



Reality Check: Chinese Military Spending in Context

William D. Hartung¹

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The notion that the United States must increase its military budget and deploy a new generation of high-tech weapons to "keep up" with China is a common assertion in Washington policy making circles. One key element of this argument is the claim that China's military budget is much higher than officially reported and is in fact rapidly catching up with the amounts spent by the United States. It is a short step from there to a series of arguments about spending more on the Pentagon overall and accelerating or sustaining a whole array of new weapons programs.

This issue brief aims to put the arguments about China's military budget and capabilities in context, both by exploring the available data on *how much* Beijing spends and by putting the issue of that spending in a larger context. The brief is organized in a series of points regarding the U.S.-China military relationship. The points are summarized as follows:

1) The U.S. Outspends China on Its Military By a Substantial Margin

Some experts have argued that China's military expenditures are far higher than official reporting would suggest, once differences in purchasing power and the full range of China's military-related activities are taken into account. But the most commonly used estimate of Chinese military spending, the annual analysis by the Stockholm International Peace Research Institute (SIPRI), does in fact account for a wide range of activities that are outside of official Chinese figures. The latest SIPRI estimate puts U.S. military spending at a full three times what China spends – \$877 billion versus \$292 billion for 2022.²

Even figures that attempt to adjust for relative purchasing power like Peter Robertson's analysis based on his measure of "military Purchasing Power Parity" (PPP) – which are at best rough estimates – put U.S. spending levels well over spending by China, at \$806 billion versus \$476 billion for 2021, the most recent year that an estimate based on the military PPP approach is available. Thus, even under Robertson's measure, Chinese spending is 59%

¹ William D. Hartung is a Senior Research Fellow at the Quincy Institute for Responsible Statecraft.

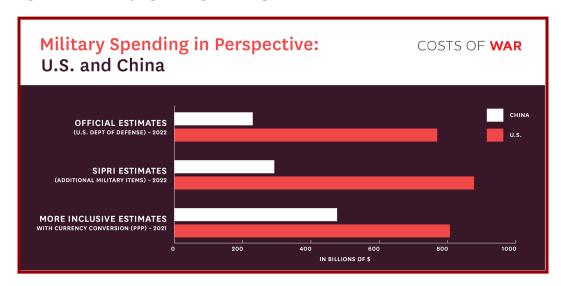
² Tian, N.; Lopes da Silva, D.; Liang, X.; Scarazzato, L.; Béraud-Sudreau, L.; and Carolina Oliveira Assis, A. (2023, April). *Trends in World Military Expenditure, 2022.* Stockholm International Peace Research Institute. https://www.sipri.org/sites/default/files/2023-04/2304 fs milex 2022.pdf

of U.S. levels.³ These figures provide the best available estimates of annual Chinese military spending in recent years: between \$292 - \$476 billion.

Below are comparisons of U.S. and Chinese Military Spending in three scenarios:

- 1) Official figures, which exclude key military-related items⁴
- 2) Stockholm International Peace Research Institute (SIPRI) figures, which attempt to include all military-related items contained in official Chinese figures⁵
- 3) Figures that attempt to adjust for relative U.S. and Chinese purchasing power⁶

Figure 1: Military Spending in Perspective: U.S. and China



Sources: See footnotes 4, 5, and 6

https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPM ENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF; U.S. Department of Defense. (2022, November). *Military and Security Developments Involving the People's Republic of China 2022.*

https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOP MENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF.

Source for U.S. figure: U.S. Department of Defense. *National Defense Budget Estimates for FY 2024.* Table 1-1, p. 6. https://comptroller.defense.gov/portals/45/documents/defbudget/fy2024/fy24 green book.pdf

https://www.sipri.org/sites/default/files/2023-04/2304 fs milex 2022.pdf

³ Robertson, P. (2023, August 23). *China's Military Rise. How big is the spending gap and how fast is it catching-up with the USA?* Military Purchasing Power. https://militaryppp.com/2023/08/23/chinas-military-rise/

⁴ Official Chinese Government figure: \$229 billion (2022); [Official U.S. figure for 2022: \$769 billion] Source for China figure: U.S. Department of Defense. (2023, October). *Military and Security Developments Involving the People's Republic of China 2023.* p. 164.

⁵ Figure with military-related items absent from official Chinese estimate added: \$292 billion (2022) [U.S. figure using same methodology, \$877 billion (2022).] Tian, N.; Lopes da Silva, D.; Liang, X.; Scarazzato, L.; Béraud-Sudreau, L.; Oliveira Assis, A. (2023, April). *Trends in World Military Expenditure, 2022.* Stockholm International Peace Research Institute.

⁶ Figure accounting for additional military items *and* attempting to adjust for differences in purchasing power: \$476 billion (2021) [U.S. figure using same methodology: \$806 billion (2021)]. Robertson, P. (2023, August 3). *China's Military Rise. How big is the spending gap and how fast is it catching-up with the USA?* Military Purchasing Power. https://militaryppp.com/2023/08/23/chinas-military-rise/

2) Spending Figures Alone Are Not the Best Measure of Military Power

Spending figures taken by themselves do not account for the relative size of military forces produced by said spending, whether the systems produced are of high quality, the quality of training of military personnel, whether the expenditures serve a coherent strategy, or what geographic area those forces are focused on. One thing is clear – the United States outpaces China substantially on most key measures of military power, from naval combat capacity, to numbers of transport and advanced combat aircraft, to numbers of nuclear weapons. However, these comparisons do not capture the question of relative military power in the Western Pacific, where China holds a geographical advantage and has increased its capabilities considerably compared to a few decades ago. But as a report by the Quincy Institute has noted, "Efforts by the United States to restore military dominance in the region through offensive strategies of control are unlikely to succeed. Not only would such efforts prove financially unsustainable; they could also backfire by exacerbating the risk of crises, conflict, and rapid escalation in a war."

3) China Does Not Pose a Direct Military Threat to the United States

China's military strategy is inherently defensive, and it has limited ability to project power outside of its own region. The greatest risk of a U.S.-China military confrontation would be a war over Taiwan, which is addressed below in point four.

4) A China-U.S. War Over Taiwan Would Be a Disaster for All Concerned

A war between China and the United States over the status of Taiwan would come at a high cost for all concerned and might even escalate into a nuclear confrontation. The best route to preventing a Chinese invasion of Taiwan is to revive the "One China' policy – which calls, among other things, for China to commit itself to a peaceful resolution of the question of Taiwan's status, and for the U.S. to forswear support for Taiwan's formal independence and maintain only informal relations with the Taiwanese government.

5) Cooperation Between Washington and Beijing Is Essential to Solving the World's Most Urgent Problems

The U.S. and China have ample areas where cooperation is not only advisable, but in some cases essential to promoting a peaceful, secure, and stable world. These urgent tasks cannot and should not be subordinated to policies of bellicose rhetoric and misguided military competition.

https://quincyinst.org/report/active-denial-a-roadmap-to-a-more-effective-stabilizing-and-sustainable-u-s-defense-strategy-in-asia/

⁷ Quincy Institute. (2022, June 22). *Active Denial: A Roadmap to a More Effective, Stabilizing, and Sustainable U.S. Defense Strategy in Asia.* Quincy Paper No. 8.

Point One: The U.S. Outspends China on Its Military by a Substantial Margin

The Pentagon's most recent annual report on Chinese Military Power stated that China's reported defense spending for 2022 was slightly more than \$229 billion.⁸ That is well under the \$769 billion that the U.S. spent for defense in that same year.⁹

Some experts, as well as the Pentagon itself, say that Chinese military spending is actually larger than this figure suggests. A recent article in *Foreign Policy* goes so far as to cite an (unsubstantiated) claim by Sen. Dan Sullivan (R-Alaska) that the U.S. government believes that China spends \$700 billion per year on its military, more than twice the widely used \$292 billion estimate made by the Stockholm International Peace Research Institute. ¹⁰

Critics of official estimates raise two main points: 1) Official Chinese military spending figures leave out significant military activities such as military space capabilities, military R&D and more; 2) China's investments in military power go further per amount of currency spent due to cheaper costs for labor and other inputs, a concept related to the economic measure known as Purchasing Power Parity (PPP). However, these points are overstated. Chinese military spending is substantially less than U.S. military spending, and here's why:

On the question of how much military-related activity is left out of widely used estimates of Chinese military spending, SIPRI does annual estimates that do in fact take into

MENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF

⁸ U.S. Department of Defense. (2023). *Military and Security Developments Involving the People's Republic of China 2023.* p.164. The Pentagon also notes that "in 2022, China's actual military-related spending could be significantly higher than its officially announced defense budget. Actual PRC military expenses are difficult to calculate, largely due to the PRC's lack of transparency. United Kingdom and Europe-based think tanks estimate that the PRC's actual 2022 defense budget is at least 30-40 percent higher than the PRC's announced budget." These issues will be discussed in detail below.

https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPM ENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOP

⁹ Office of the Under Secretary of Defense (Comptroller). (2023, May). *National Defense Budget Estimates for FY 2024*. https://comptroller.defense.gov/portals/45/documents/defbudget/fy2024/fy24 green book.pdf
¹⁰ Tian, N.; Lopes da Silva, D.; Liang, X.; Scarazzato, L.; Béraud-Sudreau, L.; and Carolina Oliveira Assis, A. (2023, April). *Trends in World Military Expenditure, 2022*. Stockholm International Peace Research Institute. https://www.sipri.org/sites/default/files/2023-04/2304 fs milex 2022.pdf These points are emphasized in a recent piece by Wilson Beaver of the Heritage Foundation and Peter Robertson of the University of Western Australia. Their piece, which appeared in *Foreign Policy*, is entitled "China's Defense Budget is Much Bigger Than it Looks" (see note 4). The article cites an (unsubstantiated) claim by Sen. Dan Sullivan (R-Alaska) that the U.S. government believes that China spends \$700 billion per year on its military, more than twice the widely used \$290 billion estimate made by the Stockholm International Peace Research Institute. The authors suggest that Sullivan's assertion about Chinese military spending is credible, once one accounts for military-related items Beijing does not include in its official military spending figures, along with the differences in U.S. and Chinese purchasing power per unit of currency spent.

¹¹ Robertson, P.; Beaver, W. (2023, September 19). *China's Defense Budget is Much Bigger Than it Looks*. https://foreignpolicy.com/2023/09/19/china-defense-budget-military-weapons-purchasing-power/

account a wide range of activities not included in China's officially reported military budget, adding about 40% to the official total to account for those items. ¹²

In its explanation of the methodology behind its estimate, SIPRI notes that it accounts for an extensive list of activities *outside of* the official Chinese military expenditure figures:¹³

- (a) spending on the paramilitary People's Armed Police (PAP);
- (b) soldiers' demobilization and retirement payments from the Ministry of Civil Affairs;
- (c) additional military research, development, testing and evaluation (RDT&E) funding outside the national defense budget;
- (d) additional military construction expenses;
- (e) commercial earnings of the People's Liberation Army;
- (f) subsidies to the arms industry;
- (g) Chinese arms imports;
- (h) the Chinese Coast Guard

At the same time, when it comes to U.S. spending, one must also acknowledge the fact that many military-related costs are not accounted for in official figures on the Pentagon budget. Applying the same standard to U.S. spending figures as critics apply to Chinese spending would require the addition of the following categories to the official reported statistics on U.S. military spending:

- (a) Nuclear weapons maintenance and research
- (b) Homeland security functions (includes Coast Guard and border security)
- (c) Intelligence agencies
- (d) Veterans' benefits

Adding the above-mentioned categories to the Pentagon's proposed budget of \$842 billion for Fiscal Year 2024 increases the figure for U.S. military spending by over \$460 billion, bringing total national security spending to more than \$1.3 trillion. Intelligence spending adds another \$70 billion per year, but many analysts believe that those funds are hidden within other budget line items, especially the Pentagon, so they may or may not add to the total spending figure.

As noted above, the second major argument for assigning a higher figure to China's military outlays is that its investments in military power go further per amount of currency spent due to cheaper costs for labor and other inputs, a concept related to the economic measure known as Purchasing Power Parity (PPP). This factor has too often been vastly

¹⁴ Center for Arms Control and Non-proliferation. (2023, April 4). *Fiscal Year 2024 Defense Budget Request Briefing Book*. https://armscontrolcenter.org/fiscal-year-2024-defense-budget-request-briefing-book/; U.S. Department of Homeland Security. *Budget-in-Brief Fiscal Year 2024*.

https://www.dhs.gov/sites/default/files/2023-03/DHS%20FY%202024%20BUDGET%20IN%20BRIEF%20%28BIB%29 Remediated.pdf

¹² Stockholm International Peace Research Institute. *Sources and Methods: SIPRI Military Expenditure Database*. https://www.sipri.org/databases/milex/sources-and-methods

¹³ Stockholm International Peace Research Institute.

¹⁵ GlobalSecurity.org. Intelligence Budget. https://www.globalsecurity.org/intell/library/budget/intro.htm

overstated, as in the figure attributed to Sen. Sullivan, above. The PPP approach addresses a legitimate issue, but current attempts to apply it have significant limitations that have led some analysts to go so far as to argue that it is not a useful way to assess relative military expenditures. But even if one attempts to adjust for relative purchasing power, it still leaves U.S. investments in its military far higher than China's.

SIPRI has explicitly chosen not to use standard PPP estimates because it asserts that "[t]he extent to which this data [based on PPP] reflects the amount of military goods and services that the military budget can buy is not known." That's because PPP is primarily concerned with the costs of civilian goods and services, which are far different from the costs of specialized military goods.¹⁶

Estimates that do use PPP to adjust spending figures put U.S. spending at roughly twice China's level, based on an adjusted figure for China of at most \$476 billion, far below the \$700 billion figure cited by Sen. Sullivan.¹⁷

In fact, the most detailed analysis based on purchasing power, carried out by Peter Robertson, the coauthor of the *Foreign Policy* piece cited above, puts Chinese military spending at 59% of the U.S. level after accounting for items not included in official Chinese estimates and adjusting for differences in purchasing power. For purposes of his estimate, Robertson attempts to construct a measure he calls "military PPP" that looks at specific costs of military inputs rather than applying a measure pegged to buying power in the relevant economy as a whole. Robertson acknowledges that "[c]aution is . . . required since the military-PPP values discussed here are based on very aggregate data and involve approximations." As of this writing, an independent analysis of Robertson's methodology is not available, but it's fair to say that attempts to adjust figures for Chinese military spending to account for differences in purchasing power are rough estimates at best.

Another analysis, in a March 2021 report by the Center for Strategic and International Studies (CSIS), suggests that as of 2019 Chinese military spending was about \$100 billion

https://cepr.org/voxeu/columns/debating-defence-budgets-why-military-purchasing-power-parity-matters

¹⁶ SIPRI sources and methods, op. Cit. SIPRI notes that "Such PPP rates are designed to reflect the purchasing power for goods and services that are representative of spending patterns in each country, that is, primarily for civilian goods and services. Military expenditure is used to purchase a number of goods and services that are not typical of national consumption patterns. For example, the price of conscripts can be assumed to be lower than the price of a typical basket of goods and services, while the prices of advanced weapon systems and of their maintenance and repair services can be assumed to be much higher. The extent to which this data reflects the amount of military goods and services that the military budget can buy is not known."

¹⁷ See, for example, *Lowy Institute Asia Power Index (2023 Edition)*. https://power.lowyinstitute.org/data/military-capability/defence-spending/military-expenditure-defence-sector-ppp/

¹⁸ Robertson, P. (2023, August 23). *China's Military Rise. How big is the spending gap and how fast is it catching-up with the USA?* Military Purchasing Power. https://militaryppp.com/2023/08/23/chinas-military-rise/

¹⁹ Robertson, P. (2021, October 9). *Debating defence budgets: Why military purchasing power parity matters.* Center for Economic and Policy Research.

more than the officially reported figure once additional items and differential purchasing power are taken into account.²⁰

Thus, even with PPP taken into account, it is safe to say that U.S. military spending is still roughly double China's.

Former DoD Comptroller Dov Zakheim, who is an advocate of using the Purchasing Power Parity method of measuring relative military spending, puts U.S. spending at "more than double" China's in PPP terms, and has said, "American spending on defense continues to dwarf Beijing's budget."²¹

In short, measured by spending figures alone, there is no reason to increase U.S. military spending to "match" China. But as we discuss below, gross spending figures are not necessarily the best or only way to assess relative military capabilities.²²

Point Two: Spending Figures Alone Are Not the Best Measure of Military Power

Spending figures taken by themselves are not an adequate measure of relative military power. They do not account for the relative size of military forces produced by said spending, whether the systems produced are of high quality, the quality of training of military personnel, whether the expenditures serve a coherent strategy, or what geographic area those forces are focused on.

When these considerations are taken into account, it is abundantly clear that the United States outpaces China substantially on a number of key measures of military power.

Notably, the U.S. Navy is far superior to the Chinese Navy in terms of tonnage. Thus, U.S. warships are generally larger and more capable, which is a more important measure of capability than merely counting numbers of ships. As for major aircraft carriers or "big decks," the U.S. leads China with 11 versus just two for the Chinese Navy, and the Chinese vessels are significantly less capable. Almost the same level of both qualitative and quantitative superiority pertains to the "small decks" or amphibious attack ships. China also has fewer destroyers and cruisers than the U.S. holdings of larger surface combatants (70 versus 49).²³

https://www.csis.org/analysis/understanding-chinas-2021-defense-budget

²⁰ Funaiole, M.; Hart, B.; Glaser, B.; Chan, B. (2021, March 5). *Understanding China's 2021 Defense Budget*. Center for Strategic and International Studies.

²¹ Zhakeim, D. (2023, March 10). *China and the US Defense Spending Are Heading in Opposite Directions.* The Hill.

 $[\]frac{https://thehill.com/opinion/national-security/3892286\text{-}china\text{-}and\text{-}us\text{-}defense\text{-}spending\text{-}are\text{-}heading\text{-}in\text{-}opp}}{osite\text{-}directions/}$

²² This point is underscored in a 2022 paper by the International Institute for Strategic Studies: "[T]here are limitations as to what the final budget figure reveals about a country's military capability, strength, effectiveness or progress towards strategic goals. It is an input measure only.": International Institute for Strategic Studies. (2022, December). *Military Expenditure: Transparency, Defence Inflation, and Purchasing Power Parity*. https://www.iiss.org/en/research-paper/2022/12/military-expenditure/

²³ International Institute for Strategic Studies. *The Military Balance 2023.* p. 240. https://www.iiss.org/en/publications/the-military-balance/; Roblin, S. (2021, April 9). *Is China's Navy*

Most decisively, the U.S. Navy retains a massive lead in nuclear submarines (68 versus 12).²⁴ In addition, the United States has nearly three times as many modern combat aircraft as China does, 2,930 to 1,058.²⁵

China lags behind the U.S. even further in aerial refueling aircraft, with fewer than 25 compared to more than 400 for the United States. This differential limits Beijing's ability to operate beyond its own region.²⁶

The United States also has a much larger stockpile of nuclear weapons than China does – 4,500 strategic warheads in its active stockpile versus 410 for China.²⁷ Recent Chinese efforts to expand its nuclear arsenal – even if they proceed at the maximum level predicted by the Pentagon – will still leave its number of deployed weapons close to or substantially below those of the United States.²⁸ The Pentagon claims that China could possess up to 1,000 strategic warheads by 2030, compared to the current U.S. arsenal of over 1,600 deployed strategic warheads, with thousands more in reserve.²⁹ Even if the Pentagon's projections prove correct, the United States would still have far more nuclear weapons than needed to dissuade another nation from attacking it.

Building up U.S. forces further in response to Beijing's efforts to catch up, as advocated in a recent Congressionally-mandated report, would most likely just set off an escalatory spiral in which each side – plus Russia – rushes to build ever higher numbers of sophisticated nuclear weapons, increasing the risks of a nuclear conflict by accident or design.³⁰

^{&#}x27;Larger' Than America's? The National Interest.

 $[\]frac{\text{https://nationalinterest.org/blog/buzz/china\%E2\%80\%99s-navy-\%E2\%80\%98larger\%E2\%80\%99-america\%E2\%80\%99s-182415}{\text{a}\%E2\%80\%99s-182415}$

²⁴ International Institute for Strategic Studies. *The Military Balance 2023.* p. 239. https://www.iiss.org/en/publications/the-military-balance/

²⁵ Quincy Institute for Responsible Statecraft. (2022, June 22.) *Active Denial: A Roadmap to a More Effective, Stabilizing, and Sustainable U.S. Defense Strategy in Asia.* Quincy Paper No. 8. https://quincyinst.org/report/active-denial-a-roadmap-to-a-more-effective-stabilizing-and-sustainable-u-s-defense-strategy-in-asia/

Quincy Institute for Responsible Statecraft. (2022, June 22.) *Active Denial: A Roadmap to a More Effective, Stabilizing, and Sustainable U.S. Defense Strategy in Asia.* Quincy Paper No. 8. https://quincyinst.org/report/active-denial-a-roadmap-to-a-more-effective-stabilizing-and-sustainable-u-s-defense-strategy-in-asia/

²⁷ Kristensen, H.; Korda, M.; Johns, E.; Kohn, K. (2023, March 31). *Status of Nuclear World Forces*. Federation of American Scientists. https://fas.org/initiative/status-world-nuclear-forces/

²⁸ Klare, M. (2023, January 12). *A Pentagon Report on China Fuels a Military Spending Frenzy in the US.* The Nation.

https://www.thenation.com/article/world/pentagon-report-on-china-fuels-military-spending-frenzy-in-us/ ²⁹ Cadell, C. (2023, October 19). *China's Nuclear Arsenal on Track to Double by 2030, Pentagon Reports.* The Washington Post.

https://www.washingtonpost.com/national-security/2023/10/19/china-military-power-report-nuclear/; Kristensen, H.; Korda, M.; Johns, E.; Kohn, K. (2023, March 31). *Status of Nuclear World Forces*. Federation of American Scientists. https://fas.org/initiative/status-world-nuclear-forces/

³⁰ For an analysis of the implications of following calls for an expansion of the U.S. nuclear arsenal see Kristensen, H.; Korda, M.; Johns, E.; Knight, M. (2023, October 12). *Strategic Posture Commission Report Calls for Broad Nuclear Buildup.* Federation of the American Scientists.

https://fas.org/publication/strategic-posture-commission-report-calls-for-broad-nuclear-buildup/

In the short-term it is essential to carry on a discussion aimed at enhancing crisis communications between Washington and Beijing. Eventually there should be moves towards substantially reducing each side's nuclear holdings – a task complicated by the current numerical superiority of the U.S. nuclear arsenal. A recent U.S.-China dialogue on nuclear arms control is a hopeful sign that this issue can be addressed in earnest at some point down the road.³¹

The U.S.-China balance in the realm of emerging technologies – pilotless aircraft, land vehicles and ships, hypersonic weapons, and offensive cyber systems, all driven by artificial intelligence and capable of operating without humans in the loop – is less clear. Undersecretary of Defense Kathleen Hicks addressed this question in an August 2023 speech at a conference organized by the National Defense Industrial Association (NDIA), the arms industry's largest trade group. She introduced the "Replicator Initiative," which is designed, among other things, to develop "swarms of drones" that can hit 1,000 or more targets within a 24-hour period. Hicks described the purpose of the initiative as follows:

"To stay ahead [of China], we're going to create a new state of the art ... leveraging attritable, autonomous systems in all domains which are less expensive, put fewer people at risk, and can be changed, upgraded or improved with substantially shorter lead times ... We'll counter the PLA's [People's Liberation Army's] mass with mass of our own, but ours will be harder to plan for, harder to hit, and harder to beat." 32

China is investing in all of the types of systems referenced in Hicks's speech. The question is whether racing to build AI-driven systems serves the security needs of either nation, as opposed to an effort to put some guardrails around their development, use and deployment. A May 2023 report by the Arms Control Association (ACA) identifies the major risks posed by emerging technologies, including shorter decision-making times, overwhelming amounts of data to process, increased uncertainty about the nature of any given attack, and pressure to take humans out of the decision making process.³³ A companion ACA report lays out the implications of the above-mentioned risks:

"[E]ven as the U.S. military and those of other countries accelerate the exploitation of new technologies for military use, many analysts have cautioned against proceeding with such haste until more is known about the inadvertent and hazardous consequences of doing so. Analysts worry, for example, that AI-enabled

³¹ The Editorial Board. (2023, November 4). *Nuclear Talks With China Are Essential and Long Overdue*. New York Times. https://www.nytimes.com/2023/11/04/opinion/sunday/china-nuclear-weapons-russia.html

³² National Defense Industrial Association. (2023, August 28). *Deputy Secretary of Defense Kathleen Hicks Keynote Address: 'The Urgency to Innovate' (As Delivered)*.

 $[\]underline{https://www.defense.gov/News/Speeches/Speech/Article/3507156/deputy-secretary-of-defense-kathleen-hicks-keynote-address-the-urgency-to-innov/$

³³ Bugos, S. (2023, May). *Arms Control Tomorrow: Strategies to Mitigate the Risks of New and Emerging Technologies.* Arms Control Association.

https://www.armscontrol.org/sites/default/files/files/Reports/ACA Report ArmsControlTomorrow.pdf

systems may fail in unpredictable ways, causing unintended human slaughter or uncontrolled escalation."³⁴

The ultimate escalation would be a nuclear confrontation sparked by a malfunction of an AI-driven system or a misinterpretation of an incoming conventional strike as a nuclear attack. More attention needs to be paid to how to regulate emerging technologies before they are introduced into widespread military use.

The differences in the relative size of the U.S. and Chinese holdings of key weapons systems are just one variable in comparing U.S. and Chinese military capabilities. Importantly, they do not capture the question of relative military power in the Western Pacific, where China holds a geographical advantage and has increased its capabilities considerably compared to a few decades ago. But a report by the Quincy Institute that outlines a new U.S. defense strategy for Asia points out that the answer is not to simply race to reestablish U.S. military superiority in the region:

"Efforts by the United States to restore military dominance in the region through offensive strategies of control are unlikely to succeed. Not only would such efforts prove financially unsustainable; they could also backfire by exacerbating the risk of crises, conflict, and rapid escalation in a war." ³⁵

The Quincy report proposes an alternative strategy referred to as "active denial," which focuses on defensive measures aimed at deterring potential Chinese military action and keeping any conflict limited rather than attempting to achieve "all aspects military dominance" in Asia or engaging in offensive activities like striking targets deep inside China, or attempting to "paralyze and destroy the adversary's larger military system." The strategy calls for an emphasis on air and naval forces over ground units, and would include development of a Navy composed of fewer large ships and more smaller surface combatants, an Air Force that sheds older aircraft in favor of more modern systems, and a smaller Army and Marine Corps in keeping with their lesser relevance to a contingency involving China. The strategy can be a smaller at the contingency involving China.

The active denial strategy also calls on U.S. allies in the region, especially Japan and Australia, to do more in their own defense.

Most importantly, a new defense strategy for East Asia must be embedded in a diplomatic framework that addresses areas of mutual concern before they spark conflict or evolve into a costly, counterproductive arms race.

³⁴ Klare, M. (2023, February). *Assessing the Dangers: Emerging Technologies and Nuclear (In)Stability.* Arms Control Association.

https://www.armscontrol.org/sites/default/files/files/Reports/ACA_Report_EmergingTech_digital.pdf

³⁵Quincy Institute for Responsible Statecraft. (2022, June 22.) *Active Denial: A Roadmap to a More Effective, Stabilizing, and Sustainable U.S. Defense Strategy in Asia.* Quincy Paper No. 8.

https://quincyinst.org/report/active-denial-a-roadmap-to-a-more-effective-stabilizing-and-sustainable-u-s-d efense-strategy-in-asia/

³⁶ Quincy Institute for Responsible Statecraft. (2022, June 22).

³⁷ Quincy Institute for Responsible Statecraft. (2022, June 22).

The Quincy Institute report estimates that an active denial strategy could save up to \$75 billion per year once fully implemented.³⁸

In short, the United States outpaces China in most measures of traditional military power, including nuclear forces, where it will still maintain an edge even after a potential buildup by Beijing. The main question of concern regarding a possible U.S.-China conflict is the military balance in the Western Pacific, especially in the event of a war over Taiwan. This scenario is addressed below, in point four.

Meanwhile, in the realm of emerging technologies, including AI-driven robotic weapons, the time is ripe for establishing some rules of the road regarding development and deployment before an arms race on this front spirals out of control.

Point Three: China Does Not Pose a Direct Military Threat to the United States

China currently represents little or no direct threat to the United States. The Chinese military is not presently configured, aside from nuclear forces, to strike the U.S. in a serious way. As suggested above, China currently has extremely limited capabilities to project power outside of its immediate region: few aircraft carriers, few attack submarines, few amphibious attack ships, few transports/refueling aircraft, and little combat experience.

Furthermore, China has a record of military restraint – Beijing has not fought a major war in more than 40 years. As Michael O'Hanlon of the Brookings Institution has noted, "by the standards of the history of rising powers, China's military buildup and its recent record on the use of force are both relatively restrained." And Dan Grazier of the Project on Government Oversight describes China's military strategy as "inherently defensive":

"[T]he investments being made are not suited for foreign adventurism but are instead designed to use relatively low-cost weapons to defend against massively expensive American weapons. The nation's primary military strategy is to keep foreign powers, and especially the United States, as far away from its shores as possible in a policy the Chinese government calls 'active defense'."

The primary exception to these examples is Taiwan, which is discussed below.

Point Four: A China-U.S. War Over Taiwan Would be a Disaster for All Concerned

A war between China and the United States over the status of Taiwan would come at a high cost for all concerned, and might even escalate into a nuclear confrontation. A series of war games conducted by the Center for Strategic and International Studies (CSIS) found

³⁸ Quincy Institute for Responsible Statecraft. (2022, June 22).

³⁹ O'Hanlon, M. (2023, June). *Getting China right: Resoluteness without overreaction.* Brookings Institution. https://www.brookings.edu/research/getting-china-right-resoluteness-without-overreaction

⁴⁰ Grazier, D. (2022, December 7). *China Threat Inflation and America's Nonsensical Plans.* Project on Government Oversight.

https://www.pogo.org/reports/china-threat-inflation-and-americas-nonsensical-plans

that while the United States could "win" a war to defend Taiwan from a Chinese amphibious assault, it would in many respects be a Pyrrhic victory.

As described by CSIS, in the scenarios modeled in the war games, "The United States and its allies lost dozens of ships, hundreds of aircraft, and tens of thousands of servicemembers. Taiwan saw its economy devastated. Further, the high losses damaged the U.S. global position for many years." ⁴¹

CSIS did not assess the potential impacts of a nuclear confrontation between China and the United States, but it is safe to say that a nuclear exchange at any level would have catastrophic consequences for all parties to the conflict, from civilians in the conflict zone to military personnel on both sides of the war.

The best route to preventing a Chinese invasion of Taiwan is to revive the 'One China' policy – which calls, among other things, for China to commit itself to a peaceful resolution of the question of Taiwan's status, and for the U.S. to forswear support for Taiwan's formal independence and maintain only informal relations with the Taiwanese government. That approach has kept the peace in the Taiwan Strait for five decades. ⁴² But both the U.S. and China have taken numerous steps in the past few years that have called this understanding into question.

What is needed now is a meeting of the minds between Washington and Beijing that involves a U.S. commitment to limit political interactions with Taiwan and to oppose any unilateral attempt in Taiwan to declare independence from China. This shift in U.S. policy would pave the way to an understanding in which China would forgo a timeline for unification and prioritize a strategy of peaceful unification over preparations for taking over the island by force. ⁴³ Both sides would reciprocally reduce military exercises by Taiwan's shores.

Point Five: Cooperation Between Washington and Beijing Is Essential to Solving the World's Most Urgent Problems

Meanwhile, there is an urgent need for the U.S. and China to work together. From climate change to pandemics to rebalancing the world economy, the U.S. and China have ample areas where cooperation is not only advisable, but in some cases essential to promoting a peaceful, secure, and stable world. These urgent tasks cannot and should not be subordinated to policies of bellicose rhetoric and misguided military competition.

Thankfully, there at least appears to be a shift in rhetoric and an openness to better communications between the two rivals. As expected, the November 15, 2023 direct talks

⁴¹ Cancian, M.; Cancian, M.; Heginbotham, E. (2023, January 9). *The First Battle of the Next War: Wargaming a Chinese Invasion of Taiwan. Center* for Strategic and Intelligence Studies. https://www.csis.org/analysis/first-battle-next-war-wargaming-chinese-invasion-taiwan

⁴² Swaine, M. (2023, February 27). *The Worrisome Erosion of the One China Policy.* The National Interest. https://nationalinterest.org/feature/worrisome-erosion-one-china-policy-206253

⁴³ Swaine, M. (2023, February 27).

between President Biden and Chinese President Xi Jinping failed to reach any major agreements or to resolve any of the major challenges facing the two nations. But their commitments to more regular communications at the military-to-military and leadership level were worthwhile outcomes. The meeting also yielded a Chinese pledge to crack down on companies that have been selling fentanyl precursor chemicals to producers in Mexico, and beginning discussions on how to deal with the risks posed by the potential use of artificial intelligence to direct conventional and nuclear weapons.⁴⁴

Prior to the Biden-Xi meeting, there were U.S.-Chinese discussions of the consequential issues of climate change and arms control. The question now is whether the two nations follow up on such promises with concrete actions.

On arms control, the fact that the United States and China are talking at all marks a significant shift. Areas of common concern like nuclear risk reduction and better communication could be fruitful to pursue in the short-term, before tackling tough questions like the relative size and capabilities of the nuclear arsenals of the two nations, the nature of future plans, and detailed agreements about how to handle emerging technologies like artificial intelligence with respect to the nuclear sphere.⁴⁵

In an effort to develop a more comprehensive approach to improving relations between the United States and China, a recent Quincy Institute issue brief has outlined a new framework referred to as "common good diplomacy" which is based on a more nuanced approach to the challenges posed by Beijing. ⁴⁶ This approach would entail distinguishing between constructive and counterproductive Chinese initiatives rather than assuming ill intent in every case. Differences would be dealt with through negotiation rather than harsh rhetoric and confrontation, and areas of potentially beneficial cooperation, from addressing climate change to cooperating on development of the global south, would be pursued. ⁴⁷

The most urgent area that requires much deeper cooperation is climate change. The statement that came out of the recent U.S.-China climate meeting included commitments to "methane reduction, helping triple renewable electricity capacity globally . . . and restarting the U.S.-China Energy Efficiency Forum." Hopefully this will be the start of a new period of engagement on the issue that will spark more comprehensive action.

Chatham House.

⁴⁴ Hunnicutt, T.; Mason, J. (2023, November 15). *Takeaways – Biden and Xi Meeting: Taiwan, Iran, Fentanyl and AI.* Reuters.

https://www.reuters.com/world/takeaways-biden-xi-meeting-taiwan-iran-fentanyl-ai-2023-11-16/

45 Messmer, M.; Lewis, P. (2023, November 9). *China-U.S. Talks Offer Optimism at Bleak Time for Arms Control.*

https://www.chathamhouse.org/2023/11/china-us-talks-offer-optimism-bleak-time-arms-control ⁴⁶ Werner, J. (2023, September 14). *Common Good Diplomacy: A Framework for Stable U.S.-China Relations.* Quincy Institute for Responsible Statecraft.

https://quincyinst.org/report/common-good-diplomacy-a-framework-for-stable-u-s-china-relations/

⁴⁷ Werner, J. (2023, September 14)...

⁴⁸ Shidore, S. (2023, November 16). *U.S. China Climate Win Good for Relations and the Planet.* Responsible Statecraft. https://responsiblestatecraft.org/biden-xi-climate/

The U.S. and China are the world's largest emitters of greenhouse gasses – accounting for 40% of total global emissions between them – but they are also seeking to make major investments in clean energy and other initiatives to address the problem.⁴⁹

For its part, the Biden administration has overcome opposition in Congress to push through a \$370 billion investment in reducing greenhouse gas emissions over a ten-year period. It's short of what is needed to fully address the problem, but it is a substantial investment compared with past U.S. standards. But to really make progress in curbing the worst effects of the climate crisis, the United States and China need to collaborate. As Jonas Nahm has said,

"China is a world leader in the mass production of the technologies most needed to address the climate crisis by decarbonizing the electricity and transportation sectors. These low-carbon energy technologies (LCETs) include wind turbines, solar panels, electric vehicles, and lithium-ion batteries, which are crucial for electric cars and on-grid storage." ⁵¹

While greater U.S. investment in green technologies is urgently needed, producing them at levels adequate to rapidly reduce carbon emissions will require working with China, which has the capacity to produce such technologies at scale.

As the two largest emitters, the U.S. and China can set an example for other nations and promote more ambitious global targets for reductions in greenhouse gasses, as noted by Kelly Sims Gallagher: "Actions speak louder than words, and if the United States and China are reducing emissions, other countries will, too." ⁵²

Conclusion

Spending hundreds of billions of dollars in an attempt to maintain across-the-board military dominance tied to a strategy for "winning" a war with China is as misguided as it is dangerous.

The economic, diplomatic, and human rights challenges posed by China will not be solved by an arms race, and in some cases they would be made worse. Increasing U.S.

⁴⁹ Nahm, J. (2020, September 18). *Why We Can't Solve the Climate Crisis Without China*. Quincy Institute for Responsible Statecraft.

https://quincyinst.org/2020/09/18/why-we-cant-solve-the-climate-crisis-without-china/

⁵⁰ International Energy Agency. (2023, April 26). *Inflation Reduction Act of 2022*. https://www.iea.org/policies/16156-inflation-reduction-act-of-2022

⁵¹Nahm, J. (2020, September 18). *Why We Can't Solve the Climate Crisis Without China*. Quincy Institute for Responsible Statecraft.

https://quincyinst.org/2020/09/18/why-we-cant-solve-the-climate-crisis-without-china/

⁵² Sims Gallagher, K. (2020, September 18). Green Cooperation, Green Competition. Quincy Institute for Responsible Statecraft. https://quincyinst.org/2020/09/18/green-cooperation-green-competition/

military pressure on Beijing would not lead to reduced repression of the Uyghur population in Xinjiang province, or greater freedom for Hong Kong, or limits on China's nuclear forces.

Progress on these fronts will require skilled diplomacy coupled with selective international pressure that can only be effective if Beijing feels it has a stake in the relationship. A militarized approach simply will not work in addressing these genuine issues.