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The U.S.-China Balance of Power: Part II

In Part I of this report, we provided a comprehensive overview of how China and the U.S. see their key interests and goals. We believe those understandings will have a big impact on how the two sides compete with each other in the coming decades. In Part II this week, we provide a head-to-head comparison of U.S. and Chinese military power. In the following weeks, Part III will examine the relative economic power of the two sides. Part IV will describe their diplomatic positions around the world. Finally, Part V will dive into the opportunities and threats for U.S. investors.

To compare two military powers, you need to resolve many issues. For example, should you compare only the two countries' own forces? Or should you also count the forces of any allies that might fight with them? If so, should you discount the allies' forces because of problems like limited joint training or domestic political concerns that might make them reluctant to fight? Our method will focus on the two sides' total national forces, on the assumption that even though a U.S.-China conflict would probably be fought in the waters off China's coast, assets currently deployed in theaters such as Europe or northwestern China could theoretically be brought to bear on the fight if needed. For each country, we first discuss the overall resource base available to support military forces. We then discuss the

quantity and quality of each country's land, sea, air, space, and cyber forces.

Chinese Military Power

The U.S. Department of Defense, in its "[2020 China Military Power Report](#)," shows Chinese President Xi Jinping has directed the People's Liberation Army (PLA) to transform itself into a "world-class military" by 2049. China is therefore flooding the PLA with resources and attention, boosting its capabilities to the point where it is now ahead of the U.S. in key areas.

Resource Base. A country's potential military power ultimately derives from the size and quality of its population, economy, industrial base, and technological skillset. From that standpoint, China has the advantage of being the world's most populous country. The United Nations Population Division estimates that China's population in 2020 stood at approximately 1.4 billion people, including a military-age population (ages 16-49) of 696 million. Adjusted for the purchasing power of its currency, China's economy is also the largest in the world. According to the International Monetary Fund, China's gross domestic product (GDP) had a value of \$24.2 trillion last year versus U.S. GDP of \$20.8 trillion. China's large and varied land mass provides it with a range of natural resources. In addition, its rapid economic development, [forced or illicit technology transfers](#), and [espionage](#) over the years have given it formidable technological resources. China's "[military-civilian fusion](#)" [policy \(led personally by President Xi](#) as chairman of the Central Commission for Military-Civil Fusion Development) ensures that the

private sector’s industrial capacity, technological discoveries, data, and intelligence are shared seamlessly with the military in order to make it more powerful.

Order of Battle. An exhaustive list of all Chinese military assets is beyond the scope of this report. The discussion below merely highlights China’s key assets by service as well as the current modernization and readiness efforts for each service, based mostly on the Defense Department’s latest “China Military Power Report.”

🇺🇸 **Naval Forces.** Since a U.S.-China war would likely be fought in the waters around China, tracking China’s naval strength is critical. In numerical terms, China’s navy is now the largest in the world, with an overall battle force of some 350 ships and submarines, including more than 130 major surface combatants. Reflecting the potential for a major naval war with the U.S. and the growing need to project Chinese power globally, the PLA has invested heavily in its navy. It now mostly consists of modern, multi-role vessels with advanced anti-ship, anti-air, and anti-submarine weapons and sensors, rather than the obsolete, limited-capability coastal defense ships of old. China’s investment in naval modernization and readiness will soon allow it to conduct long-range precision strikes against land targets using cruise missiles launched from a range of vessels, greatly boosting its power projection capability and [giving it a true “blue water navy.”](#)

- In 2019, China commissioned its first domestically built aircraft carrier, the [Shandong](#), based on the design of its Soviet-built [Liaoning](#). Both carriers use a ski-jump aircraft launching system, but [other domestic carriers](#)

due to enter service starting in 2023 will use modern catapult-launch systems to support more aircraft and faster flight operations. China also [plans to develop nuclear-powered carriers, eventually deploying two carrier strike groups in the Western Pacific and two in the Indian Ocean.](#)

- China is buying more amphibious assault ships, which could be used to invade Taiwan or other coastal areas. It is also building a fleet of modern submarines. It now operates four [nuclear-powered ballistic missile subs \(SSBNs\)](#), with two new hulls fitting out, as well as six nuclear-powered attack subs (SSNs) and 46 diesel attack subs (SSs).
- Finally, China is [developing a network of surveillance buoys and undersea sensors in the South China Sea and other sensitive waters](#) that it could use to help deny access to U.S. ships and submarines in time of war.

🇺🇸 **Air Forces.** With over 2,500 aircraft (excluding trainers and drones), of which 2,000 are combat aircraft, China’s [army air force](#) and [naval aviation](#) together constitute the largest air force in the Indo-Pacific region. China’s 2019 defense white paper says the air force’s mission and tasks are transitioning from “territorial air defense” to “offensive and defensive operations.” Its commander has tasked the service to develop a truly “strategic” capability that can project power at long range. The Defense Department believes China “is rapidly catching up to Western air forces” as it takes delivery of more modern, domestically built planes and drones.

- Most of China’s 1,500 operational fighters are modern fourth-generation or above, including 24 [Su-35 fighters](#) bought from Russia in 2016. China has also deployed limited numbers of its domestically built fifth-generation [J-20 fighter](#). Development continues on the smaller FC-31/J-31 for export or for the next generation of Chinese aircraft carriers.
- China’s bomber force consists of variants of the Soviet Tu-16 “Badger.” The bomber force is relatively old, but China continues to produce modernized versions integrating standoff weapons and more efficient engines for greater range. The recently revealed [H-6N](#), which is capable of air-to-air refueling and can carry nuclear weapons, will again give China a triad of nuclear delivery options, i.e. land launched, submarine launched, and air launched. Its H-20 subsonic stealth bomber, which is still under development, [will eventually give China the ability to strike U.S. bases in Guam, Japan, and even Hawaii](#).
- Of critical importance in a potential confrontation with the U.S. in the Taiwan Strait, the Chinese have one of the world’s largest forces of advanced, long-range surface-to-air missile systems (SAMs). Along with long-range, state-of-the art S-400 and S-300 systems from Russia, the Chinese are also developing their own advanced SAMs and anti-ballistic missile defenses.

🌟 **Ground Forces.** The PLA has the world’s largest standing ground force, with approximately 915,000 active-duty troops in combat units. Perhaps because

of the greater likelihood of a naval war with the U.S. and the need to prioritize a blue-water navy, modernization and readiness in China’s ground forces have advanced relatively slowly. Vehicle and weapons upgrades have been proceeding, but just as much emphasis has been placed on building up flexible, more lethal combined-arms brigades at lower echelons and introducing more intense and realistic training.

🌟 **Strategic Rocket Forces.** China is working intensively to modernize its “strategic deterrent” forces. It launched more ballistic missiles for testing and training in 2019 than the rest of the world combined. It is introducing new static and road-mobile inter-continental ballistic missiles (ICBMs) capable of carrying multiple independently targeted reentry vehicles (MIRVs). As a result, the number of warheads on Chinese land-based ICBMs capable of threatening the U.S. is expected to grow to approximately 200 by 2025.

- In 2020, a defense expert and former high-level PLA colonel at Beihang University insisted that China’s vast network of ICBM tunnels and safe bastions for its SSBNs [ensure that enough of its nuclear weapons would survive a U.S. first strike to launch a credible counterattack](#).
- China also continues to build its inventory of modern, nuclear-capable intermediate-range ballistic missiles (IRBMs). China’s conventional rocket force includes many mobile ground-launched short-, medium-, and intermediate-range ballistic missiles and ground-launched cruise missiles to supplement its air- and sea-launched precision strike

capabilities. Its new weapons include cutting-edge hypersonic missiles.

🇺🇸 ***Space and Cyber Forces.*** The PLA’s Strategic Support Force (SSF) is responsible for China’s strategic space, cyber, electronic, and psychological warfare efforts. Reporting directly to the Central Military Commission, its primary target is the U.S. Establishment of the SSF reflects Beijing’s belief that “achieving information dominance and denying adversaries use of the electromagnetic spectrum is necessary to seize and maintain the strategic initiative in a conflict.”

- The ***Network Systems Department*** carries out and coordinates all of China’s information warfare missions, including cyberwarfare, technical reconnaissance, electronic warfare, and psychological warfare. It is instrumental in China’s military strategy to [establish local dominance in the information, maritime, and air domains](#). It also carries out missions and tasks related to the PLA’s “Three Warfares” concept (undermining an adversary through psychology, public opinion, and legal warfare). It works to shape foreign perceptions, weaken the enemy’s will to fight, and craft diplomatic and political narratives to advance China’s interests globally.
- The ***Space Systems Department*** is responsible for all PLA space operations, including space launch and support, space surveillance, satellite communications, and space warfare. The department aims to assist in future conflicts by enabling long-range precision strikes and denying adversaries the use of space assets. Overall, China put more than

70 spacecraft into orbit in 2019. Its constellation of BeiDou-2 and BeiDou-3 communications and navigation satellites will now allow China to end or reduce its reliance on the U.S. GPS system. China is also focused on the development of heavy lift vehicles that could support lunar and interplanetary exploration, while the PLA continues to develop counterspace capabilities such as kinetic-kill missiles, ground-based lasers, and orbiting space robots.

U.S. Military Power


Assuming our readers are familiar with the U.S. military, we won’t go into detail on it here. We will merely focus on the key assets that would have the most impact on a U.S. conflict with China.

Resource Base. Although the U.S. has just a fraction of the billion-plus populations of China and India, its 330 million people still rank it third in the world, well ahead of countries such as Indonesia (271 million) and Japan (127 million). The U.S. military-age population of 148 million is only about one-fifth the size of China’s, but it is growing by some 600,000 per year, while China’s is falling by 9 million. The enormous, dynamic, well-diversified U.S. economy also provides plenty of industrial and financial support for the armed forces, while its world-leading universities and scientific institutions provide a technological edge. Of course, the U.S. also has vast domestic natural resources and depends relatively little on foreign technology and materials (key exceptions include certain semiconductors, which now come mostly from Asia, and “rare earth” minerals, most of which come from China).


Order of Battle. In contrast with China, which is only now transitioning its military

from defense of the homeland to power projection, the U.S. order of battle reflects a decades-long commitment to global hegemony. The U.S. has deep interests all over the world, and a large, expensive military to protect them. Interestingly, however, the [U.S. National Defense Strategy](#) of 2018 (which remains in effect today) puts its greatest emphasis on modernizing higher technology domains like nuclear forces and space rather than the naval and air forces that would be an important part of a U.S.-China conflict.

 **Naval Forces.** Facing China's 350 ships, the U.S. battle force of 293 ships would lag badly if not for its composition. Ever since World War II, fixed-wing aircraft carriers have been the centerpiece of U.S. naval forces. With their strike groups, nuclear-powered carriers allow for forward offensive operations and power projection globally. Today's U.S. roster of 10 Nimitz-class and two future Gerald R. Ford-class carriers are the largest battleships in the world. In addition, the country would be able to apply its large roster of destroyers and advanced submarines.

 **Air Forces.** With over 13,000 aircraft, including approximately 8,000 combat aircraft, the U.S. is the world's strongest air power. The U.S. has a large and growing roster of [fifth-generation fighters like the F-22 and F-35](#) as well as large inventories of modernized older-generation multirole fighters like the [navy's F/A-18](#) and the air force's F-15E and F-16C. Those aircraft are complemented by a large number of conventional and nuclear-armed bombers, helicopters, tankers, airlift, and

other assets that provide offensive firepower, reconnaissance, and mobility.

 **Ground Forces.** The U.S. Army currently has about 480,000 active-duty troops, supplemented by a large number of troops from the Navy's Marine Corps. The force includes thousands of modern battle tanks, armored vehicles, artillery pieces, and other assets that could be brought to a U.S.-China conflict using the country's highly capable air and sea transport assets.

 **Strategic Rocket Forces.** The U.S. [nuclear triad](#) left over from the Cold War includes ground-based ICBMs (the Minuteman III), submarine-launched ballistic missiles carrying MIRVs (the Trident II), and nuclear-capable long-range bombers (including the B-52H and the B-2A). In theory, all these assets would be available as a final resource in a U.S.-China conflict. Modernization of the U.S. strategic nuclear force is a major focus of the 2018 National Defense Strategy.

 **Space and Cyber Forces.** Not only has the U.S. created a new [Space Command](#) to conduct military operations "in, from, and to" space, but it is also investing to make U.S. space and cyberwarfare assets more resilient and capable. U.S. space and cyberwarfare assets range from satellites to missile defense apparatus. The defense strategy also prioritizes enhancement of the U.S. systems for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) as well as cutting-edge autonomous systems such as artificial intelligence and machine learning.

Military Balance of Power: China vs. USA

Selected Indicators

Sources: UN, IMF, U.S. Dept. of Defense, WDMMA.org, GlobalFirepower.org, Bull. Of Atomic Scientists

Asset	China	USA	Advantage
Resource Base			
Total Population (Millions, 2020)	1,439.3	331.0	China
Military-Age Population (16-49, Millions, 2020)	695.9	148.1	China
Average Annual Growth Rate, Last Five Years	-1.3%	0.4%	USA
Gross Domestic Product (Trillion \$ PPP, 2020)	24.2	20.8	China
Average Growth Rate, Real, Last Five Years	5.7%	0.9%	China
Foreign Military Bases (2018)	1	514	USA
Likely/Potential Allies *	0	>=4	USA
Naval Forces			
Total Battle Force	350	293	China
Major Surface Combatants	133	103	China
Fixed-Wing Aircraft Carriers	2	11	USA
Cruisers	1	22	USA
Destroyers	32	70	USA
Frigates	49	0	China
Corvettes	49	0	China
Submarines	56	68	USA
Ballistic Missile Submarines	4	14	USA
Nuclear Attack Submarines	6	50	USA
Other Submarines	46	4	China
Coastal Patrol (Missile)	86	22	China
Amphibious Landing Ships	58	33	China
Air Forces			
Fixed-Wing Aircraft	1,995	5,020	USA
Fighters	1,517	2,269	USA
Bombers and Close Air Support	150	466	USA
Transports	224	946	USA
Special Mission Aircraft	104	1,339	USA
Helicopters	925	5,417	USA
Attack (Multi-Role, Gunship, Anti-Sub, etc.)	348	4,012	USA
Transports	152	910	USA
Other	425	495	USA
Rockets (Launchers; Missiles May Be Greater)	848	640	China
ICBM (Range > 5,500 km)	100	400	USA
SLBM (Range > 5,500 km)	48	240	USA
IRBM (Range 3,000 to 5,500 km) **	200	0	China
MRBM (Range 1,000 to 3,000 km) **	150	0	China
SRBM (Range 300 to 1,000 km) **	250	0	China
GLCM (Range > 1,500 km) **	100	0	China
Land Forces			
Active-Duty Personnel in Combat Units ***	915,000	480,000	China
Main Battle Tanks	6,300	8,370	USA
Other Armor Vehicles	35,000	40,000	USA
Artillery Pieces	6,300	2,840	China

Notes

* Assumes U.S. allies would include at least Japan, Australia, New Zealand, and India.

** U.S.-Russia INF Treaty banned U.S. from developing these; treaty abrogated in 2019.

*** U.S. combat ground forces figure includes only U.S. Army, excludes U.S. Marines.

Putting It All Together

As Kissinger wrote in *A World Restored*, “The balance of power is the classic expression of the lesson of history that no order is secure without physical safeguards against aggression.” As discussed above, U.S. weapon inventories and personnel are no longer sufficient to provide a sure bulwark against Chinese military aggression in the Western Pacific. China’s economic heft and military power are already overwhelming compared with its neighbors. In some types of weapons, China has now also developed a clear advantage over the U.S. The Trump administration’s declassified [Indo-Pacific Strategy](#) even admitted the U.S. could no longer assume military dominance in the seas between China and the “first island chain” running from Borneo through the Philippine and Japanese archipelagos to the Kuril Islands.

The weapons systems and organizational units available to the U.S. and China are only part of the military balance of power. Doctrine, strategy, operational concepts, coordination, readiness, training, and other “soft skills” also have an impact. In a near-term conflict, which would most likely be fought in the South China Sea or East China

Sea, China would also have a formidable home-field advantage. That advantage is already evident in China’s success in building up its anti-access/area denial (A2/AD) capabilities in those seas. Many observers now doubt that U.S. naval or air forces could safely operate in those waters in time of war. Moreover, China’s doctrine of “active defense,” which combines strategic defense with offensive attacks at the operational and tactical levels, would likely lead it to [attack U.S. bases in Guam, Japan, and throughout the Indo-Pacific area](#).

The greatest risk for the U.S. might be that it could lose one or more capital ships, such as an aircraft carrier and its crew of 5,000 sailors. Faced with such a loss for the first time since World War II, a U.S. president might be tempted to fall back on the one area where the U.S. retains undisputed superiority—launching a nuclear strike against China. Fortunately, in Part III of this report next week, we’ll look at a less scary aspect of these two countries’ power when we explore their relative economic power.

Patrick Fearon-Hernandez, CFA
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