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Nuclear Deterrence and the US–China Strategic Relationship

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Ever since the United States dropped the first atomic bomb on Japan in 1945, countries have had to consider the impact of nuclear weapons on their security and stability more broadly. Nuclear weapons were central to the great power competition between the United States and the Soviet Union. The US–Soviet nuclear balance relied on ‘a very high degree of mutual vulnerability’,¹ in which peace was maintained through both sides’ belief that the other could inflict widespread destruction. In the late 1960s, the nuclear stockpiles of both powers numbered in the tens of thousands, but mutual reductions were gradually achieved through a series of arms control agreements and initiatives.

But there are several reasons to suspect that the nuclear dynamics between the US and China are different from those that existed between the Soviet Union and the US during the Cold War. For one, China’s approach to nuclear weapons is fundamentally different from the US and Soviet approaches of assured destruction capability.² Instead, China’s policy of

1 Elbridge Colby, ‘The Role of Nuclear Weapons in the US–Russian Relationship’, Carnegie Endowment for International Peace, 26 February 2016, carnegieendowment.org/2016/02/26/role-of-nuclear-weapons-in-US-russian-relationship-pub-62901.

2 M. Taylor Fravel and Evan S. Medeiros, ‘China’s Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure’, *Quarterly Journal: International Security* 35(2), 2010, 48–87. doi.org/10.1162/ISEC_a_00016.

assured retaliation with a no-first-use pledge, designed to deter nuclear attack and coercion, reduces the strategic importance of nuclear weapons in the bilateral relationship.³

The great power nuclear relationship also impacts US allies differently. European countries are committed to collective defence, but no North Atlantic Treaty Organization – style construct exists between US allies in Asia. Additionally, key US European allies such as France and the United Kingdom have their own nuclear capabilities while Asian allies rely exclusively on the US to deter nuclear attack against their countries.

This chapter evaluates the role that nuclear deterrence plays in the US–China strategic relationship. It lays out the pathways to conflict and the implications for nuclear use, evaluates how allies influence nuclear dynamics (the conditions under which nuclear weapons would most likely be used and how) and explores how escalation to nuclear conflict may affect US allies in the region depending on their level of involvement in the contingency. In doing so, it highlights that, when it comes to nuclear use, there is a sizeable difference between what is possible (the operational realities) and what is plausible (the strategic logic behind potential use).

Pathways to Conflict and Implications for Nuclear Deterrence

In the near term, the most likely situation that could spark a US–China war is a contingency over Taiwan. This is also the most plausible scenario for nuclear use because of Taiwan's importance to both China and the US, and US commitments for involvement. The Chinese Communist Party (CCP) is primarily concerned about maintaining power. If the US shifted strategies to proactively undermine the regime by arming and training separatists or protestors in Xinjiang, Tibet, Hong Kong or Taiwan, for example, this could lead to protracted war between the two sides. Additionally, if a war occurred and the US refused to negotiate a peace unless the Communist Party gave up power, such a scenario would almost

3 Fiona S. Cunningham and M. Taylor Fravel, 'Dangerous Confidence? Chinese Views on Nuclear Escalation', *International Security* 44(2), 1 October 2019, 61–109, doi.org/10.1162/isec_a_00359; M. Taylor Fravel and Fiona Stephanie Cunningham, 'Assuring Assured Retaliation: China's Nuclear Posture and US–China Strategic Stability', *International Security*, Fall 2015, hdl.handle.net/1721.1/101390.

certainly escalate to the nuclear level even if Taiwan were not directly involved. China could theoretically also change its nuclear doctrine to threaten nuclear use even at low levels of conventional war to make up for conventional shortcomings, or to strengthen its deterrent against US nuclear use.

However, a comprehensive analysis of Chinese military writings by Fiona Cunningham and M. Taylor Fravel suggests that China is not motivated to shift to an offensive posture for several reasons, including its confidence that nuclear deterrence will hold. In their words:

China's strategists believe that the interests at stake would be too low in any US–China scenario for either side to create risks of nuclear escalation. Moreover, China's no-first-use policy means that only the United States would escalate to the nuclear level, which is unlikely, given its conventional military superiority over China.⁴

Because it is generally uncontroversial that a US attempt to overthrow the communist regime or a Chinese shift to an offensive nuclear doctrine would increase the likelihood of nuclear use, this chapter develops a typology to help understand the relative risks of nuclear war in more plausible conflict scenarios.

Reactive versus Proactive Pathway to Conflict

Since 1996, analysts have mainly been concerned with a pathway to conflict in which Beijing perceives a need to *respond* to a situation. In this scenario, Taipei or Washington crosses a red line that precipitates conflict, such as a declaration of independence from Taiwan. For example, the Third Taiwan Strait Crisis originated in part with an explicitly political speech given by Taiwanese President Lee Tung-hui at his alma mater, Cornell University. The speech and the Taiwanese president's visit to the US angered the Chinese leadership and led to the People's Republic of China (PRC) conducting threatening missile tests in and near the Taiwan Strait. Similarly, China passed the Anti-Secession Law in 2005 in response to the rise of a Taiwanese separatist movement. The law declared Taiwan

⁴ Fravel and Cunningham, 'Assuring Assured Retaliation', 10.

a part of China and indicated that the CCP supported unification by force. As the Chinese Ministry of Defence clearly stated on 28 January 2021: 'Taiwan independence means war'.⁵

China's red lines on Taiwan are ambiguous; therefore, analysts also worry that policies designed to strengthen cross-strait deterrence could push Beijing over the brink. For example, Bonnie Glaser argues that 'a US security guarantee for Taipei ... might even provoke a Chinese attack'.⁶ If strategic ambiguity was abandoned, Beijing might choose to act immediately, believing that the US is least likely in the short term to mount a credible defence. Alternatively, Taipei could be emboldened to risk military conflict if it had no doubt that the US would come to its defence. A credible, but not unconditional, security guarantee is therefore the gold standard for deterrence. Critics of US arms sales to Taiwan apply a similar logic: arms sales run the risk of either provoking China or giving Taiwan dangerous confidence.⁷ However, while recent high-level visits between US and Taiwanese officials undoubtedly triggered Chinese ire, they stopped short of being destabilising.

Impressive Chinese military modernisation, the US's failure to build robust coalitions to counter Chinese regional aggression and Xi Jinping's personal ambition coalesce to create a situation in which Chinese leaders may see some aggregate benefit to using force. Therefore, an equally, if not more, plausible pathway to conflict is that Beijing will launch a military operation to force 'reunification', irrespective of Washington's or Taipei's policies or actions.⁸ In this scenario, Xi Jinping will use force to compel Taiwan to unite with the mainland once he is confident of the Chinese military's ability to succeed in relevant joint operations, especially an amphibious attack.

5 Wang Feng, ed., 'Transcript of the Regular Press Conference of the Ministry of National Defence in January 2021', Department of Defence Network, 28 January 2021, www.mod.gov.cn/shouye/2021-01/28/content_4878245.htm [in Chinese].

6 Bonnie S. Glaser et al., 'Dire Straits: Should American Support for Taiwan Be Ambiguous?', *Foreign Affairs*, 24 September 2020, www.foreignaffairs.com/articles/united-states/2020-09-24/dire-straits.

7 A. Trevor Thrall and Jordan Cohen, 'Time to Rethink Arms Sales to Taiwan', Cato Institute, 2 November 2020, www.cato.org/commentary/time-rethink-arms-sales-taiwan.

8 Oriana Skylar Mastro, 'The Taiwan Temptation', *Foreign Affairs* (July/August 2021), 1–10.

While military balances and outcomes of military operations are notoriously hard to assess and predict, China's military has made significant strides in its ability to conduct joint operations in recent years. China's massive military reform program, which Xi launched shortly after coming to power in 2012, aims to transform China's military into a 'fully modern' force by 2027.⁹ Senior Colonel Ren Guoqiang, a spokesperson for China's Ministry of National Defence, has claimed:

China has basically completed the national defence and military reform of the leadership and command systems, scale, structure and force composition, which promoted the joint operations of the Chinese military to a new stage.¹⁰

On 7 November 2020, the People's Liberation Army (PLA) revised its strategic guidelines, for only the fifth time in its history, to incorporate this new focus on joint operations.¹¹

Because of these reforms and the modernisation of Chinese equipment, platforms and weapons, China may now be able to prevail in cross-strait contingencies even if the US intervenes in Taiwan's defence. China's improved anti-access/area denial capabilities and its strides in cyber and artificial intelligence also contribute to the weakening of cross-strait deterrence. In the words of Michèle Flournoy: 'In the event that conflict starts, the United States can no longer expect to quickly achieve air, space, or maritime superiority'.¹² As Beijing hones its spoofing and jamming technologies, it may be able to interfere with US early warning systems and thereby keep US forces in the dark. Worryingly, other analysts have concluded that Chinese interference with satellite signals is only likely to grow more frequent and sophisticated.¹³ China also possesses offensive

9 Liu Caiyu, 'China's Centennial Goal of Building a Modern Military by 2021 in Alignment with National Strength: Experts', *Global Times*, 31 October 2020, www.globaltimes.cn/content/1205238.shtml.

10 Li Wei, ed., 'Guidelines on PLA Joint Operations (Trial) Aim for Future Warfare: Defense Spokesperson', *China Military Online*, 26 November 2020, eng.chinamil.com.cn/view/2020-11/26/content_9943059.htm.

11 Qiao Nannan, ed., 'With the Approval of the Chairman of the Central Military Commission Xi Jinping, the Central Military Commission Issued the "Outline of Joint Operations of the Chinese People's Liberation Army (Trial)"', *Xinhua News Agency*, 13 November 2020, www.mod.gov.cn/topnews/2020-11/13/content_4874081.htm [in Chinese].

12 Michèle A. Flournoy, 'How to Prevent a War in Asia: The Erosion of American Deterrence Raises the Risk of Chinese Miscalculation', *Foreign Affairs*, 18 June 2020, www.foreignaffairs.com/articles/united-states/2020-06-18/how-prevent-war-asia.

13 Todd Harrison et al., 'Space Threat Assessment 2020', Center for Strategic and International Studies, 30 March 2020, www.csis.org/analysis/space-threat-assessment-2020.

weaponry, including ballistic and cruise missiles, which, if deployed, could destroy US bases in the Western Pacific in days.¹⁴ Finally, the US intelligence community warns:

China has the ability to launch cyber attacks that cause localised, temporary disruptive effects on critical infrastructure—such as disruption of a natural gas pipeline for days to weeks—in the United States.¹⁵

Gradual versus Rapid Approaches

In addition to the reactive/proactive dichotomy, China has a variety of military options in forcing Taiwan's unification with the mainland. According to an authoritative Chinese text,¹⁶ there are four main campaigns for which China is preparing:

1. joint firepower strike operations against Taiwan (大型岛屿联合火力突击作战)
2. joint blockade operations against Taiwan (大型岛屿联合封锁作战)
3. joint attack operations against Taiwan (大型岛屿联合进攻作战)
4. joint anti-air raid operations (联合反空袭作战).¹⁷

The first scenario would consist of the PLA employing missile and air strikes to disarm Taiwanese targets. The second scenario would consist of the PLA employing tactics ranging from cyber attacks to naval surface raids to cut Taiwan off from the outside world. The third scenario would presumably follow the successful completion of the first two scenarios and would involve an amphibious assault on the island. The last scenario is specifically designed to counter American forces deployed in the region.

14 Renanah M. Joyce and Brian Blankenship, 'Access Denied? The Future of US Basing in a Contested World', *War on the Rocks*, 1 February 2021, warontherocks.com/2021/02/access-denied-the-future-of-u-s-basing-in-a-contested-world/.

15 Daniel R. Coats, 'Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community', Office of the Director of National Intelligence, 29 January 2019, www.dni.gov/files/ODNI/documents/2019-ATA-SFR---SSCI.pdf.

16 '战役学' [The Science of Campaigns], 国防大学 [National Defence University], 2006, michalthim.files.wordpress.com/2015/12/the-science-of-campaigns-e68898e5bdb9e5ada6-2006.pdf.

17 Ian Easton, 'China's Top Five War Plans', Project 2049 Institute, accessed 14 September 2021, project2049.net/wp-content/uploads/2019/01/Chinas-Top-Five-War-Plans_Ian_Easton_Project2049.pdf.

Many analysts think that the most likely scenario is one of graduated escalation, in which China starts with lower-level coercive options, only escalating if Taiwan does not capitulate.¹⁸ This strategy reduces the likelihood of US and allied involvement, but is risky. PLA strategists understand that if the US has time to amass forces in the region, the likelihood of victory drops considerably. If prevailing in spite of US intervention is the main consideration, China is more likely to move quickly to the highest level of violence that the scenario requires to force Taiwan's capitulation to Beijing's demands before the US can intervene.¹⁹ If China's objective in the scenario is unification (versus punishing Taiwan or compelling a reversion to the status quo) and it expects US intervention, it could even pre-emptively hit US bases in the region to cripple Washington's ability to respond.

Because of the aforementioned capabilities, many US experts are concerned with a *fait accompli*—a scenario in which China takes Taiwan before even the most resolved US could act decisively. Recent war games jointly conducted by the Pentagon and RAND Corporation have shown that a military clash between the US and China over Taiwan could result in a US defeat, with China completing an all-out invasion in a matter of days.²⁰

A Typology of Nuclear Deterrence

The impetus and nature of the war from China's perspective will greatly determine whether the countries involved will move up the escalation ladder and the options for de-escalation. These scenarios focus on the conditions under which Beijing would consider using nuclear weapons and assume that China would only consider nuclear use if it was unable to achieve its goals through conventional means.²¹

18 Linda Jakobson, 'Why Should Australia Be Concerned About ... Rising Tensions in the Taiwan Straits?', China Matters Explores, *China Matters*, February 2021, chinamatters.org.au/policy-brief/policy-brief-february-2021/.

19 Samson Ellis, 'Here's What Could Happen If China Invaded Taiwan', *Bloomberg*, 7 October 2020, www.bloomberg.com/news/features/2020-10-07/here-s-what-could-happen-if-china-invaded-taiwan.

20 Daniel L. Davis, 'Can America Successfully Repel a Chinese Invasion of Taiwan?', *National Interest*, 6 August 2020, nationalinterest.org/blog/skeptics/can-america-successfully-repel-chinese-invasion-taiwan-166350.

21 This is for analytical purposes, and not meant to suggest that the US will prevail in all contingencies against the modernised PLA.

Table 3.1: Typology of Nuclear Deterrence

	Reactive	Proactive
Gradual escalation	High cost of peace— MODERATE risk	Maximum flexibility—LOW risk
Rapid escalation	Point of no return—HIGH risk	High cost of peace— MODERATE risk

Escalatory dynamics will be harder to manage if Beijing feels like it is reacting to unfavourable changes in the status quo. For example, if Taiwan declares independence, Beijing will fight until Taiwan renounces independence. If a successful US intervention threatens this goal, Chinese leadership may consider escalating to the nuclear level to avoid losing Taiwan. The US could do a number of things to create this impression: for example, effectively destroying Chinese military capability so that, at a certain point, Beijing will not be able to continue fighting; or successfully implementing a compellence campaign, such as strangling Beijing economically, so that the leadership feels like its options are capitulation or escalation.²²

Escalatory dynamics will also be harder to manage if Beijing pursues a rapid escalation of military force. There are two reasons for this. First, there are fewer rungs on the escalatory ladder between the current level of force being used and nuclear use. This constrains the options available to leaders short of nuclear use. Second, China has more deniability regarding objectives with coercive campaigns than an amphibious assault. In the former scenario, if things do not go as planned, the Chinese leadership could argue that its goal was to ‘teach Taipei a lesson’; in other words, use of force itself is enough to demonstrate success to the Chinese people. However, the visual of hundreds of ships making their way across the strait suggests an attempt at unification by Beijing, especially in the case of an ongoing crisis.

22 A point of emphasis: US strategists have articulated the concern that miscalculation and misunderstanding about US intentions towards China’s nuclear capability in particular could provoke a nuclear war. Caitlin Talmadge, ‘Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States’, *International Security* 41(4), Spring 2017, 50–92, doi.org/10.1162/ISEC_a_00274. But there is nothing in Chinese nuclear strategy, doctrine, training or modernisation that suggests Beijing would use tactical nuclear weapons tactically (it has none) or do so pre-emptively, even if it feared a US attack on its strategic capabilities.

Even with an amphibious assault, Chinese leaders have some off-ramps if they want to avoid escalation. Xi would likely be cautious about what he publicly promises in order to give himself flexibility. As long as the US does not push for Taiwan's independence as part of the war termination agreement, Beijing can accept half-measures. One option, for example, is to seize some Taiwanese-controlled islands that China also claims, such as Matsu, Pratas, Itu Aba or Quemoy/Kinmen. But the point here is that there are more drivers of escalation than of de-escalation if Beijing skips some low-level options to a high-intensity option early on.

In this proactive scenario, the US is less likely to offer enticing off-ramps. There will be the sense in Washington that China needs to be punished for taking offensive action, and for the war to be worthwhile, the US needs to be in a better overall position at the end of it. US leaders may want a war termination settlement that sufficiently punishes Beijing for this action and reinstates deterrence—likely by demanding concessions on Taiwan's political status that Beijing will not make. In this scenario, Beijing's tendency for disproportionate escalation will come to the fore, bringing about an end to the war on its terms.²³ China would start by increasing the costs on US military forces in the region; if that did not work, they would consider civilian targets in the US. However, due to range limitations (China has limited conventional options for hitting the US homeland),²⁴ this is more likely through non-traditional means like cyber or counterspace attacks. This is one of the few scenarios in which the leadership may consider using nuclear weapons, although in the author's view they would not do so.²⁵

Thus, nuclear deterrence is most likely to hold if Beijing chooses a gradual escalation approach in an attempt to revert to a more favourable status quo. The most dangerous scenario is one in which Beijing is compelled to respond to an action taken by Taipei or Washington and does so by implementing the highest-intensity military option.

23 Oriana Skylar Mastro, 'How China Ends Wars: Implications for East Asia and US Security', *Washington Quarterly* 41(1), 2018, doi.org/10.1080/0163660X.2018.1445358.

24 David C. Gompert, Astrid Struth Cevallos and Cristina L. Garafola, *War with China: Thinking Through the Unthinkable* (Santa Monica: RAND Corporation, 2016), www.rand.org/content/dam/rand/pubs/research_reports/RR1100/RR1140/RAND_RR1140.pdf.

25 Oriana Skylar Mastro, 'The United States Must Avoid a Nuclear Arms Race with China', Cato Institute, 21 September 2020, www.cato-unbound.org/2020/09/21/oriana-skylar-mastro/united-states-must-avoid-nuclear-arms-race-china.

Allied Contributions in a Taiwan Scenario and Implications for Nuclear Deterrence

The degree and nature of allied and partner contributions in a Taiwan contingency are of great debate in Washington as well as in capitals around the region. Countries in the region may directly contribute forces to engage with Chinese forces or varying degrees of base access, with most analysts thinking Australia and Japan are likely to contribute the most in both categories.²⁶

It is beyond the scope of this chapter to articulate the conditions under which allies and partners are likely to contribute to the war effort. Based on the author's conversations with allied government officials—in particular, detailed discussions in Canberra in December 2019 and March 2021—allies are most likely to contribute if Beijing has proactively used force and at a high-intensity level. There are several reasons for this logic. First, the level of violence determines the degree to which Beijing attacks the US. It will be difficult for allies to remain neutral if Beijing attacks US bases or regional assets, especially if the surprise attack occurs before the US has declared war on China. Second, such a move on the part of Beijing may heighten threat perceptions within these countries, inspiring a domestic political cry to punish and constrain such dangerous behaviour in the region. Third, if Beijing takes this proactive, high-intensity approach, it will be more difficult for politicians in the region to argue that the scenario is another US 'war of choice' in which they can avoid entanglement without threatening their alliance relationships with the US and the future role of the US in the region.

The main question of this contribution is: how will allied contributions influence nuclear deterrence and escalation? First and foremost, the prospect of allied involvement is the greatest deterrent against a proactive Chinese use of force. China's grand strategic goal of rejuvenation is most at risk if a long-term countervailing coalition forms against it. Avoiding actions that could spark such a coalition has been the central feature of Chinese competitive strategy. If deterrence fails, allied involvement still increases the costs of escalation to both Beijing and the US, thereby decreasing the likelihood of escalation to the nuclear level.

26 Sheena Greitens and Zack Cooper, 'What to Expect from Japan and Korea in a Taiwan Contingency', Nonproliferation Policy Education Center, February 2021, t.co/bfQSKZRaYE?amp=1.

For the allies, there is a trade-off. Their involvement will reduce the likelihood that the conflict will escalate to the nuclear level. But allied involvement, in the form of base access or contributing military forces, increases the likelihood that they will become a military target. Indeed, there is little doubt that Beijing would target US bases hosted in other countries or allied military forces directly involved in a contingency. What exactly allies are contributing, and the impact these contributions may have on the US-led military effort, could influence the Chinese strategic calculus. For example, if a country contributes both bases and forces, China may attack forces first; the ally might then retreat from the conflict, before China escalates to attacking bases within the allied country itself. On the other hand, US base access may have more of an operational impact on its ability to fight and prevail than the direct military engagement of allies. If military trends are not going in China's favour, its leadership may prioritise bases as the target to limit the US's ability to operate from those sites and coerce host countries to retract their permissions. But, even in terms of bases, the US would rely on certain bases more than others given functional and geographic constraints. For example, the US has three air force bases, three army bases and five naval facilities in Japan, all of which are located in geographic proximity to the Taiwan Strait.²⁷

Could Beijing target US allies supporting US operations with nuclear weapons? It is operationally possible but strategically highly implausible that Beijing would target US allies with nuclear weapons.

Technically, China could attack any regional actor with nuclear weapons. Over the past 20 years, China has been industriously modernising its nuclear forces. Currently, Beijing's nuclear arsenal is estimated to number in the two-hundreds, and the Pentagon anticipates that the stockpile will double over the next 10 years.²⁸ China also added a sea leg to its nuclear deterrent in 2016 with the introduction of submarine-launched ballistic

27 'US Military Bases in Japan', Military Bases (blog), accessed 12 February 2021, militarybases.com/overseas/japan/.

28 Office of the Secretary of Defense, 'Military and Security Developments Involving the People's Republic of China 2020', United States Department of Defense, 2020.

missiles (JL-2) on its *Jin*-class ballistic missile submarine. China reportedly recently completed the final leg of the triad with the H-GN bomber, which is nuclear-capable and able to be refuelled in midair.²⁹

Additionally, China is producing ballistic missile systems with multiple independently targetable re-entry vehicle and manoeuvrable re-entry vehicle technologies that enhance missiles' effectiveness. To this end, China launched more ballistic missiles for testing and training in 2019 than the rest of the world combined.³⁰ The Chinese military has increased the number of ballistic missile brigades by around a third in the past three years to enhance its nuclear strike capabilities amid escalating tensions with the US and to prepare for a possible war against Taiwan.³¹ Meanwhile, the PLA's new hypersonic cruise missiles are supposedly capable of piercing existing missile defence systems.³² One Beijing-based military source reported that the PLA deployed its most advanced hypersonic missile, the DF-17, to the area.³³

China's Possible Use of Nuclear Weapons

Chinese use of nuclear weapons against US allies is operationally possible. However, such a move makes little strategic sense. If China does use nuclear weapons, there are a number of reasons the US, not its allies, would be the target.

First, China pledges no nuclear use against non-nuclear states (such as US allies in Asia). Authoritative Chinese writings on nuclear doctrine are vague about targeting, listing adversary cities, infrastructure and soft military targets without any specific target countries.³⁴ They describe

29 Joe Gould, 'China Plans to Double Nuclear Arsenal, Pentagon Says', *DefenseNews*, 1 September 2020, www.defensenews.com/congress/2020/09/01/china-planning-to-double-nuclear-arsenal-pentagon-says/.

30 Office of the Secretary of Defense, '2019 Missile Defense Review', United States Department of Defense, 19 January 2019, www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-Review/The%202019%20MDR_Executive%20Summary.pdf.

31 Minnie Chan, 'China Boosts Nuclear Strike Capability in Face of Growing Rivalry with US, Report Says', *South China Morning Post*, 11 December 2020, www.scmp.com/news/china/military/article/3113639/china-boosts-nuclear-strike-capability-face-growing-rivalry-us.

32 Richard Stone, '"National Pride Is at Stake": Russia, China, United States Race to Build Hypersonic Weapons', *Science*, 8 January 2020, www.sciencemag.org/news/2020/01/national-pride-stake-russia-china-united-states-race-build-hypersonic-weapons.

33 Chan, 'Chinese Military Beefs Up Coastal Forces'.

34 I would like to thank Fiona Cunningham for this point.

only one campaign for the use of China's nuclear forces: the 'nuclear counterstrike campaign' (核反击战役). The main component of this campaign corresponds to China's no-first-use doctrine—in other words, China would only execute a nuclear strike after it had been attacked with nuclear weapons. The posture of China's forces (which includes relatively small numbers of intercontinental ballistic missiles and the separate storage of warheads) and its training to launch on attack and not on warning, are consistent with a singular campaign intended to launch only a retaliatory strike.³⁵

Developments in 2019 indicate that China intends to increase its peacetime readiness nuclear posture from launch on attack to launch on warning, casting doubt upon the no-first-use policy.³⁶ However, there are no indications that its commitment not to use nuclear weapons against non-nuclear states is in question.³⁷ In other words, if China is going to use nuclear weapons, its doctrine encourages use against the US homeland, not the territory of its allies.

Second, there are operational trade-offs between targets.³⁸ The US and China do not have a mutually assured destruction relationship. Their nuclear relationship is highly asymmetric. The US has 5,800 nuclear warheads; it is estimated China will have 200 only after a significant building program. China also has limited delivery options (approximately 30 launchers), possessing only a few intercontinental ballistic missiles that can reach the US.³⁹

Using nuclear weapons against US allies would be less influential in terms of the US's willingness and ability to continue fighting than using them against the US homeland. But such a move could precipitate the use of nuclear weapons against the Chinese homeland. The US provides a nuclear umbrella for allies through an extended deterrence guarantee—or the

35 Fravel and Cunningham, 'Assuring Assured Retaliation'.

36 Office of the Secretary of Defense, 'Military and Security Developments'.

37 吴隼思 [Wu Chunsi, Researcher at Shanghai Research Institute of Global Issues], '核安全峰会、全球核秩序建设与中国角色' [Nuclear Security Summit, Global Nuclear Order and the Role of China], *International Security Research* 33(02), 2015, 56–57; Xuequan Mu, 'Nuclear Deterrence Targeting Non-Nuclear States a Sign of Hegemonism: Chinese Ambassador', *Xinhua*, 16 May 2019, www.xinhuanet.com/english/2019-05/16/c_138061422.htm.

38 The author would like to thank Fiona Cunningham for highlighting this factor.

39 The silo-based CSS-4 Mod 2 (DF-5A) and MIRV-equipped Mod 3 (DF-5B); the solid-fuelled, road-mobile CSS-10-class (DF-31, DF-31A and DF-31AG); and the DF-41, which is still in production. See, 'DF-5', Missile Threat, last modified 2 August 2021, missilethreat.csis.org/missile/df-5-ab/.

reassurance that nuclear action against allies would trigger a US response. Additionally, given the PRC's current operational warhead stockpile and launchers, there would be a numbers trade-off with inflicting unacceptable retaliation on the US and attacking US allies. For example, the Chinese nuclear-tipped missiles that could strike Australia (DF-31, 31A, 41, JL-2 and perhaps DF-4) are the same as those that bring US territory into range. Using its nuclear weapons against allies would thus undermine its deterrent against the US.

As Beijing increases its arsenal, the trade-off may decrease in severity, but it will still significantly discourage nuclear use against US allies given that asymmetry in US nuclear dominance will remain. If the PRC has already absorbed a damage-limiting US strike, the opportunity cost of striking an allied versus a US target would be particularly high. There is also an opportunity cost in the training and targeting realm. China is focused on deterring US nuclear use, and for a nuclear counterstrike campaign, it is unclear how flexible the strategic rocket force can be to change approaches and targets.

Third, China's ability to threaten the US and its allies with conventional weapons in the region is significant. After three decades of focused military modernisation, China now has one of the most advanced and largest militaries in the world. China has many options to inflict massive harm on regional countries through non-nuclear means: through employment of traditional air, naval or sea power; through having the most advanced cruise and ballistic missile program in the world; through grey-zone activities that leverage militias and law enforcement forces such as the coastguard; or through cyber, space or electronic warfare.

This means that China has many options for military coercion short of nuclear use. The potential economic costs alone have caused many leaders in the region to question the degree to which they would support the US. Manila, for example, has considered ending its Visiting Forces Agreement with Washington as a result of deepening economic ties between the Philippines and China, largely fuelled by Belt and Road Initiative investments from the latter. While the agreement with the US was ultimately maintained, this incident demonstrates that Beijing clearly has increasing influence. In short, Beijing can likely convince countries to withdraw their support with conventional threats and means alone. Chinese actions also suggest that its military is not thinking about

nuclear weapons as a coercive, signalling tool—indeed, Chinese nuclear operational doctrine lacks any clear plans for limited nuclear use and the strategic rocket force lacks tactical nuclear weapons.⁴⁰

In most contingencies, even over Taiwan, the prospects for nuclear use are extremely low, with the highest risk being a situation in which Beijing chooses to respond with a high level of force to a perceived attack on its interests. Allied involvement would further decrease the likelihood that either side will cross the nuclear threshold. Admittedly, the more involved and critical allied support is, the more likely it is those countries' military forces and territory could become a target for military attack. But Chinese doctrine and force posture all point to the US as the target for a 'nuclear counterattack' campaign. A nuclear attack on allied forces or territory makes little sense from a strategic perspective.

There are many factors that allies would have to consider when deciding how much to support the US in a contingency against Taiwan. How would the choice impact the relationship with the US? What is the likelihood that the US would prevail without support? What are the most operationally effective (political) and feasible (demanded) forms of support? How is Beijing likely to respond both in wartime and after the conflict is over? What will the region look like after these decisions have been made and the conflict plays out? While these factors create a complex decision space, this chapter suggests that there is little need to fear nuclear retaliation as one of the primary considerations.

40 Cunningham and Fravel, 'Dangerous Confidence?'

This text is taken from *Alliances, Nuclear Weapons and Escalation: Managing Deterrence in the 21st Century*, edited by Stephan Frühling and Andrew O'Neil, published 2021 by ANU Press, The Australian National University, Canberra, Australia.

doi.org/10.22459/ANWE.2021.03