunities for experimentation and testing of new technologies, capabilities, and approaches to war. The papers explore organizational adaptations to incorporate new capabilities, doctrinal changes to harness them, and the ability to institutionalize these changes in ways that will shape the future of war.

You can find this series here on ISW's website.

<sup>&</sup>lt;sup>4</sup> Max Boot, Savage Wars of Peace and War Made New; David Kilcullen, The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One (Oxford: 2009).

<sup>&</sup>lt;sup>5</sup> John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine 1973–1982, TRADOC Army Historical Series, 1984); for a prescient case study that illuminates how Hezbollah and Iranian proxies learned lessons that they now are applying to fight the ongoing wars in Syria, Stephen Biddle and Jeff Friedman, The 2006 Lebanon Campaign and the Future of Warfare: Implications for Army and Defense Policy, Strategic Studies Institute: 2008, available at <a href="https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=882">https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=882</a>.

<sup>&</sup>lt;sup>6</sup> Stephen P. Rosen, Winning the Next War: Innovation and the Modern Military (Ithaca: Cornell University Press, 1992); Mary R. Habeck, Storm of Steel: The Development of Armor Doctrine in Germany and the Soviet Union, 1919–1939 (Ithaca: Cornell University Press, Reprint 2014).