

U.S.-China Relations in 2019: A Year in Review

Testimony before the

U.S.-China Economic and Security Review Commission

Dr. Andrew F. Krepinevich, Jr.

September 4, 2019

Thank you, Vice Chairman Cleveland and Commissioner Fiedler for the opportunity to offer my views on the topic of “U.S.-China Relations in 2019.” I will focus my remarks on the relationship’s military aspects.

Key Trends in U.S.-China Military Competition and Their Implications

The character of the Sino-American military competition is dynamic and open-ended. This is very unlikely to change over the foreseeable future. There are several principal reasons for this.

First, the competition is open-ended in that the two powers have conflicting fundamental interests and objectives that neither are willing to abandon. They also have the means to pursue these interests over an extended period of time. Thus the military competition will likely be protracted, with all that this implies for crafting an effective defense strategy.

Second, we are witnessing the maturation of the precision-strike regime, which was introduced in its earliest form by the United States military in the First Gulf War. After nearly 30 years of dominating this form of warfare, characterized by battle networks and precision-strike systems—what Russian military theorists call a “reconnaissance-strike complex”—these capabilities are being fielded by other militaries, with the People’s Liberation Army (PLA) constituting the leading, or pacing, threat. This trend is highly unfavorable to the U.S. armed forces, as it represents the loss of several key advantages in the overall military competition. In particular, the PLA is deploying anti-access/area-denial (A2/AD) capabilities designed to shift the military balance in the Western Pacific increasingly in China’s favor.¹

A third, related trend finds the military competition moving increasingly into relatively new domains, to include space, cyberspace and the seabed. The competition in these three domains is “offense-dominant,” which may have important implications for deterrence, and for military operations should deterrence fail. The American military appears to have an advantage in these domains, but the Chinese are working to close the gap.

Consistent with their strategic culture, the Chinese continue seeking opportunities to gain positional advantage. In particular, Beijing’s positioning military assets on South China Sea islands places them astride one of the world’s busiest trade routes, while also denying the Philippines and Vietnam strategic depth.

¹ Andrew F. Krepinevich, Jr., *Archipelagic Defense* (Tokyo, Japan: Sasakawa Peace Foundation, 2017), pp. 29-43.

Finally, there is growing likelihood that the next decade or so will witness one or more disruptive shifts in the military competition—a military revolution.² Among the new forms of warfare we may witness are:

Algorithmic Warfare: operations dominated by artificial intelligence (AI) systems (such as robotic systems employing machine learning);

Hyper War: operations conducted at unprecedented speeds, enabled by advanced cyber weaponry (such as malware developed and/or informed by AI); as well as directed energy and hypersonic weaponry; and/or

“Precision” Biological Warfare: operations that are enabled by advances in genetic engineering techniques, such as CRISPR-Cas9, and synthetic biology.

Most likely we will see a mix of these new capabilities employed in combination with current forces.

From a U.S. perspective, the prospect of downstream disruptive shifts in war’s character can be viewed in both a positive and a negative light. It’s positive in the sense that it offers the U.S. military an opportunity to create new sources of competitive advantage, even as its existing advantages in precision-strike warfare fade. It’s negative in that the PLA may prove more adept than its American rival at exploiting the potential of these emerging technologies and their associated capabilities. Indeed, the U.S. defense establishment has shown itself to be slow in developing new warfighting concepts for great power competition, and exceedingly slow at fielding new capabilities.³

The Indo-Pacific Military Balance

At present, the overall Indo-Pacific military balance appears favorable to the United States, its allies, and like-minded security partners.

It must be noted that a great many factors and assumptions are involved in determining the balance, in addition to the size and structure of a state’s armed forces.⁴ Consider, for example, geography. The military balance is likely to be more favorable to China in a clash with the United States over Taiwan than it would be in a contest over islands in the South China Sea, or for control of the Indian Ocean sea lines of communication, or in blockade/counter-blockade operations. Time is another major factor in calculating the balance, such as the time each side would have to mobilize forces prior to the onset of hostilities. Time also plays a role in terms of the balance of forces across the length of a conflict which, in the case of wars between great powers, is often protracted. This relates to how quickly a side’s ability and will to continue fighting may be exhausted. Then there is the form the fighting takes. As recent history shows, the U.S. military is far more effective in

² The literature on military revolutions, or “revolutions in military affairs,” is extensive. For an overview, see Andrew F. Krepinevich, Jr., “Cavalry to Computer: The Pattern of Military Revolutions,” *The National Interest*, Fall 1994, pp. 30-42.

³ Mac Thornberry and Andrew F. Krepinevich, Jr., “Preserving Primacy,” *Foreign Affairs*, September-October 2016, pp. 30-31.

⁴ For a discussion of the discipline of net assessment, which focuses on methodologies for calculating the military balance, see Andrew F. Krepinevich, Jr., and Barry D. Watts, *The Last Warrior* (New York: Basic Books, 2015), pp. 179-89.

waging conventional war against an adversary equipped and waging this form of war, than it is in conducting counterinsurgency operations.

Although the overall balance appears to favor the United States, for nearly two decades now it has shifted increasingly in China's favor across the four dimensions relating to military strategy.⁵ They are:

The Logistical Dimension: China's economic growth rate continues to surpass that of the United States and its principal allies in the region. The PLA's budget continues growing at a higher rate than the U.S. defense budget. Both China and the United States, however, show signs of structural and fiscal weakness that could exert great influence on their ability to support an open-ended military competition.⁶

The Technological Dimension: Much of the military-related technologies underlying the maturation of the precision-strike regime, as well as the prospects for a military revolution, are being developed in the public sector, and are generally available to those with the resources to acquire them (or skill to steal them, or the economic leverage to coerce access to them). China has made it a priority to establish world-class competence in many key technologies (AI, Biosciences, Hypersonics, Quantum Computing) that will likely exert a significant influence on the military competition. The U.S. weakness here stems primarily from a lack of national purpose in this area of the competition, and its lack of competence in time-based competition—the ability to translate rapidly emerging military-related technologies into fielded military systems.

The Operational Dimension: The PLA appears to know what it needs to do to conduct an offensive campaign in the Western Pacific, and is going about fielding a military capable of doing it. Toward this end it is working to field forces and conduct operations designed to establish air and sea control, along with the information dominance required to enable such a campaign.

The U.S. military, on the other hand, has yet to develop anything like the detailed operational concept for defending the nation's vital interests and security obligations in the Western Pacific that it had during the Cold War for Europe.⁷ While the latest U.S. National Defense Strategy directs the military services to work on developing innovative operational concepts, progress to date has been astonishingly slow.⁸ Such operational concepts that

⁵ The four dimensions of strategy are discussed in Michael Howard, "The Forgotten Dimensions of Strategy," *Foreign Affairs*, Summer 1979, pp. 975-86.

⁶ Andrew F. Krepinevich, Jr., *Preserving the Balance* (Washington, DC: CSBA, 2017), pp. 38-43.

⁷ For an example of a detailed point-of-departure operational concept for the Western Pacific Theater of Operations, see Krepinevich, *Archipelagic Defense*, pp. 62-111. This operational concept has been briefed by the author at Japan's Five-Power Strategic Dialogue Conference in Tokyo, as well as to senior U.S. defense officials and military leaders, to include flag officers from the Joint Staff, the U.S. Indo-Pacific Command, the U.S. Army Staff, and the U.S. Navy Staff, to include the chief of naval operations.

⁸ See, for example, this author's observations on the issue of operational challenges and concepts in "Providing for the Common Defense," *National Defense Strategy Commission*, 2018, pp. 72-75.

have been developed on the U.S. side have come primarily from members of the strategic studies community, not America's military professionals.⁹

The Chinese are putting their limited resources to good use, building capabilities designed to create strengths that can be leveraged to transform the U.S. military's strengths into weaknesses. Thus we see the PLA emphasizing attacking the U.S. military's "nervous system" with its anti-satellite (ASAT) systems and cyber malware, as well as its deployment of missile and other strike forces designed to hold at risk the American armed force's "muscle:" its handful of forward air bases and aircraft carriers.

The United States defense investments are, in some important ways, underwriting China's strategy. The U.S. Air Force and U.S. Navy continue investing heavily in capabilities the PLA is focusing on holding at risk. Both Services plan to procure large numbers of relatively short-range, or tactical, aircraft like the F-35 that operate from increasingly vulnerable carriers or forward air bases. Meanwhile, the Air Force's aging penetrating bomber fleet comprises only a handful of B-2s, with its follow-on bomber, the B-21, not projected to enter service until the middle of the next decade, at the earliest. The Navy's unmanned aircraft program, the MQ-25, is being designed as a tanker to support its short-range tactical aircraft, rather than as a long-range penetrating reconnaissance-strike system. Moreover, the Navy's SSGN four-boat fleet is reaching the end of its service life, with no follow-on system in sight.¹⁰

The U.S. military continues relying on large, increasingly vulnerable satellites as critical elements of its battle network, especially for communications as well as for precision navigation and timing. To be sure, alternatives to the current satellite constellation are likely to prove either challenging to develop and/or expensive to procure.

In summary, based on an assessment of open-sourced intelligence, the Chinese are much superior to their American rivals when it comes to pursuing strategies that develop strengths to align against their rival's weaknesses.

The Social Dimension: Given the United States' progressively weakening fiscal standing, sustaining an open-ended military competition with China will very likely require significant sacrifices on the American people's part, if not in the near term almost certainly by the end of the coming decade. The same might be true of the Chinese people. But the Chinese Communist Party (CCP) appears to have an advantage when it comes to getting its people to "eat bitterness."¹¹ The Party also appears to have bested America's political elite in mobilizing their people to support such an effort. The Social Dimension of the competition is, in my estimation, where U.S. competitiveness is most lacking.

⁹ See, for example, Krepinevich, *Archipelagic Defense*. See also Jan van Tol, with Mark Gunzinger, Andrew Krepinevich, Jr., and Jim Thomas, *AirSea Battle: A Point of Departure Operational Concept* (Washington, DC: CSBA, 2010).

¹⁰ Each SSGN is capable of firing up to 154 cruise missiles. This represents the bulk of the U.S. submarine force's extended-range strike capability.

¹¹ I am indebted to Colonel (Retired) Larry Wortzel for introducing me to this term.

Implications for Deterrence

Deterrence in general is becoming a more difficult proposition.¹² This is also true, in particular, with respect to the U.S.-China military competition.

Since the end of World War II, the United States has placed great reliance on deterrence as the centerpiece of its defense strategy. This emphasis endures in the Trump administration's new National Security Strategy and National Defense Strategy. Yet the strategic environment in which deterrence must function has changed dramatically, and continues changing. Moreover, some lessons that we thought had emerged from our Cold War experience regarding the robustness of deterrence strategies have proven false. Similarly, some critical assumptions regarding how rationally humans behave when making decisions under conditions of risk have been overturned by remarkable advances in the cognitive and behavioral sciences.

Like its recent predecessors, the Trump administration has spent little time explaining exactly how the United States intends to deter existing and prospective rivals. The implicit assumption is that it needs no explaining, since modern weapons are so destructive that no sane leader would risk igniting a general war. Thus it follows that the requirements for deterrence are relatively modest.

But such confidence is profoundly misplaced. In fact, deterring aggression has become increasingly difficult, and it stands to become more difficult still, as a result of developments both technological and geopolitical.

Multipolarity, Technology and New Domains. The shift from the Cold War bipolar to the unipolar system that followed was more accommodating for deterrence than the emerging multipolar system where, in addition to lesser rivals, several great power rivals must be deterred. Advances in military capabilities are blurring the firebreak between conventional and nuclear warfare. As noted above, relatively new warfare domains like space, cyberspace and the seabed favor the attacker; furthermore, attacks in these domains are relatively difficult to attribute. These trends undermine deterrence.

Modern Weaponry. Political leaders typically make the decision to start a war in the belief that the military balance favors them. The problem in contemporary times, especially for modern military powers like the United States and China, is that most of the military systems in their armed forces have never been put to the test against a major military power. Thus it is difficult to say with any sense of clarity how effective these systems will be in combat. This opens the door for each side to draw some very different conclusions regarding the military balance. If both Washington and Beijing conclude the military balance favors their rival, deterrence is likely to prove robust. But what if both sides

¹² For a detailed assessment of the growing challenges associated with implementing deterrence strategies, see Andrew F. Krepinevich, Jr., *The Decline of Deterrence* (Washington, DC: The Hudson Institute, 2019). See also Andrew F. Krepinevich, Jr., "The Eroding Balance of Terror," *Foreign Affairs*, January-February 2019, pp. 62-74.

calculate the balance lies in their favor? Here the implications for deterrence are worrisome, indeed.

The Limits of Rational Behavior. Advances in the cognitive sciences are revealing how fragile deterrence may be. Recent insights into the nature of human decision-making raise questions about the very logic of deterrence. As a theoretical concept, deterrence rests on the assumption that where risk is involved, humans act rationally, in the sense that they base their decisions on a cost-benefit calculus and act only when the expected gains outweigh the anticipated costs. Over the past 40 years, however, research in behavioral economics has cast great doubt on this assumption. Humans, it turns out, cannot be counted on to always maximize their prospective gains. And even when they do, they are remarkably inept at understanding how the other side—the opponent in a conflict—calculates its own costs, benefits, and risks. Human nature hasn't changed, but our understanding of it has—in ways that bode ill for defense strategies built on deterrence.

One problem has to do with our understanding of how leaders conceive of losses. According to prospect theory, people will risk more to avoid losing what they already have, than to gain something of equal value. Thus, for example, policymakers will run higher risks to retain their own territory than to seize foreign territory of equal value. In theory, this phenomenon would seem to strengthen deterrence, since it predicts that leaders generally prefer to stick with whatever land and resources they already own, rather than attempt to seize what belongs to another. But the matter does not end there.

This is because of how decision-makers set their so-called reference point, which determines whether they consider their current situation to be one of loss or gain. One might expect that people always base their reference point on the status quo—the state of things at the time they make a decision. But such is not the case. After a series of gains, for instance, individuals normally adjust their reference point to the new status quo. Any subsequent setback looks to them like a loss rather than a gain forgone. We should therefore expect them to be relatively risk tolerant in their efforts to defend their latest gains, which they now see as a potential loss.

But this dynamic does not cut both ways. After individuals suffer losses, they tend not to adjust their reference point to the new, less favorable situation. Instead, they cling to the status quo ante. They therefore see their own attempts to retake what has been lost not as the pursuit of gains but as the recovery of losses. As a result, they are often ready to take great risks and accept high costs to achieve this end. To understand how a similar dynamic could play out today, look to the South China Sea, where Beijing is occupying and fortifying disputed territory, apparently intent on creating new facts on the ground. The United States and its allies, however, continue to view China's actions as illegitimate and retain the original situation as their reference point. If the dispute comes to a head, both the United States and China and its opponents will be operating from a reference point of loss. So deterring either side from pressing the issue may prove difficult.

Some Modest Recommendations

The following are some modest actions that Congress can pursue through hearings and other means at its disposal, but which have the potential to significantly improve the U.S. military's competitive position relative to the PLA.

Focused Hearings. Congress plays an important role in setting the defense agenda and educating the public on matters of strategic importance to the country's security. Hearings on the issues raised in this testimony, and on those topics listed immediately below, could make an important contribution toward this objective.

Time-Based Competition. A major source of U.S. competitive weakness is its inability to compete effectively based on time. Ways must be found to accelerate the fielding of new capabilities.

Cost-Imposing Strategies. Oftentimes Congress focuses its attention on how the U.S. military will respond to a particular new PLA capability. This is appropriate. But more attention needs to be accorded to encouraging the Defense Department to explore ways the U.S. military can impose disproportionate costs on the Chinese. Efforts along these lines were an important part of American defense strategy during the Cold War, but have often been discounted in recent years.

Promoting Innovative Operational Concepts. All too often Congress goes from identifying a threat to U.S. security to focus on a specific capability in the defense program without asking how that capability fits within military operations designed to address a challenge at the operational level of war. Secretary Mattis recognized this in his National Defense Strategy as a major problem for our military, and set developing innovative operational concepts as a priority. Congress can perform an important service by ensuring the Defense Department follows through on this initiative.

Conclusion

The current military balance in the Indo-Pacific region appears favorable. Key trends affecting the balance, however, are generally negative from a U.S. perspective. Relative to China, the United States has lost most of the large security cushion it inherited at the Cold War's end, and is accumulating security risk at an increasing rate. Moreover, the military competition with China is highly dynamic, providing both the PLA and the U.S. military with a rare opportunity to effect a disruptive shift in the balance.