The Korean Journal of Defense Analysis
Vol. 35, No. 2, June 2023, 277－292
DOI: https://doi.org/10.22883/kjda.2023.35.2.006

Beijing's Impending "Nuclear Brinkmanship" to Deter a U.S. Intervention in a Taiwan Crisis

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In a perfectly harmonious situation of a stability/instability paradox, American intervention in a Taiwan invasion by the PRC wouldn't lead to escalation from conventional to nuclear level as the two levels are hermetically separated under the conditions of the paradox. However, a stability–instability paradox can only create escalation controls provided there are robust firebreaks between the two levels. No First Use (NFU) policy is generally touted as a robust firebreak. This article argues that the PRC's inferiority in the conventional level *vis-à-vis* the United States has for some time influenced Beijing to erode the robustness of its NFU to make stability–instability untenable in order to deter aggression against its national interests by exploiting what Thomas Schelling calls "threat that leaves something to chance." Using the chance factor, Beijing will resort to nuclear brinkmanship in order to expose the United States of shared risk caused by the unpredictability of Beijing's threat to keep Washington off a Taiwan crisis.

Keywords: nuclear brinkmanship, China, Taiwan, United States, nuclear strategy

Introduction

The ongoing Russia–Ukraine war provides many lessons. But for the People's Republic of China (PRC), Russia's usage of "nuclear saber–rattling" to deter/blunt Western intervention in the conflict will be of the greatest interest. With credible nuclear *brinkmanship*, China could gain greater confidence in pulling super ambitious strategic moves in the South China Sea and the East China Sea; and create conditions for conventional warfare in order to seize strategic objectives *vis-à-vis* her regional challengers.

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ISSN 1016-3271 print, ISSN 1941-4641 online

http://www.kida.re.kr/kjda

It is important to emphasize that Taiwan is a priority strategic objective for Beijing. In order to successfully reunite Taiwan through a military invasion, it is crucial for Beijing that the United States stays out of the conflict. To meet this objective, Beijing is attempting to expand the role of its nuclear forces from pure "deterrence" to *projected* "war fighting," which is reflected in the new strategic systems the PRC is acquiring and evidential changes in its nuclear doctrine and operating posture. In simple terms, Beijing is increasingly relying on bringing down its nuclear threshold to prevent the prospect of a conventional war. Elbridge Colby, former U.S. Assistant Secretary of Defense to the Trump Administration and a known PRC hawk, is of the view that the threat of nuclear weapons could create compulsions for the United States to stay away from the local conflicts between China and American allies in the first island chain, including Taiwan.[1] This study will focus on the question of why Beijing would have to rely on a low nuclear threshold to deter an American intervention in order to constrain the scope of any potential Taiwan invasion in its favor.

Theoretical Framework

This article advocates that the PRC is significantly bringing down its nuclear threshold to deter a U.S. intervention in a potential PLA invasion of Taiwan because its conventional deterrence will fail to deter Washington. To build its case, the article will draw its arguments from Thomas Schelling's concept of the "threat that leaves something to chance" and "brinkmanship." Using these two concepts, the article argues that Beijing will resort to nuclear brinkmanship to expose the United States of shared risk caused by the unpredictability of Beijing's threat over which it will have no control. Because of the unpredictability/chance factor, a U.S.–PRC conventional war over the Taiwan crisis could deliberately get somewhat out of hand. Beijing hopes that deliberately exposing Washington to a shared calamity will keep the United States off the Taiwan crisis.

Debates around Chinese Nuclear Strategy

For a very long period, Mao Zedong and Deng Xiaoping's perspectives on these weapons of mass destruction (WMD) dominated Chinese strategic thought on nuclear weapons. They saw nuclear weapons as largely political instruments, more valuable for thwarting nuclear coercion than for achieving specific military goals in the heat of battle.[2] Their opinions are effectively represented in the PRC's No-First-Use (NFU) nuclear policy. After the test on October 16, 1964, Beijing issued a statement, "The Chinese Government hereby solemnly declares that China will never at any time or under any circumstances be the first to use nuclear weapons."[3]

Based on its nuclear strategy, China had always emphasized the need of having a small force, which required minimal flexibility since Beijing's goal was simple: to be able to destroy a limited number of cities after taking a first strike in order to deter an aggressor. For the PRC, a limited quantity of resilient weapons was sufficient to respond and do an enemy unacceptable harm. The PRC's ability to respond has therefore been Beijing's sole means of deterrence rather than the issue of nuclear parity with its enemy. Interpreting its focus on the assurance of retaliation and second-strike capability, M. Taylor Fravel and Evan S. Medeiros calls PRC's nuclear strategy as "assured retaliation."[4]

Yet, those who are relying on Beijing's NFU Doctrine as a reassurance that the PRC's modernization of its nuclear arsenal is aimed only at achieving credible *second–strike* capability, would find themselves unnerved if they read the People's Liberation Army Rocket Force's (PLARF) doctrinal work, the *Science of Second Artillery Campaigns*. The book very explicitly calls for *xietong* or "coordination" between conventional and nuclear forces to achieve "double deterrence" against powerful enemies. Only then, as the book reasons, stronger enemies could be successfully deterred from plotting a war in the first place because they would "worry about receiving a retaliatory attack that was difficult to bear."[5] At the heart of *xietong* is the role of PLARF whose responsibilities to achieve "double deterrence" are envisioned as:

> "China's strategic missile corps is an important means by which the supreme command can limit warfare, restrict conflict (*zhiyue zhanzheng*), prevent splitting [of the country] (*fangzhi fenlie*), and maintain peace; it is an effective nuclear means by which to level the playing field with stronger enemies, and as such, wielding of deterrence (*weishe yunyong*) is an important way (*tujing*) to achieve the aforementioned objectives."[6]

The book is replete with situations where Beijing *would* need to "lower the nuclear deterrence threshold" and thereby adjust its nuclear policy by threatening to launch nuclear weapons even if the enemy had not fired its nuclear arsenal first. The authors of the book write:

> "Lowering the nuclear deterrence threshold refers to a time in which a stronger military power with nuclear missiles relies on its absolute superiority in high-tech conventional weapons to conduct a series of medium-level or high-level air strikes and our side has no good methods to ward this off; the nuclear missile corps should, according to the orders of the supreme command, adjust our nuclear deterrence policy without delay, taking the initiative (*zhudong*) to implement a powerful nuclear threat, thereby blocking through coercion (*shezu*) the stronger enemy's sustained conventional air strikes against our side's important strategic targets (*yi fang zhongda zhanlu¨e mubiao*)."[7]

The authors then go on to describe four scenarios where strategic exigency demands PLARF to lower the nuclear threshold:

> "threat of conventional attack on nuclear facilities (nuclear power stations) in order to prevent the creation of catastrophic large-scale radiation leakage; threat of conventional attack against important strategic targets that would threaten the lives and safety of a broad swath of the people such as hydroelectric dams, etc. . .; the launching of medium level or high-level conventional attacks on our capital and other large cities, etc. that are political or economic centers;'. . . and 'sustained escalation of conventional war, with our side's strategic situation [becoming] extremely weak and our national safety and survival gravely threatened.'"[8]

What could be concluded from these excerpts is that the United States' superiority in conventional capabilities is driving the Chinese to rely more on their nuclear weapons arsenals.[9] Since conventional weapons have now assumed a deterrence role, China is trying to create more ambiguity in its NFU doctrine. According to analysts, Beijing is already operationalizing the doctrinal developments we discussed above. As part of its response to U.S. House Speaker Nancy Pelosi's Taiwan tour in August 2022, Beijing flaunted its DF (Dongfeng) 5B, DF-27, DF-16, and DF-15B intercontinental ballistic missile (ICBM) in the war games that were conducted near the waters of Taiwan.[10] As is well known, DF–series missiles are capable of carrying nuclear warheads, but of particular interest to all is the DF-5B ICBM that has a range of up to 9,321 miles, enabling it to reach North America.[11] Revealing the intention behind the parading, Yue Gang, a retired PLA colonel said, "It is aimed at warning the United States and its close ally Japan not to intervene in the Taiwan issue, reminding them Beijing has the most powerful weapon that could give [them] a deadly strike."[12]

The PRC's brinkmanship is much more influenced by Russia's nuclear saber–rattling against the United States and NATO forces after the invasion of Ukraine. "Putin's experience inspired Beijing that it's a workable strategy to stop the United States and Japan's possible intervention in a future Taiwan contingency," Yue opined.[13] Not stopping at that, PLARF had also elevated the alert levels of their missile bases as part of the exercise. Andrei Chang, editor-in-chief of the Canadian magazine *Kanwa Asian Defence,* interprets this as a signaling "very similar to Putin's nuclear deterrence tactics, but it's an unusual move in peacetime in areas across the Taiwan Strait."[14]

In addition, recent evidence of the PRC constructing a field of at least 119 underground silos for the launch of nuclear ICBMs in its northwesterly Gansu Province, as well as the incorporation of new penetration capabilities like Hyper Glide Vehicles (HGV), decoys, or Multiple Independently Targetable Reentry Vehicle (MIRVS) to counter the U.S. BMD systems, suggests that Beijing's nuclear strategy is in the process of evolving. The CCP maintains its commitment to the NFU. Pentagon's 2020 China Report, however, adds that by 2025, Beijing's ICBM arsenal would probably number 200, making it capable of posing a danger to the United States.[15] In a similar vein, the PRC is quickly enlarging and diversifying its nuclear armament, and according to predictions from the Pentagon for 2021, China's nuclear arsenal will probably number in the thousands by 2030.[16] Former U.S. Deputy Assistant Secretary

of Defense for China, Chad Sbragia claims that Beijing's move to rapidly increase its nuclear stockpile actually underscores a "move away from their historical minimum deterrence posture."[17]

The PRC's adoption of ballistic missile submarines (SSBNs) has, however, dramatically altered its force structure. Samuel D. Bell of U.S. Navy observes these changes as:

> "Historically, the 2nd Artillery (PLA Rocket Force or PLARF) has never possessed the technology or the ability to exchange nuclear blows with a superpower. The best-case scenario was a one-time, limited retaliatory strike. The no-first-use policy fits this limitation well, as it allows Beijing to utilize their nuclear forces effectively and reap the added public relations benefits. However, the new capabilities inherent in the SSBN will change that basic structure."[18]

Since the *Jin-class* SSBN has been included, there is a glaring capability and policy mismatch that may force Beijing to reconsider its NFU strategic plan. However, such a change will never take place in public, even if CCP pursues some sort of conditional NFU. Retired PLA General Pan Zhenqiang describes the relevance of the NFU policy which goes beyond strategic value for Beijing and says that the PRC values it culturally. "Change of the nuclear policy will tarnish its image in the non-nuclear weapon states, which China has [been] so consistently proud of," General Pan claims.[19]

Nonetheless, it begets the question as to why China has to resort to bringing down the nuclear threshold to deter U.S. intervention. Isn't Beijing's conventional deterrence enough to keep the United States off the Taiwan crisis? The answer lies in the many inadequacies of Chinese A2/AD that will fail to hold the U.S. military at bay while the PRC tries to establish air and sea command in the Taiwan Strait. In his book *Unrivaled*, Michael Beckley shows that the United States and its allies still retains considerable number of conventional advantages over the PRC in the first island chain.[20] With an impressive amount and diversity of evidence in support of his argument, Beckley demonstrates that United States has "five to ten times the net military assets of China and maintains a formidable containment barrier against Chinese expansion in East Asia."[21] The following section discusses the current balance of military power across the Taiwan strait in greater detail.

PRC's Achilles' Heel: Weak Conventional Deterrence against the United States

Many observers argue that because of China's military modernization efforts, the United States and its allies are rapidly losing their ability to dissuade Beijing by conventional means in the first island chain. Lonnie Henley of The George Washington University claims that the PLA has probably achieved the initial targets it had set

for a capability to invade Taiwan in 2020 itself.[22] Oriana Skylar Mastro of Stanford University argues quoting a senior spokesperson for China's Ministry of National Defense that the reforms the Chinese government carried at the level of "leadership and command systems, scale, structure and force composition, which promote(s) the joint operations" and the "modernization of Chinese equipment, platforms, and weapons," have enabled Beijing to set the stage for victory in "cross–strait contingencies even if the United States intervenes in Taiwan's defense."[23]

Scholars following this line contend that the Chinese anti-access/area-denial systems (A2/AD) are already strong enough to contain American forces in the first island chain. They base their case on two presumptions. The enormous Chinese onslaught against Taiwan's air and naval bases, missile batteries, and command centers will first result in Taiwan's A2/AD capitulating quickly. According to analysts, the PRC will be able to establish air and sea command in the Taiwan Strait if Taipei's air defenses and offensive forces fail in the face of the PLA's combat-ready advanced fighter planes and 1,500 precise missiles targeted towards the island.[24] Second, according to these pessimistic assessments, Beijing may prevent U.S. military operations by launching offensive cyberattacks and launching precision-guided weapons from trucks and small ships located on or nearby PRC territory.[25] Analysts indicate Beijing will be able to counteract Washington asymmetrically by using these low-cost systems to restrict American military air and sea control in close proximity to Chinese land.[26]

There are huge gaps in the articulation of each of these presumptions. First, there is an overemphasis on the improbable prospect of a crippling Chinese sneak strike that will entirely surprise Taiwan. This scenario predicts that a wholly unprepared Taipei will lose the majority of its missile batteries, planes, and ships. Taiwan will submit without having been informed in advance of the PLA onslaught. But in truth, Taiwan has one of the strongest early warning systems in the world, giving the government there considerable advance warning.[27]

As implied otherwise by these analyses, Taiwan's air defense is not easily exposed. More than 500 long-range surface-to-air missile launchers, 80 percent of which are road-mobile, thousands of short-range surface-to-air missile launchers placed on or carried by ground forces, and over 400 road–mobile antiaircraft weapons are also available.[28] They will all be directed against approaching Chinese missiles and planes, and some of them may even hit PLA facilities and missile batteries.

There are other studies as well that cast doubt on the viability of a Chinese invasion against Taiwan. For instance, 2013 PLA research using computer simulations revealed that the PLARF can only temporarily destroy a small number of Taiwanese air bases.[29] The recently published 2023 Center for Strategic and International Studies (CSIS) wargame developed to mimic a Chinese amphibious invasion of Taiwan presented different results for different scenarios, most of which were discouraging for the Chinese. Broadly, under optimistic scenarios for the American, Taiwanese and

Japanese forces (Blue team), Chinese amphibious capabilities would be destroyed in a week. In pessimistic scenarios to the Blue team, the Chinese amphibious fleet might survive till the end of a month from the invasion.[30] As the game progressed, Chinese amphibious, airborne, and air assault capabilities gradually deteriorated under United States, Japanese, and Taiwanese attack, so China cannot rely on them indefinitely. However, even with a sound strategy by the red team (China), the combination of challenges facing PLA invasion forces on the shores of Taiwan were too great to overcome. For example, the red team was unable to offset the challenges faced by the PLA supply lines in the landing beaches.[31]

Beckley too provides his inputs on the challenges that PLA landing forces will have to endure:

> "…unless China destroyed all of Taiwan's antiship missile launchers, Taiwan could "thin the herd" of PLA amphibious ships as they load in Chinese ports or transit the Taiwan Strait. Computer simulations suggest that Taiwan would only need to fire fifty precision–guided missiles to destroy a dozen Chinese amphibious ships, losses that would end all hopes of a successful invasion. Taiwan also could bombard PLA landing craft with short-range artillery fire as they made their final twenty–minute run into the beach. Even if China's prospects are better than I have suggested, the PLA clearly would have its hands full just dealing with Taiwan's defenders."[32]

However, the 2023 CSIS wargame also revealed that Taiwan's air losses included roughly half of its operational air force, the majority lost on the ground to missile strikes.[33] The red team was also successful in stifling Taiwanese air power and severely restricting the expansion of American land-based tactical air capabilities in Japan. Red's air forces proved to have gained significant air supremacy over Taiwan during the early stages of the conflict, allowing them to use ground–attack aircraft and bombers to hinder the mobilization of Taiwanese reinforcements to the front lines of fighting. For the sake of conservatism, therefore, the question of whether the PLA might successfully launch an amphibious invasion of the island and wipe out the majority of Taiwan's air and naval assets in a surprise attack still lingers.

Yet, the CSIS game also revealed that the PLAAF suffered attrition from ground fire and SAMs throughout the campaign, lost a total of 290 aircraft under optimistic scenarios and 327 under pessimistic scenarios.[34] In all iterations, PLAN ships around Taiwan were the primary focus of attack, and China's naval losses averaged 138 major ships which included 86 amphibious ships (90 percent of the total) and 52 other major surface warships.[35]

The CSIS Wargame also shared some alarming data that will unsettle China. China suffered significant personnel losses overall. Beijing lost an average of seven battalion-equivalent units during ground fighting, which is comparable to Taiwan's ground losses. This would result in around 7,000 casualties, with a third of them likely being fatal. Another 15,000 or so men were said to have perished at sea. Finally, the 30,000

or more Chinese survivors in Taiwan would very certainly wind up as captives at the end of the battle.

Another wargame concludes that there is no quick victory for either side if China decides to invade Taiwan. A high-level strategic–operational wargame addressing a hypothetical conflict over Taiwan in the year 2027 was undertaken by the Gaming Lab at the Centre for a New American Security (CNAS) in collaboration with NBC's Meet the Press.[36] As the game went on, players realized neither Taiwan, the United States, and Japan (Blue) nor China (Red) felt as though it had lost the battle for Taiwan, and Beijing, despite its hopes for a quick and conclusive win, was ready for a protracted battle.[37] The swift win for Red proved elusive. Red amphibious, airborne, and invading troops managed to reach the coast thanks to Red's control of the airspace over Taiwan, but they were met with stiff resistance.[38] North of Taipei, red troops took control of an airport and beach but suffered significant losses. Red's invading army still had to cross rocky, well-defended terrain to get to the capital when the game was over.[39] Additionally, Red had to figure out a means to supply its men on the coast with gasoline, food, and ammunition while Blue forces targeted its exposed lines of communication.[40]

When it comes to sea denial, the U.S. navy has the potential to sink PLAN (People's Liberation Army Navy) ships and submarines nearly anywhere in the first island chain. The PLAN is unable to legitimately restrict space to U.S. Navy missile–equipped submarines during hostilities or even in times of peace because of its limited antisubmarine capabilities.[41] The extensive underwater surveillance network of America in East Asia, which can set up picket lines close to the conflict zone or close to China's ports and sink Chinese ships and submarines with torpedoes, missiles, and mines, aids in the operational effectiveness of U.S. submarines. The PLA's inadequate antisubmarine warfare troops, which are unable to cover the region's depths, would have a nightmare if U.S. nuclear–powered submarines (SSNs) continue to descend into the SCS. As a result, the United States enjoys an enormous military advantage over the PRC and may thus play a significant military role in the Taiwan dispute.

What Could Then Complicate Intervention for the United States?

In a perfectly harmonious situation of the stability/instability paradox, American intervention wouldn't lead to escalation from conventional to nuclear level as the two levels are hermetically separated under the conditions of the paradox. Would the United States then, under conditions of the stability–instability paradox, risk intervention in a Taiwan crisis? According to Thomas Christensen, the stability-instability paradox can create escalation controls provided there are robust firebreaks between the two levels.[42] If the PRC's adherence to NFU is sincere, then its nuclear policy becomes a robust firebreak between the conventional level and general nuclear war which will give the

U.S. strategic confidence to intervene in a Taiwan based on the stability–instability paradox.

However, in the absence of robust firebreaks between conventional and nuclear level, the stability–instability paradox becomes untenable which can be exploited by an actor that is inferior in the conventional and sub-strategic nuclear levels by deterring aggression against its national interests by exploiting what Thomas Schelling calls a "threat that leaves something to chance." Schelling was of the view that a state need not make any explicit threat to initiate intentional general nuclear war. Rather the fear of an uncontrolled, *out of hand* escalation to general nuclear war could be used by a state to base deterrence. Taking steps or actions that increase the likelihood of an uncontrollable escalation, a state can always make *threats that left something to chance*.

The concept underpinning the "threat that leaves something to chance" is *brinkmanship* in which a state tied to his adversary decides to get close to the edge of a slope from where "one may fall in spite of his best efforts to save himself, dragging his adversary with him."[43] When advocating such a strategy against the Soviet Union in an interview in 1956, U.S. Secretary of State John Foster Dulles first used the phrase, characterizing it as "the ability to get to the verge [the brink] without getting into the war."[44] Explaining brinkmanship in the context of general nuclear war, Schelling writes:

> "Brinkmanship is thus the deliberate creation of a recognizable risk of war, a risk that one does not completely control. It is the tactic of deliberately letting the situation get somewhat out of hand, just because its being out of hand may be intolerable to the other party and force his accommodation. It means harassing and intimidating an adversary by exposing him to a shared risk, or deterring him by showing that if he makes a contrary move he may disturb us so that we slip over the brink whether we want to or not, carrying him with us."[45]

Elucidating Schelling's theory further, Robert Powell writes:

> "A state raises the risk of an uncontrolled, explosive escalation to general nuclear war by engaging…in such a way that neither the threatening state nor the threatened state can control the outcome. In this type of threat, escalation to general nuclear war results from both sides losing collective control of events. Crises become a competition in demonstrating resolve which is defined as a willingness to run grave risks of an explosive escalation to general nuclear war."[46]

Therefore, in a brinkmanship crisis, states exert coercive pressure on each other to create a recognizable risk, a risk that one does not completely control. More generally, it illustrates the fundamental notion of brinkmanship that the "risk of nuclear escalation depends at least in part on something exogenous—on something beyond control of the states, at least in the short run of a crisis."[47] More concretely, the risk of escalation

is determined at least partially by the characteristics of the nuclear forces, postures, and doctrines, or by the actions taken during for example, a policy of launching on warning.[48]

Barry Nalebuff, in a brilliant analysis, demonstrates how Schelling's slippery slope had worked in favor of the United States in its attempt to deter Moscow against conventional aggression in Europe during the Cold War by using the example of U.S. Navy's aggressive operational posture against the Soviets:

> "On one side, former U.S. Navy Secretary Lehman argues that an aggressive U.S. naval position is needed to deter potential Soviet aggression against Norway. On the other side, Barry Posen responds that the offensive strategy Lehman espouses would risk igniting a nuclear war. Whether by design or by accident, the U.S. Navy's conventional war plan would threaten and possibly destroy Soviet nuclear missile submarines, as they are indistinguishable from conventional attack submarines. This might be read by the Soviet Union as the opening gambit of a nuclear attack. Each of these viewpoints focuses on only one of the two countervailing forces that arise when the United States takes a more aggressive military position. On the positive side, the greater risk of escalation that goes along with a more aggressive posture means that the Soviets will act less aggressively; the chance of conventional war is diminished."[49]

Using Schelling's idea of a "threat that leaves something to chance," Thomas J. Christensen builds his case against the rigidity of the stability–instability paradox where he argues that the absence of robust firebreaks leads to adversaries slipping down the slope of conventional level into general nuclear war.[50] Taking Christensen's reasoning further it could be argued that dilution of firebreaks that holds the stability–instability paradox between the United States and the PRC is the key to deterring Washington's intervention in a Taiwan crisis as U.S. leadership will be weary of China's 'threat that leaves something to chance'.

Since it is in the interest of a conventionally weaker PRC to avoid a U.S. intervention in a Taiwan crisis, it begets the question as to whether Beijing is diluting enough firebreaks and creating enough "recognizable risk" of general nuclear war to leave "something to chance" for Washington to non-intervene. As noted in previous sections, doctrinal developments in the PRC have already diluted its NFU policy to a great extent, leading Thomas Christensen to question the robustness of the firebreaks linking the conventional and nuclear level *vis-à-vis* the strategic stability between Beijing and Washington. At the same time, Beijing is simultaneously developing conventional and nuclear coercive capabilities that overlap significantly, further eroding the firebreaks. For example, the DF-26 ranging approximately 3,400 to 4,000 kilometers, is a dual–capable missile system that can carry either a conventional or a nuclear warhead. It is also "hot–swappable" meaning the warheads can be quickly swapped on launch–ready missiles.[51]

Dual–capable missiles like D-26 in thousands are pointed in the direction of

Taiwan as part of Beijing's coercive campaign against the island. Complicating the picture, some of these conventional missiles have ranges that allow them to reach U.S. bases in Japan and hit targets elsewhere as well. The PRC has heavily invested in the development of an anti-ship ballistic missile (ASBM) capability which can hold U.S. naval forces deployed in forward positions at bay to some extent.[52] Needless to say, in order to protect its bases and assets at sea, as well as its allies and security partners in a crisis, the United States would find great value in launching kinetic attacks on Chinese mobile missiles as well as crippling its command-and-control (C2) architecture.

Knowing full well that these key weapon systems could easily blur the lines between conventional and nuclear war in a Sino–American conflict, Beijing is intentionally fielding them to raise the "risk of an uncontrolled, explosive escalation to general nuclear war" to activate Schelling's "threat that leaves something to chance." From Beijing's perspective, Washington could never be sure if strikes by the United States on the PRC's "conventional coercive capabilities or their critical command and control nodes and supporting infrastructure were to appear in Beijing as a conventional attack on its nuclear retaliatory capability or as a precursor to a nuclear first strike."[53]

What will further spark doubts in the minds of the Americans are increasing calls and comments from Chinese academicians and strategists to soften or simply scrap its adherence to a NFU principle under various extreme circumstances in a conventional war. Academicians like Dingli Shen, deputy director and professor, Center of American Studies at Fudan University in Shanghai, question the validity of the NFU deterrence policy when faced with American precision weapons if Washington decides to intervene:

> "If China's conventional forces are devastated, and if Taiwan takes the opportunity to declare de jure independence, it is inconceivable that China would allow its nuclear weapons to be destroyed by a precision attack with conventional munitions, rather than use them as true means of deterrence."[54]

An internally circulated volume published by former Second Artillery deputy commander Lieutenant General Zhao Xijun, *Intimidation Warfare*, similarly questions the rigidity of the NFU doctrine in the same way as the doctrinal book *Science of Second Artillery Campaigns* does, stating that "reducing the nuclear threshold (adjusting nuclear policy)" is a "main method of military deterrence for the nuclear missile force."[55] One PLA author dramatically offers a sweeping, flexible recipe for nuclear weapon use: Beijing could launch nuclear warheads whenever "China's core national security and development interests are fundamentally undermined."[56] Disingenuous as it is, some in Beijing—according to Alastair Iain Johnston—actually believe "that a first strike on an enemy whose attack is imminent is still a retaliatory, second-strike act."[57]

For all of these reasons, it is fair to assume that China is slowly managing to chip away at the firebreaks that could prevent a crisis with the United States in Taiwan

to escalate out of conventional warfare to general nuclear war. In such a perilous situation, Schelling's shared risk of a "threat that leaves something to chance" is well alive between PRC–U.S. security relations that will exponentially raise the risk of intervention for the United States in a Taiwan crisis.

What Are the Options for the United States?

A strategy of nuclear brinkmanship by China will directly impact the strategic stability between the United States and China over the Taiwan Strait. China views Taiwan as an internal affair, and therefore could justify its nuclear saber–rattling as defensive. Whereas the United States and its allies could interpret China's nuclear brinkmanship as a strategy for annexing Taiwan and hence see themselves as defensively defending the freedom of Taiwan.[58] Each side believes the other is trying to gain (or maintain) regional hegemony, and this misperception of each other might cause a crisis to flare up and perhaps result in a nuclear exchange.

To prevent such a disaster, George Perkovich argues that Washington should persuade Beijing to share a state of mutual vulnerability to maintain strategic stability. According to Perkovich, stability could mean the following:

> "…both the United States and China would be determined to resolve the crisis without use of force and that each would have some confidence that the other shared an interest in such restraint. If that failed and crisis erupted into conflict, stability would mean that neither side would think it could use nuclear weapons first and "win." Instead, both leaderships would understand that any use of nuclear weapons would be most likely to lead to unacceptable damage to their own country."[59]

Nonetheless, literature on deterrence from the past indicates that a nation seeking to defend distant allies against foreign invasion using the tactic of putting its enemy in a position of mutual vulnerability is not a credible alternative. Henry Kissinger, a former U.S. Secretary of State, was reported by a U.S. official as stating, "Great powers don't commit suicide for their allies."[60] Which is why, Elbridge Colby claims that the United States requires weaponry capable of bridging the vast gap between conventional conflict and all-out nuclear war.[61] He contends that Washington should intensify its efforts to produce low-yield tactical nuclear weapons and related tactics to thwart or defeat a Chinese attack on Taiwan without starting a nuclear war.[62] What this entails is that Washington should initiate its own nuclear brinkmanship to face China's crisis escalation with nuclear weapons to protect Taiwan from an invasion.

As it stands today, the majority of the U.S. arsenal is made up of strategic weapons designed to wage a massive all-out nuclear war against an enemy's strategic forces, leadership targets, command and communication targets etc. Nearly all of America's tactical nuclear weapons have been decommissioned. The handful that are still around are only marginally useful in a conflict with China. This gap was acknowledged in the

2018 Nuclear Posture Review by the Trump Administration. It pledged to update the United States' air–delivered tactical bombs and create low-yield nuclear warheads for the sea–launched ballistic missiles (SLBM) force.[63]

Conclusion

The PRC understands that despite closing the gap between itself and the United States in terms of conventional firepower, the PLA still is not in a position to deny the U.S. military access to the first island chain. This reality directly impacts the PLA's preparation for an invasion of Taiwan. There is already no surety if Taipei will capitulate to a PLA invasion or a blockade. U.S. intervention will only complicate things further for Beijing. In this regard, the PRC will learn lessons from President Vladimir Putin's experience with nuclear brinkmanship against NATO forces in the Ukraine war to prevent their intervention in the conflict. Already there is wide support in Beijing for the use of the threat of nuclear weapons as an aid to conventional deterrence in order to achieve "double deterrence" against Washington. Therefore, Russia's successful brinkmanship will further validate their position within the nuclear strategic debates in Beijing. Nuclear brinkmanship will heighten the sense of shared risk/calamity between the two adversaries which will compel the United States to consider the effect of Thomas Schelling's "threat that leaves something to chance" while taking the decision on intervening in a Taiwan crisis.

Notes

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