

## **The Nuclear Awakening of China**

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### **Abstract**

The People's Republic of China, one of the biggest military presences in the world, has been rapidly expanding its once modest nuclear arsenal. This article will explore these developments and attempt to explain why China may be expanding its arsenal by looking at motivations arising from international conflicts. The article discusses the history of China's nuclear weapons program, the current efforts to modernize its warheads, and the possible factors that may have spurred this development. The findings in this article showcase how Chinese territorial disputes with its neighboring countries, as well as possible nuclear tensions with the United States, are likely motivating China to improve its nuclear weapons program. Additionally, there is evidence that they are broadening their nuclear capabilities to become a leading nuclear power like the United States and Russia.

Although widely seen as an international military superpower, The People's Republic of China kept a notoriously small nuclear arsenal throughout most of its history. In recent decades, however, the country has been developing its land, air, and sea-based nuclear armaments. China is expanding its nuclear arsenal in response to recent advancements in American military technology and a need to project power around its neighboring countries.

### **History of China's Nuclear Arms Program**

Since its conception in 1949, the People's Republic of China has kept a limited nuclear arsenal. To date, the country only possesses 290 nuclear bombs and no tactical weapons, making it one of the smallest nuclear arsenals of the major world powers (Davenport & Reif, 2019). China also keeps a relatively small collection of RAM-type launchers for land-based missiles and bombers for air-based missiles. Moreover, unlike the United States and Russia, China does not keep nuclear warheads on nuclear launchers during peacetime and has a *No First Use Policy*, which dictates that China will only use a nuclear bomb in response to a nuclear strike. These factors suggest that China created a nuclear weapons program merely to display the country's military prowess and diplomatic credibility, as well as deter nuclear harassment from other countries. The size of China's nuclear capabilities may also be attributed to its unending amount of manpower. Chairman Mao Zedong was confident that the size of his country could adequately defend from any possible nuclear attack, famously stating, "I'm not afraid of nuclear war. ... China has a population of 600 million; even if half of them are killed, there are still 300 million people left" ("China's nuclear", 2019). In an interview with an American journalist, he further expounds upon this idea, saying "The atom bomb is a paper tiger which the U.S. reactionaries use to scare people. It looks terrible, but in fact it isn't. Of course, the atom bomb is a weapon of mass slaughter, but the outcome of a war is decided by the people, not by one or two new types of weapon.." ("Talk with American", 1946). Since then, nearly every Chairman of the People's Republic has kept a small nuclear force until Chairman Jinping. Under Jinping's administration, the Chinese nuclear triad made significant growth in the past two decades. The following sections will detail China's current plans to update its nuclear weapons and attempt to explain why China is developing its nuclear arsenal.

### **Current Efforts to Modernize**

China is making strides in its 'nuclear triad' by diversifying its nuclear capabilities across land, sea, and air. Since the early 2000's, China has been developing new land based inter-continental ballistic missiles, nuclear-powered ballistic missile submarines, and heavy bombers. Solid-fueled, road-mobile missiles such as *Dong Feng* (DF) class missiles are the newest and most impressive addition to China's land-based arsenal. The latest version of these silo-based missiles, the DF-41, has a range of 15,000 km, can hold up to eight warheads, and has survivability thanks to its mobility ("How", 2019). The DF-41 could potentially release the equivalent of 1 Megaton of TNT ("Dong Feng-41 (Dong Feng-41 / CSS-5)", 2019). China has roughly between 60-200 DF-21 missiles ("Dong Feng-21 (Dong Feng-21 / CSS-5)", 2019) and 25 DF-31 missiles deployed ("Dong Feng-41 (Dong Feng-41 / CSS-5)", 2019).

The Nation's ballistic missile-equipped submarines (similar to American SSBNs) and attack submarines are also being modernized. The *Xia*, a Jin-class submarine, is the only operational Chinese SSBN currently in use and are considered to be technologically primitive, as they are relatively noisy and therefore can be located easily (Farnsworth & Tamerlani & Taylor & Timothy, 2013). The Chinese submarines currently deployed are equipped with JL-2 missiles,

at-sea ballistic missiles (SLBM) that have a range of 8,000-9,000 km and are generally seen as less capable than American and Russian SLBMs, which have a greater range (Goldstein & Erickson, 2019). However, China is building five new Jin-class ballistic missile submarines that can hold 24 Julang-3 (JL-3) missiles, which is comparable to American and Russian SLBMs (*China makes*, 2018).

Furthermore, China plans to bolster its once low-priority air-based delivery systems. The Chinese Air Force is currently developing a new bomber plane, the H-6K. The H-6K bomber is able to carry up to ten cruise missiles with a range of 2,000 kilometers, and deliver the payload to a total range of 5000 kilometers. Additionally, Beijing may be seeking to develop a stealth bomber called the H-20 (Mizokami, 2020). This bomber is similar in design to the American B-2 bomber, and may be ready to deploy as early as 2025.

### **Possible Factors for Expansion**

The Chinese government officially states that its efforts to increase its nuclear arsenal are to strengthen its security (“China's Military”, 2015). However, many other factors may have influenced the sudden expansion. In recent decades, China has found itself in various international disputes. Tensions between the United States and China may have incentivised the nation to match the nuclear prowess of America. Additionally, China is also attempting to expand its borders, which has resulted in a number of territorial conflicts with other countries, such as the South China Sea dispute with the Philippines. The nation may be building its nuclear arsenal to defend or dissuade an attack from one of its competitors.

American defense behavior has clearly impacted China’s military desires. Chinese government officials were alarmed when President George W. Bush pulled out of the 30-year-old Anti-Ballistic Missile Treaty in 2002. Once the United States withdrew from the agreement, the country could develop missiles that could overpower China’s nuclear arsenal. Their suspicions were correct; the Bush administration and the following presidential administrations continued to heavily invest in missile defense systems. Recently, Chinese experts have taken particular interest in new American long-range missiles that can hit any target across the globe within an hour (*China's nuclear*, 2019). With such a weapon, American forces could easily decimate China’s collection of nuclear warheads and launchers. It is clear that China is aware of the nuclear climate and understands that the United States is fully capable of destroying its nuclear arsenals. Thus, American nuclear efforts may have motivated China to develop new long-range missiles so the nation can counter such an attack. The newest line of the DF missile, the DF-41, is capable of hitting American soil from China within an hour (*China's nuclear*, 2019). China is also preparing for a possibility of a American-Chinese nuclear conflict in it’s own backyard: The South China Sea.

Territorial disputes in the South China Sea have incentivized China to expand its naval nuclear capabilities. Three countries currently claim large sections of the South China Sea: the Philippines, Vietnam, and China. In July of 2016, the Permanent Court of Arbitration at The Hague ruled that China was operating illegally in Philippine territory in the South China Sea. In the court’s holding, they state that China has historically not had an exclusive claim to the region and that the country is actively “interfering with Philippine fishing and petroleum exploration” (“The South China Sea”, 2016, p.2). China has ignored the court’s ruling and continues to operate in the region. (Territorial, n.d.). This comes as no surprise, as absolute control of the South China Sea would come with a multitude of benefits.

The South China Sea is a resource-rich area and is estimated to hold around 190 trillion cubic feet of natural gas and 11 billion barrels of untapped oil, worth around \$6 trillion (Territorial, n.d.). The islands located in the Sea also contain fishing areas and other natural resources estimated at around. With the South China Sea, China can amass around \$5 trillion from trade and control one third of the world's cargo that passes through the South China Sea. With this trade advantage, China may also be able to restrict trade to countries. Additionally, control of the South China Sea holds a significant military advantage. Satellite imagery shows that China is creating and increasing the size of islands in the sea, as well as constructing ports, airstrips, and other military facilities on them (Territorial, n.d.). All of these factors suggest that the South China Sea is of great economic and strategic value to China.

China is clearly ready to defend its claim in the South China Sea as the nation recently conducted naval exercises in the area in April of 2018. The United States also has a significant military presence in the South China Seas to protect its security, political, and economic interests (Territorial, n.d.). China clearly views American influence in the region as its biggest threat. Thus, the country has been developing the JL-3 missile, which supposedly rivals the capabilities of missiles carried by American submarines and surface ships deployed in the South China Sea (Chan & Huang, 2019). With these weapons, China will be ready to retaliate against or discourage an attack from America and the other nations who disagree with China's illegal claims. The development of these weapons indicates a possible arms-race between China and the United States, and that China aims to achieve a strong nuclear triad in its effort to become a major nuclear power.

America is not the only nuclear threat concerning China. China has played an active role in the India-Pakistan nuclear conflict. China sees India as a concern, as the two nations have a territorial dispute at the Indo-Sino border. This has led China to supply aid to Pakistan, India's largest nuclear rival. China provided funding and weapon designs to Pakistan until the mid-1990's (Burr, 2004). Today, they still sell nuclear delivery vessels, such as submarines, to Pakistan (Hundley, 2018). This alliance may also suggest that China would send military support to Pakistan if the nation were to go to war with India.

China's support of Pakistan's nuclear ambitions may be attributed to the territorial conflicts between China and India. Specifically, both countries claim a large land mass in eastern Kashmir called Aksai Chin. Despite being uninhabitable, Aksai Chin is strategically important to the Chinese occupation of Tibet. In the region, the Chinese have built a highway to transport troops from Xinjiang to Tibet (Basrur, 2019). The construction of this highway sparked a violent conflict between India and China in 1962 and since then, China has completed the highway with little interference.

Tibet is a crucial component of Chinese imperialism. Like the South China Sea, China wants Tibet for its strategic geographical location. With Tibet under Chinese control, China can reach the rest of Eurasia more readily, especially India. Tibet also has a lucrative mining industry and plentiful water sources which may be of interest to China (Why, 2008). The emphasis on Chinese control of Tibet may be the reason they have been increasing their military presence in the region and growing their collection of land-based nuclear weapons.

As China's influence in Aksai Chin and Tibet grows, the more likely China will protect its claim on the territory. There is a possibility of nuclear conflict over the region as violent attacks between the two countries have plagued the region for decades. The most recent attack in 2019 was a bombing conducted by Islamic Militants that sparked both sides to conduct a number of air strikes in Pakistan and Indian-controlled Kashmir (Yusuf, 2019). Both Pakistan and India

have been refining their nuclear weapons should the conflict in Kashmir become worse. China may be inclined to produce land-based missiles to defend its claim on Aksai Chin. As previously discussed, China is developing a number of powerful short-ranged land missiles, some of which were deployed in China's western provinces as recently as 2010 (Kristensen, 2010). This may signify that China is anticipating the risk of going to nuclear war with India, or is planning to use nuclear weapons as a means of deterring India from attacking.

### **Conclusion**

China's territorial expansion and tense relationship with the United States and its neighboring countries have made the possibility of nuclear war a very real threat. In response to these perceived international threats, China has been substantially expanding its nuclear capabilities. Although this may seem like a reasonable response to the current international climate, China should be cautious of how other countries perceive their efforts to bolster its nuclear weapons program. China's competitors, such as the United States and Russia, could interpret this development as a threat and act accordingly by developing weapons to counter the new Chinese nuclear weapons.

References

- Basrur, Rajesh (2019) India and China: A Managed Nuclear Rivalry?, *The Washington Quarterly*, 42:3, 151-170, DOI: [10.1080/01636660X.2019.1666354](https://doi.org/10.1080/01636660X.2019.1666354)
- Burr, William (2009, March 4). "China, Pakistan, and the Bomb: The Declassified File on U.S. Policy, 1977-1997." Retrieved from [nsarchive2.gwu.edu/NSAEBB/NSAEBB114/index.htm](https://nsarchive2.gwu.edu/NSAEBB/NSAEBB114/index.htm).
- Chan, M., & Huang, K. (2019, February 7). Is China about to drop its 'no first use' nuclear weapons policy? Retrieved from <https://www.scmp.com/news/china/military/article/2184577/could-china-abandon-its-no-first-use-nuclear-weapons-policy>
- China makes 'big progress' with new submarine-launched ballistic missile. (2018, December 20). Retrieved from <https://www.scmp.com/news/china/military/article/2178983/china-makes-big-progress-nuclear-strike-range-new-submarine>
- China's Military Strategy (full text). (2015, May 27). Retrieved from [http://english.www.gov.cn/archive/white\\_paper/2015/05/27/content\\_281475115610833.html](http://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.html)
- China's nuclear arsenal was strikingly modest, but that is changing. (2019, November 21). Retrieved from <https://www.economist.com/china/2019/11/21/chinas-nuclear-arsenal-was-strikingly-modest-but-that-is-changing>
- Davenport, K. & Reif, K. (2019, July). Fact Sheets & Briefs. Retrieved from <https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>

DF-21 (Dong Feng-21 / CSS-5) (2020, January 2). Retrieved from

<https://missilethreat.csis.org/missile/df-21/>.

DF-31 (Dong Feng-31 / CSS-10) (2019, October 8). Retrieved from

<https://missilethreat.csis.org/missile/df-31/>.

DF-41 (Dong Feng-41 / CSS-X-20) (2019, October 8). Retrieved from

<https://missilethreat.csis.org/missile/df-41/>.

Goldstein, Lyle J. & Erickson, Andrew S. & Naval War College (U.S.) Center for Naval Warfare

Studies. (2005). *China's nuclear force modernization*. Newport, R.I : Naval War

College, <http://www.usnwc.edu/Publications/Naval-War-College-Press/Newport->

Papers.aspx

Hundley, Tom (2018) India and Pakistan are Quietly Making War More Likely. *Vox*

How is China modernizing its nuclear forces? (2019, December). Retrieved from

<https://chinapower.csis.org/china-nuclear-weapons/>

Kristensen, H. M. (2010, September 28). DF-21C Missile Deploys to Central China. Retrieved

from <https://fas.org/blogs/security/2010/09/df21c/>

Mizokami, K. (2020, January 22). Explained: Everything You Want to Know About China's

Nuclear Weapons. Retrieved from <https://nationalinterest.org/blog/buzz/explained->

[everything-you-want-know-about-chinas-nuclear-weapons-83376](https://nationalinterest.org/blog/buzz/explained-everything-you-want-know-about-chinas-nuclear-weapons-83376)

Permanent Court of Arbitration. (2016, July 12). Retrieved from

<https://docs.pca-cpa.org/2016/07/PH-CN-20160712-Press-Release-No-11-English.pdf>

Rajagopalan, Rajeswari Pillai. "Why China's Growing Military Might in Tibet Should Worry

India." *The Diplomat*, The Diplomat, 3 Mar. 2020, [thediplomat.com/2020/03/why-](http://thediplomat.com/2020/03/why-)

[chinas-growing-military-might-in-tibet-should-worry-india/](http://thediplomat.com/2020/03/why-chinas-growing-military-might-in-tibet-should-worry-india/).

Territorial Disputes in the South China Sea (n.d). Retrieved from

<https://www.cfr.org/interactive/global-conflict-tracker/conflict/territorial-disputes-south-china-sea>

Taylor, Tamerlani & Farnsworth, Timothy (2013). Pentagon Sees China Progressing on SLBM.

*Arms Control Today. Arms Control Association.*

*Tse-tung, M., & Strong, L. (2004). Talk with the American Correspondence Anna Louise Strong.*

Retrieved from [https://www.marxists.org/reference/archive/mao/selected-works/volume-4/mswv4\\_13.htm](https://www.marxists.org/reference/archive/mao/selected-works/volume-4/mswv4_13.htm)

Why is remote Tibet of strategic significance? (2008, March 25). Retrieved from

<https://www.reuters.com/article/us-tibet-strategic/factbox-why-is-remote-tibet-of-strategic-significance-idUSSP2305020080325>

Yusuf, M. W. (2019, May). Arms Control Today. Retrieved from

<https://www.armscontrol.org/act/2019-05/features/pulwama-crisis-flirting-war-nuclear-environment>



