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What Would Winning Look Like? A Scenario From The Future

**Testimony Submitted for the House Committee on Armed Services Subcommittee
on Cyber, Innovative Technologies**

Hearing on

“The Future of War: Is the Pentagon Prepared to Deter and Defeat America’s Adversaries?”

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Whether the Pentagon is prepared to deter and defeat America’s adversaries in the future turns on not merely our own plans and capabilities. It is actually determined by what our adversaries think of those plans and capabilities compared to their own.

Thus, a valuable approach in such discussions of strategy is to ask “What would winning look like?” not just for us, but to our foes, who fear such an outcome. We can then work backward and explore what are the potential elements of such a successful future history and how can we build towards them today?

A methodology for this cross of strategy and scenario is the deliberate blend of nonfiction with narrative communication techniques. Known as FICINT for “Fictional Intelligence” or “Useful Fiction,” the goal is not to replace the traditional white paper, article, or memo, but to achieve a greater impact of research and analysis through sharing insights through the oldest communication technology of all: Story. The narrative is designed to allow a reader to visualize new trends, technologies, or threats, not just from altered perspectives, but in a format that the science of the brain shows is more likely to lead to both understanding and action. As such, the approach has been used by organizations that range from the U.S. and NATO militaries to Fortune 500 companies.

The following is such a scenario designed to visualize various elements of “What Would Winning Look Like?” in a successful future, where the Pentagon proved able to deter and defeat America’s

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adversaries. It envisions a positive outcome in the central dilemma in current U.S. defense planning and congressional concern: how to successfully deter the PLA from attacking Taiwan over the long term, especially as the PLA advances its strength and confidence.

The narrative, which is set an unspecified number of years in the future, is told from the perspective of an imagined PLA officer in the wake of a leadership purge after the regime failed to bring Taiwan under Communist rule, despite decades of military buildup. It thus explores various conditions that might lead China to “blink” in its long-running threat against Taiwan, as well as how US policy might create such conditions through:

- Keeping pace with ongoing changes in technology and warfare
- Training and equipping US and allied military personnel to have needed skills cutting across the kinetic as well as cyber/info space
- Building greater resilience, both in the US and in Taiwan
- Learning lessons from recent conflicts in Ukraine and elsewhere
- Creating “imperial overstretch” and readiness challenges for our foes
- Bolstering regional capability and will to resist China

That is, the scenario blends fact-based research with story, to share purposeful lessons with application across a wider set of issues for the future of war.

To clarify, while every trend, technology, and policy recommendation woven into the narrative is real, the narrative is not “prediction.” Rather, it is meant to stoke healthy discussion and debate about the future of war and deterrence, by envisioning elements of a successful outcome of the Subcommittee’s work.

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OPENING STATEMENT BY PRISONER R-45 TO THE PEOPLE'S COMMITTEE FOR REVOLUTIONARY RENEWAL

I offer my gratitude to the People's Committee for Revolutionary Renewal for deigning to accept my opening statement. I come to you humbled and reflective, based on the welcome time that the new leaders of the Party have provided me to contemplate my extensive errors.

While I can only speak to my own past role as a general officer in the People's Liberation Army strategy cell, it is my duty to accept personal responsibility for our collective humiliation at the failure to complete our historic mission. We did not live up to the great trust placed on us, for which the Party struggled and the people sacrificed, literally for decades.

Solving the Taiwan question and realizing the complete reunification of the Motherland was the unswerving historical task of the Party from its founding. It has been the common aspiration of all our sons and daughters, and a requirement for realizing the great rejuvenation of the Chinese nation. As we now enter the second century of the Party's great rule, rejuvenated in leadership by the recent Revolutionary Renewal, I must apologize for our failures.

The Party had a theory of victory in this mission, which we who led the PLA at the time did not deliver upon. With reflection, I can now see how the pride and arrogance of a few led to such a heavy weight upon the shoulders of many, which was not recompensed with success. We missed the window of opportunity to unify China that was offered to us by the Party and by history. And for that, I am ashamed.

Just as each of us have rightly been asked to enumerate our crimes against the Party, so too shall I specify the areas where we failed in accomplishing reunification.

To begin, we seemingly grew in power and reach over the period of my service, yet the PLA's mission readiness, particularly within our naval forces, fell with each year that we looked farther and farther from home. It was much lower than reported because we military leaders lacked the courage to speak the truth. We avoided open-ended wargames and fleet problems, designed to

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test and learn, instead choosing scripted exercises that hid our flaws out of fear of the consequences.

It was not merely an issue of our own performance. At the same time, our foes made steady improvements that didn't just reflect lessons from their own experience of two decades of conflict, but grappled with the enormous changes occurring in technology and warfare itself. They didn't fall prey to political and bureaucratic inertia and the heavy weight of so-called "sunk cost" major platforms to keep them on the same path. Rather, their military instituted a wave of new initiatives and reforms. They altered everything from what systems they bought to how they bought them. While we depended upon a plan of "civil-military fusion," with a few state-supported corporate titans, they cultivated a more dynamic defense industrial marketplace, where their military could engage with and purchase from both big and small firms.

Even how they learned about innovation showed innovation. They didn't just create singular innovation hubs and experimental task forces in only a few locations, but scaled them across their force, such that every command had access to a more rapid means of learning and implementation. The Americans also scaled out contests that rewarded "bottom-up" proposals and fixes from the most junior of troops. These were hard to even contemplate in our force, but proved of great value to theirs. Indeed, I know the committee might think me a fiction writer, but the American military even created copies of the "Shark Tank" program that you may be familiar with from Shenzhen TV as "Dragon's Den," creating successful versions in their Airborne corps and then replicating them across every other unit.

We saw the effect of this mass culture of innovation, for instance, in how American military culture and industry alike overcame decades of doubt about unmanned systems. They soon deployed these "drones" across every domain, and, most importantly, in manners and designs that didn't just simply replicate the expensive manned systems they were replacing. They took advantage of robotics' unique attributes, allowing swarming and cheap, high-risk uses in the air, ground, and sea domains, especially under the waves. They also stayed one step ahead of the back and forth of arms races. Projecting our own planned use, they made sure to simultaneously develop and actually deploy counter-drone systems of kinetic, EW, and directed energy types.

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America's new hardware, though, wasn't perhaps the most important part of the story of their military acquisitions. It was how their hardware was integrated and advanced with the latest in the ongoing revolution in artificial intelligence. We sought to be the dominant power in intelligentization, but they made sufficient investments to keep pace with the civilian embrace of AI, and even push it forward toward new frontiers like in quantum technology.

It is striking to say, but here the American government bureaucracy proved as important as their software. While we built a centralized data model, reflecting our government and industry model, their Pentagon chose the path of a federated model of meshed data systems, which reflected their own democratic culture and the growing economy of microservices. It allowed simultaneous data ownership and a universal interoperability layer to foster communication between distributed data across different locations. Thus, their systems were not just smarter out on the edge of their use in the field, but also less vulnerable to the cyber attacks we had planned to transform the strength of their networks into vulnerabilities.

Unfortunately, the very same building of resilience happened across the new domains that we hoped to take away from them. In outer space, the American space forces eschewed their old approach of billion dollar platforms and single points of failure. Our threats of orbital warfare rank empty after they created redundancies and scale in their networks through fleets of micro-sats and cheap launch systems. In cyberspace, we similarly saw great opportunity in how the Americans seemed to be recreating all their same mistakes in the new "Internet of Things" that had made the original form of the Internet so vulnerable. Unfortunately, after a few episodes made evident what could be done to military networks, power systems, gas pipelines, and even hospitals, the Americans learned their lessons. With the higher stakes of digital attacks on physical systems becoming obvious, they finally created the needed requirements and regulations to bake cybersecurity in, while also aligning their standards with their allies.

Yet, the Americans didn't just create deterrence by denial, through making our attacks less likely to succeed. They pushed back and dared to engage us in persistent competition and even harassment on the information, economic, political, and cyber fronts. Most of these incidents are still difficult to attribute, which is by design, as they were often carried out by US and allied cyber and special operations forces in a deniable manner. Yet, as we sought more and more influence and presence in the world, it instead felt like we were constantly pushing against more than just

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normal operational friction. Our morale and confidence were repeatedly undermined, inefficiencies compounded, and local parties alienated.

Our arrogance prevented us from understanding the significance of what could be accomplished by such a long-running, strategic campaign put in place by Americans. Their aim was not merely to provide direct support to the illegal regime in Taiwan; they thought more broadly about both renewing their strength and eroding our global military, political, and economic effectiveness.

To us, our growing military presence and Belt and Road Initiative projects represented the means to gaining back the rightful power that our nation has historically wielded well beyond its borders. We failed to see that to them, this greater activity presented an opportunity to cause for us the very same kind of imperial overstretch that has long troubled great powers.

We were not able to overcome what turned out to be an array of initiatives meant to create resistance against the justness of our cause. For instance, our information and cyber campaigns, supplemented by military, diplomatic, and economic lines of efforts, sought to reproduce in Taiwan what we accomplished in Hong Kong, as both had been unjustly ripped away from us by foreign powers. We believed that, over time, we could simply use our growing power to awe into submission both the local population and, perhaps even more importantly, the government and business leaders of the wider world. They would be led to think that our victory was inevitable, so why fight it?

Alas, it was our alternative that became unthinkable. Taiwan's civilian and military populations alike were well not just physically, but cognitively prepared to resist. Our covert campaigns were not able to maintain their secrecy, in large part due to their combined cyber and diplomatic efforts. This drained the poison we sought to inject into their corrupt system, while efforts to distract and divide our global foes met with counters in each domain.

With peaceful reunification unlikely, that left us only with the option of an assault. It was the scenario that had driven decades of our military planning and reform, upon which the Party and the people had invested literally hundreds of billions in yuan. It was to be the culmination of all our careers.

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Yet when it came time to truly contemplate such action, we shamed ourselves and those who trusted us. For all our gains in hardware that we generals proudly paraded in front of you each year through the streets of Beijing, Taiwan's ability to repel an amphibious and airborne assault increased even more dramatically. It seems that they distracted us with all the talk of purchasing expensive new fighters and easy-to-target warships, when what they really built was an agile defense and a resilient society. With American aid, they gained widely distributed anti-air weapons and new swarming drone systems to take away our quantitative advantage in ships, tanks, and planes, and cheap, smart mines able to rapidly block the very seaways that we needed to cross.

This all transformed a once vulnerable target into the equivalent of a "porcupine," that ugly rodent native to America, which even the most powerful predator avoids. It was not just that even a successful invasion across the straits would have meant countless of our families without their only sons. It was that somehow digesting that barbed animal would prove ever more costly. We never figured out how our forces would be able to control a society prepared for resistance without great losses, especially in the urban terrain in and around Taipei, Kaohsiung, and Taichung.

For much of this, we can blame our pathetic "partners" to the north. They did not just drain our own resources; they also guided the world's democracies toward successful resistance models through the lessons learned from how their folly-filled invasion of their own break-away province was defeated.

The barbs of this porcupine also extended into new realms in creative ways that we failed to grapple with. As an example, for all our vaunted cyber capabilities, Taiwan's illegal government mirrored its digital systems outside the country in friendly nations, here again creating resilience through redundancy.

My discussion of all this high technology, however, must not miss our human mistakes. As we rolled out new missile after missile, assuming bombardment from afar might create the equivalent of a blockade of falling projectiles, new American units were formed to be able to operate within the very same areas to which we sought to deny access. Their forces developed the competency to operate across multi-domains and units became rapidly deploying networks of

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small teams, each able to operate in cohesion or independently, yet generate disproportionate kinetic and non-kinetic effects against our major systems. In turn, their special operations forces moved beyond the mentality of direct action honed during their wars against terrorists, which we mimicked with our own “Wolf Warrior” videos and mindset. Instead, they transformed, fielding innovative blended teams of technical experts and elite soldiers, able to provide a more comprehensive “full continuum” of uses, utilities, and identities. Underscoring these efforts was the building networks of personal and professional ties with their peers across the region.

Most of all, the Americans proved able to succeed at the most essential human part of any military: recruiting and retaining the best of their society. We had hoped that their domestic political divisions, amplified by our and Russian information operations, would be replicated in their military, tearing it apart from the inside. Instead, they created digital literacy programs like in their Baltic allies, to better equip their youth for a world of new online challenges and threats, while the US military proved able to retain its professionalism while evolving to reflect the new America that it both drew upon and protected.

This attention to the human element in warfare stands in contrast to our failure, especially to build up a truly professional NCO corps. You are well aware of our struggles to recruit and retain talent from our educated youth, especially amidst a population shrinkage and the greater lures of the competing civilian economy.

The human side of politics and war also became a factor in regional developments that further limited our options. Through both inducements and threats, we built a network of political, economic, and military cooperation agreements across Asia and beyond. It was bolstered by a strategy of growing other nations’ reliance upon our infrastructure and financing, provided at below-market rates. We supplemented this with extensive efforts to create similar dependence by their major corporations and even most wealthy individuals, such that they would dare not to cross us and even self-censor even the most mild critique. This was all as much about our own power as the tacit message that, during any crisis, it would be best for them to stand aside or face dire consequences for their own operations and bank accounts. We thought that this network of pressure could create wedges between Taiwan, the US, and its allies, denying them everything from global and domestic political support to needed military basing to crucial elements in their supply chain.

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We failed to realize that there was another side to this coin: what we invested could also be held hostage. They turned the tables on us, leaving us the ones isolated, and with a vulnerable supply chain and far-flung infrastructure investments that we struggle to defend from afar. Here again, the hand of America was at play. They identified and shored up dependencies, offering more palatable and profitable alternatives. They worked with regional partners in a manner that respected local priorities rather than only Washington's, building local confidence and capability to stand against us. In each bilateral tension, they saw multilateral opportunity. Our weaker neighbors now all align in opposition, in an arc running from India to Vietnam to the Philippines to Japan. Whatever historic grievances existed gradually became less important than their unity against what they grew to perceive as a greater threat.

These American allies proved as valuable to them as the feckless ones we put faith in failed us. Russia imagines itself a great power, but showed itself to be an ineffective junior partner. For all that we sensibly took advantage of Moscow's moment of need through rewriting deal terms and growing their dependence, Russia's loss in Ukraine was a strategic loss to us. Its defeat, ensured by NATO aid, didn't just hollow out one of our only allies' capability and confidence; it also signaled to the world that democracies could indeed resist aggression. So too did the mercurial potentates in the Persian Gulf disappoint us as much as they had the Americans. We must now admit that we made the very same mistake that they had for decades, confusing contracts for actual alliances.

In closing, I offer these lessons learned too late, in the pathetic hope that they might somehow prove of value to your own efforts to lead China into the second century of the Party's great vision. I fully understand that none of it excuses my own failings and those of my generation's leaders. For that, I can only beg for your forgiveness and mercy.

Key Elements For A Successful US Policy In The “What Would Winning Look Like?” Scenario:

1. Engage in open-ended wargames and fleet problems, designed to truly test and learn

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2. Avoid letting political and bureaucratic inertia and the heavy weight of “sunk costs” drive acquisition decisions
3. Create a more dynamic defense marketplace, where the military can engage with and easily purchase from both big and small firms
4. Scale innovation hubs and experimental task forces across the force, such that every command has access to a rapid means of learning and implementation.
5. Replicate more widely the current “Shark Tank” contests that reward “bottom-up” proposals and fixes from the most junior of troops
6. Invest in a new generation of unmanned systems, across *all* domains
7. Avoid “drones” that simply replicate the expensive manned systems they are replacing
8. Implement new doctrines and acquisitions that take advantage of robotics’ unique attributes, allowing swarming and cheap, high-risk uses
9. Develop and deploy counter-drone systems of kinetic, EW, and directed energy types
10. Invest in AI to match its growing importance in the civilian sector
11. Reform US military data networks to take advantage of AI and reflect commercial best practices, through creating a federated model of meshed data, that allows simultaneous data ownership and a universal interoperability layer to foster communication between distributed data across different locations
12. Create redundancies and scale in space networks through fleets of micro-sats and cheap launch systems
13. Create requirements and regulations to bake security into emerging Internet of Things systems, so as to limit physical damage from digital threats

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14. Align US cyber rules and regulations with major allies
15. Engage in persistent competition on the information, economic, political, and cyber fronts, designed to create greater friction for PLA and CCP, compound its operational inefficiencies, and worsen its relations with local parties
16. Build a strategy designed to foster “imperial overstretch” challenges for major foes and invert the perceived value of their Belt and Road investments
17. Utilize cyber and diplomatic means to repeatedly out covert campaigns by adversaries to undermine democracies
18. Provide Taiwan distributed anti-air weapons and unmanned systems to take away adversary quantitative advantage, and cheap, smart mines to block seaways
19. Aid in Taiwanese efforts to create a society prepared for resistance, especially in urban settings
20. Mirror Taiwanese and other allied digital systems outside the countries, creating resilience through redundancy.
21. Scale new US military units able to operate across multi-domains, rapidly deploying networks of small teams, each able to operate independently yet generate disproportionate kinetic and non-kinetic effects against major systems
22. Transform Special Operations Forces into blended teams of technical experts and elite soldiers, able to provide a more comprehensive “full continuum” of uses, utilities, and identities,
23. Build networks of personal and professional ties between US officers and their peers across the INDOPACOM region

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24. Create digital literacy programs modeled after successful allied efforts, to better equip American society for new online challenges and threats
25. Ensure that the US military is able to retain its professionalism while evolving to reflect the new America that it both draws upon and protects
26. Work with regional partners in a manner that respects local priorities rather than only Washington's
27. Seek to bolster multilateral ties between key states that each have worsening bilateral ties with China
28. Do not confuse contracts for shared values or actual alliances that will deliver in crisis
29. Raise costs for China's aid to Russia in the Ukraine war, worsening ties between the two
30. Ensure Russia's defeat in Ukraine, both to weaken it and its allies, as well as provide a model of success and inspiration for other democracies under threat

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Biography:

Peter Warren Singer is Strategist at New America, a Professor of Practice in Global Security at Arizona State University, and a founder and managing partner at Useful Fiction. He has served as a consultant for the US military and intelligence community and previously worked at Harvard University, The Brookings Institution, and the Office of the Secretary of Defense. A best-selling author of both fiction and non-fiction, he has had more books on the US military professional reading lists than any other author, living or dead.

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The scenario essay was developed in partnership with the author and futurist August Cole. Bio at <https://www.augustcole.com/>