

STRATEGIC TRENDS RESEARCH INITIATIVE

CHINA'S THEATER-RANGE, DUAL-CAPABLE DELIVERY SYSTEMS: INTEGRATED DETERRENCE AND RISK REDUCTION APPROACHES TO COUNTER A GROWING THREAT

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INTRODUCTION

China has engaged in a dramatic buildup of its nuclear forces over the past decade. While much of the attention on China's new nuclear arsenal has focused on its development and expansion of its strategic nuclear triad, this growth has also included significant numbers of theater-range, dual-capable delivery systems. These forces are not capable of reaching the U.S. mainland but can range U.S. and allied forces and bases across strategically significant swathes of the Indo-Pacific.

This research project assessed the growing threat to the United States and its Indo-Pacific allies posed by these systems. It then considered ways and means to counter and deter this challenge. It also considered possible risk reduction options. The study team organized its work around three main research questions:

1. What is the role of China's theater-range, dual-capable delivery systems in its strategies and plans for countering U.S. intervention within a future Indo-Pacific security crisis or conflict?
2. What "integrated deterrence" strategy or strategies:
 - a. Can counter China from utilizing these systems to realize strategic and operational objectives by threatening the United States and its Indo-Pacific allies and partners with nuclear strikes?
 - b. Can deter China from launching nuclear attacks with these systems in a future regional conflict?
 - c. If deterrence fails, how can the United States defeat this capability and restore deterrence?
3. What confidence-building and risk reduction approaches can reduce escalation risks and/or limit the threat to the U.S. and its Indo-Pacific allies posed by these systems?

METHODOLOGY

The project team utilized both primary and secondary sources over the course of its research. Interviews were conducted with 39 U.S. Government (USG) and non-government subject matter experts (SMEs). In addition, to understand how China might utilize its theater-range, dual-capable delivery systems within a notional future Indo-Pacific crisis or conflict, the research team accompanied interview questions with a scenario developed with the assistance of National Defense University's Center for Applied Strategic Learning (NDU's wargaming division). Interviewees played the role of a Chinese military commander with access to both nuclear and conventional force options. The research team incorporated data from the interviewees' gameplay and decision-making rationale into the final research analysis.

ANALYSIS

ROLE IN REGIONAL CONFLICTS

How might China utilize its theater-range, dual-capable delivery systems in a future Indo-Pacific regional conflict involving the United States? To answer this question, it is critical to assess China's "theory of victory" for defeating a U.S.-led intervention force within this scenario and understand how Beijing views the role of its nuclear arsenal in realizing this outcome.¹ Within this conceptual framework, China's theater-range, dual-capable delivery systems will attempt to enable and shield the operations of its conventional forces. Moreover, throughout a regional crisis and conflict Beijing will utilize these systems within broader efforts to influence the cost-benefit calculus of U.S. and allied decision-makers, attempting to highlight the nuclear escalation risks and potential high costs of fighting the People's Liberation Army (PLA).

China's Theater-range, Dual-capable Delivery Systems

China presently fields two theater-range, dual-capable delivery systems that are clearly assigned a nuclear role, the *Dong Feng-26* (DF-26) intermediate-range ballistic missile (IRBM) and the *Xi'an Hong 6-N* (H6-N) nuclear bomber.

The **DF-26** is a mobile, ground-launched IRBM. The PLA first publicly displayed the DF-26 in September 2015. Described by the Chinese media as the “Guam express,” PLA forces operating the DF-26 have trained to “hot swap” the system (i.e., rapidly change munitions) from conventional to nuclear warheads in times of crisis.² The missile has both ground attack and anti-ship missions.

The **H6** bomber is a Chinese licensed-built version of the Soviet 1950's-era Tupolev Tu-16. Publicly unveiled in 2019, the H6-N is a variant that can carry nuclear-armed ballistic missiles under its fuselage. The bomber has an estimated range of 3,100–3,300 nautical miles without refueling; its range can be extended, however, by Y-20 refueling aircraft.

The PLA's DF-27 missile and future H20 “stealth” bomber are likely dual-capable, but not yet deployed; their possible future nuclear role is uncertain.

China's Theory of Victory (Future Regional Conflict)

China's theory of victory for a potential future conflict in the Indo-Pacific over Taiwan (or some other conflict sparked by disputed sovereignty claims within the region) is relatively simple and straightforward.³ First, China seeks to “win without fighting” by convincing any potential opponent that the risks and costs of resisting Beijing are too much to bear. China plans to use a variety of military, diplomatic, and economic tools to compel or coerce this outcome. In terms of military power, it aims to achieve a preponderance of military force (primarily conventional capabilities, but backed by nuclear forces, as discussed further below) within the theater of conflict. It will also use diplomacy, propaganda, and other forms of strategic messaging—such as official public pronouncements—to communicate that the dispute in question is “local” or “regional” (or, if Taiwan is involved, “internal”) in an effort to convince outside powers they do not have a significant stake in the outcome.

Second, regarding outside powers, China is first and foremost concerned about the United States. The latter represents the only state actor possessing the military prowess, economic strength, and diplomatic capital to challenge Beijing's drive to become the Indo-Pacific's regional hegemon. China would prefer to avoid a direct military conflict with the United States if possible. If it plans to initiate an Indo-Pacific security crisis, it will first attempt to persuade U.S. policymakers and the U.S. public a potential conflict in the region is distant, costly, and not in the United States' national interest. If the United States does prepare to intervene, China will seek to limit the size of the U.S. intervention force, taking overt and covert steps to prevent Washington from bringing the full (conventional) weight of the U.S. military against it.

Third, China will attempt to forestall or limit support from U.S. Indo-Pacific allies and partners to the U.S. intervention. Beijing is increasingly confident in its military posture in the Western Pacific. At present, however, China is not sure it can defeat both the United States and its allies in a protracted Indo-Pacific conflict. Well before any fighting occurs, Beijing will try a multi-pronged approach to winnow down the opposing forces it could face. Within the region, China will use economic coercion and veiled threats to pressure U.S. allies and partners not to join the U.S.-led intervention. It will also seek to convince Indo-Pacific states to refuse other forms of support (e.g., denying use of ports or airfields) to the U.S. response.

Beijing views military conflict as an inherently risky endeavor; even as it takes steps to improve its own odds in a fight, it will initially focus on warfare in the psychological and information domains rather than kinetic actions. China will devote considerable resources and energy to attempting to convince U.S. and allied

policymakers the costs of fighting China over Taiwan (or some other Indo-Pacific territorial or access dispute) are significantly higher than the benefits. If successful, it may dissuade the United States from mounting a significant military intervention, or so starve an attempted U.S. intervention of allied resources and personnel that Washington is either forced to recall its forces or curtail their objectives.

If these efforts are unsuccessful, however, China has worked diligently to make the Western Pacific a dangerous operating environment for the United States. It seeks to shape what it considers the likely battlefield to its advantage. As such, the fourth aspect of China's theory of victory is its commitment to an anti-access/area denial (A2/AD) strategy, particularly in and around the Taiwan Strait. Any U.S. ships or aircraft that venture into this area will face bombardment or attack from large numbers of air, land, and sea-based strike platforms. U.S. commanders and policymakers attempting to relieve a beleaguered Taiwan, for example, will face a serious dilemma: to improve the odds of wresting control of the air domain from China (a requirement of a successful campaign), it will need to strike missile batteries, airfields, and communications nodes located on the Chinese mainland. But many U.S. analysts view mainland strikes as potentially escalatory. China may be aware of these U.S. concerns and seek to reinforce them wherever possible; any U.S. wariness or hesitation regarding where and how to employ force in a Taiwan contingency provides valuable time and space to a PLA relatively untested in terms of complex combat operations.

Fifth, China will seek to keep the conflict limited in geographic scope. Beijing likes its odds of winning if it can keep the (kinetic) fighting largely contained to the Western Pacific. In the early phases of a conflict, it will be cautious about directly striking U.S. bases in the Indo-Pacific, primarily seeking to disrupt operations at these locations through actions such as jamming U.S. satellites and launching cyber attacks. In addition, for U.S. bases on allied territory, China likely calculates it is easier for allied leadership to withhold support to a U.S.-led coalition (or withdraw from it) if their own territory has yet to be directly attacked. If, however, the United States appears fully committed to its intervention even after initial clashes between U.S. and Chinese forces, Beijing will consider attacking the broader U.S. base infrastructure supporting continued U.S. operations in the Western Pacific. For these bases, China will likely make a distinction between a base located on a U.S. territory—such as Andersen Air Force Base (AFB), Guam—and striking Hawaii. Beijing probably calculates an attack on Guam will resonate less with U.S. policymakers and the U.S. public than an attack on a U.S. state. It may assess, for example, that it can strike Andersen AFB with capabilities such as DF-26s—disrupting or even suspending air sorties from this vital base—without necessarily engendering an overwhelming U.S. response. It will remain wary, even as U.S. and Chinese forces inflict losses upon each other in the Western Pacific, of pushing the United States so far that it becomes difficult for Washington to disengage or seek a negotiated settlement.

Sixth, and in a similar vein, China will seek to keep the conflict limited in terms of the strategic capabilities used (and how they are employed). In particular, China will be cautious of initiating any actions that could cause fatalities on the U.S. homeland. This caution expressly applies, for example, to the possible employment of strategic nuclear forces. Beijing views any scenario leading to an exchange of strategic nuclear weapons as a lose-lose outcome for both sides. This does not mean, as discussed further below, it will eschew any form of nuclear employment. But if it does contemplate crossing the nuclear threshold it will seek to do so in a way that attempts to limit employment to regional, military targets.

In sum, China's theory of victory in an Indo-Pacific regional conflict is to keep the United States out, keep U.S. allies on the sideline, and keep the fight limited and local. Its primary focus is on the conventional dimensions of this fight. As discussed below, however, China's expanded nuclear arsenal—to include its theater-range, dual-capable delivery systems—also plays a critical supporting role.

China's Strategic Objectives and its Expanded Nuclear Arsenal

China's view of nuclear weapons was long grounded in a belief that states with large nuclear arsenals are prone to using nuclear threats to coerce other states, a conclusion rooted in its Cold War history with both the United States and Soviet Union. Its eventual deployment of a small number of strategic nuclear forces was explained, internally and externally, as providing a limited but sufficient ability to deter major nuclear powers from attempting to blackmail China. Chinese leaders also sought to distinguish their approach to nuclear forces as different than the Cold War superpowers by publicly committing to a "No First Use" (NFU) policy, stating China would never breach the nuclear threshold within a potential conflict unless responding to a nuclear attack. Importantly, this was a nuclear strategy and policy borne out of contemporary nuclear and conventional disadvantages vis-à-vis Washington and Moscow. Its focus was to ensure neither superpower could dictate terms to Beijing.

China's thinking on the utility of nuclear forces, however, has considerably evolved over the past decade under the leadership of Xi Jinping, who assumed power in 2013. Beijing has elected to radically expand its numbers and types of nuclear-capable delivery systems and nuclear weapons. While China remains deliberately opaque in discussing its nuclear strategy, this change reflects a significant realignment of Beijing's understanding of the relationship between conventional and nuclear forces—and the potential contributions of the latter to its theory of victory.

China views its nuclear forces as playing an important role in influencing the outcome of an Indo-Pacific regional crisis or conflict in the following ways:

- Dissuading U.S. and allied policymakers from mounting a meaningful intervention.
- Enabling its conventional forces to defeat a U.S.-led intervention force that may be slow or hesitant to respond due to concerns about possible PLA nuclear strikes.
- Deterring the United States from attempting to gain any leverage within the crisis or conflict from its own nuclear forces.

First, China views nuclear forces as important for shaping U.S. and allied leadership decision making, to include cost-benefit calculations linked with a potential decision to intervene within a future Indo-Pacific crisis or conflict. Opposing decision-makers must now acknowledge China has considerable means at its disposal, up to and including nuclear weapons, to impose costs against its adversaries.

China, for example, has closely watched Russian attempts to leverage its nuclear forces during its ongoing unjust war against Ukraine. Beijing is keenly interested in whether Moscow's saber-rattling has informed and influenced U.S. and North Atlantic Treaty Organization (NATO) decision making regarding the military support provided to Ukraine. While Beijing's internal assessments are tightly held, China's leadership may have drawn the following conclusions from observing Russia's recent nuclear signaling: 1) The United States has prioritized monitoring and assessing Russia's full nuclear forces (strategic and "non-strategic") throughout the conflict; China likely concludes the United States is rapidly aware of any Russian changes in nuclear force posture or readiness; 2) Concerns about possible Russian nuclear escalation or nuclear employment in Ukraine have played a role in injecting caution in U.S. decision making and influenced choices about what weapons to provide Ukraine (and how Kiev can employ them).

Inasmuch as Moscow and Beijing are presently aligned on a range of security matters, China has remained far more circumspect in broadcasting its nuclear capabilities than the Russian Federation. From China's perspective, this opacity keeps potential adversaries guessing about its capabilities and intentions in ways that China can exploit; it also allows Beijing to claim it does not use its nuclear forces to pressure other states. The potential parallels between Ukraine and Taiwan, however—i.e., both are U.S. security partners rather than treaty allies—are likely compelling. As a result, while China is unlikely to utilize the bellicose

language employed by Kremlin-backed mouthpieces to highlight potential nuclear attacks on the United States and its NATO allies, Beijing probably concludes that various forms of less-overt nuclear signaling could play a useful role in dissuading U.S. and allied decision makers from intervening on Taipei's behalf.

Second, China has likely concluded nuclear forces play a key role in enabling and shielding its conventional military operations. This assessment is in many ways a corollary to its A2/AD strategy, which seeks to create a protective "bubble" over its own military operations (e.g., in areas such as the Taiwan Strait) that opposing forces will find difficult or costly to penetrate. China's theater-range, dual-capable forces, for example, enable its conventional operations within the Indo-Pacific by providing PLA commanders with options for holding the forces and bases of potential adversaries at risk of attacks from accurate strike platforms that are designed for battlefield use (and possibly can be equipped with "lower yield" weapons).⁴

China likely concludes that U.S. military risk assessments must now consider the possibility that Carrier Strike Groups (CSGs) and key regional nodes have to operate under a nuclear shadow. In addition to the potential psychological edge this may provide (forcing U.S. commanders unfamiliar with nuclear operations and effects to grapple with the challenges of fighting through nuclear attacks), Beijing likely hopes this threat will force the United States to alter its operational planning in the Indo-Pacific. As such, if China's nuclear forces introduce an additional degree of complexity slowing or otherwise challenging U.S. Indo-Pacific Command (USINDOPACOM) and supporting U.S. Commands, Beijing will consider this a significant win for its military forces well before any fighting begins.

Third, China probably also views its nuclear forces as providing a shield over its conventional forces, protecting them from nuclear attack.⁵ This is increasingly important because China may assess that nuclear strikes are one of the few ways opposing forces can overcome their conventional disadvantages (either now or in the near future) vis-à-vis the PLA. If Beijing can succeed in convincing potential adversaries that their nuclear weapons are off the table and cannot support (or bail out) their own forces within a potential regional conflict with China, it has taken a significant step in improving the PLA's chances in winning a solely conventional battle fought largely on terms of its own choosing.

These general conclusions about nuclear forces will inform how China will seek to utilize its theater-range, dual-capable forces within a regional conflict, as described below.

Operationalizing Nuclear Strategic Forces Remains a Work in Progress

China's major overhaul of its nuclear forces—and evolution of its strategies for how nuclear and conventional forces can work together, to include in a regional conflict—is a complex and ongoing process. Not surprisingly, Beijing has encountered some hurdles along the way. Several factors suggest China's approach to nuclear strategy will continue to evolve and face additional implementation challenges.

Build first, Operationalize Later. China's aggressive nuclear build-up, to include developing a strategic nuclear triad and theater-range, dual-capable delivery systems, is of a piece with broader leadership efforts to develop numerical advantages for the PLA vis-à-vis U.S. military forces. The rapid buildup of numbers of strike systems (of all types), however, has likely outpaced the ability of the PLA to fully integrate these capabilities into education and training (E&T), planning, and other operational processes. China's Strategic Support Force (SSF), for example, was created in 2015 to serve as a key information and communications enabler for all PLA Services (to include the PLA Rocket Force (PLARF), itself created a year later). But it was summarily disbanded in April 2024, possibly because Chinese leadership found it unwieldy and needlessly bureaucratic.⁶ The demise of the SSF illustrates how China continues to face challenges integrating the various components of its now much larger armed forces, to include its growing nuclear arsenal.

Grappling with New Challenges for Command and Control. China's breakneck expansion of its nuclear forces may have also presented its national leadership with new and unanticipated questions regarding

Chinese Communist Party (CCP) national leadership control over these new capabilities. Dual-capable delivery systems, for example, may require a national-level decision during an active conflict to swap out conventional armaments for nuclear warheads. Communicating this decision, ensuring it is understood and implemented, and directing subsequent nuclear operations, however, requires sophisticated technologies and complex decision-making processes that were not requirements of China's former nuclear arsenal.

Corruption Allegations and Leadership Re-shuffling at the PLARF. The PLARF is China's newest stand-alone military service, gaining this status in late 2015 as Beijing accelerated development and deployment of new nuclear-capable delivery systems and weapons. The move was widely interpreted as elevating the country's strategic nuclear forces to externally broadcast China's determination to become a major nuclear power that would not be intimidated by a competitor's nuclear forces. In addition, it internally communicated the importance of China's nuclear forces to future military budgets (and PLA general officer promotions).

The CCP, however, remains perpetually wary of the PLA as a potential alternate power base, keeps a tight rein on the force and its leaders, and periodically serves reminders that it is in charge. This dynamic was likely in play with Beijing's decision in late 2023 to arrest several current and former PLARF commanders for corruption.⁷ Inasmuch as corruption can always occur within the ranks, the move was likely a CCP leadership decision to clip the wings of the PLARF's command element and demonstrate the service's growing prestige does not shield it from civilian scrutiny and control. Whatever the motivation, however, the move may have paused nascent efforts by the PLARF to develop a command culture, solidify clear working relationships with non-nuclear commands, and otherwise establish and implement a clear nuclear strategy. Furthermore, questions remain as to whether and how China's theater-range, dual-capable forces will be directly assigned to the PLARF when mated with nuclear weapons. It is possible the abrupt re-shuffling of the PLARF's leadership will shelve or even re-direct how the CCP and PLA ultimately resolves this issue.

The above factors inform two important conclusions. First, the growth of China's nuclear arsenal and the development of its nuclear strategy will not necessarily follow a straight trajectory. China has clear strategic objectives for its nuclear arsenal, but the actual operationalization of military force to realize these goals may prove to be a bumpy road with an uncertain destination. Second, these factors suggest China's nuclear strategy is still under development and may be subject to shaping or influencing. Beijing will continue to build up its nuclear arsenal, but how it thinks about the relationship between conventional and nuclear forces—and possible nuclear employment—is not necessarily immutable and could change over time.

How China Might Use Theater-range, Dual-capable Forces in a Regional Conflict

Across the stages of an developing Indo-Pacific regional conflict, China would likely:

- Reserve its nuclear-certified theater-range, dual-capable forces in the early stages of the conflict;
- Use these forces (DF-26s and H6-Ns) for nuclear signaling purposes in the middle stages of the conflict (should the outcome be in some doubt);
- Only consider possible nuclear employment in the latter stages of a failing campaign.

In parallel, however, China is likely to turn to conventionally armed DF-26s relatively early in the conflict for signaling and employment, particularly in its anti-ship configuration. (Importantly, and in line with its general approach on opacity, neither before nor during the conflict will China take any steps to distinguish between "conventional" and "nuclear" DF-26s.) Should the conflict progress to a fiercely contested battle, it may turn to DF-26s (first in conventional mode, but later possibly mated with nuclear armaments) to attack Guam.

Throughout a spiraling crisis and then, potentially, an armed conflict, Beijing is likely to calculate that U.S. leadership will very closely monitor the activities and posture of China's nuclear forces (both the PLA's strategic nuclear triad and its theater-range, dual-capable delivery systems). It will seek to use this attention,

and attendant U.S. concerns about nuclear escalation, to its advantage. For the purposes of this analysis, the following scenario will focus on a potential crisis and conflict, initiated by China, over Taiwan in the 2030–2035 timeframe. The overall approach and potential utilization of China's theater-range, dual-capable forces, however, would be similar in other notional Indo-Pacific regional crises.

First, China would seek to isolate Taiwan, potentially through a de facto blockade in the form of establishing maritime and air exclusion zones over and around Taiwan and the Taiwan Strait. China's theater-range, dual-capable forces would likely play a limited role, with (conventionally armed) DF-26s moving to launch sites to threaten any U.S. or allied ships attempting to challenge the blockade. Other DF-26s, to include those associated with potential nuclear missions, together with H6-Ns, would probably continue their "peacetime" day-to-day operations, ready for possible nuclear signaling activities later. Beijing would expect Washington to take note of these movements. Importantly, Chinese diplomacy and strategic messaging would repeatedly emphasize that its moves against Taiwan represent: 1) an "internal" Chinese matter, and 2) that Beijing is resolute and heavily invested in the outcome.

Within this initial phase of the crisis, China's goal would be to persuade Washington not to intervene, in part because of the risk posed by DF-26s and other PLA capabilities to any U.S. CSG likely central to this effort. Moreover, Beijing would tailor its messaging to communicate that most (if not all) military options were on the table and its stakes in achieving its desired objectives were greater than Washington's. At the same time, Chinese leadership would take care not to highlight its potential use of nuclear or other high-end strategic capabilities—its goal would be to allow foreign leaders to internally speculate about how far Beijing would go without issuing an explicit or dramatic threat that could catalyze a defensive response.

If these initial efforts did not prevent U.S. policymakers from deciding to challenge the exclusion zone and relieve Taiwan, China would likely shift its theater-range, dual-capable forces to a signaling role. DF-26s, for example, might conduct anti-ship tests and undergo a snap exercise testing their ability to operate in a "WMD environment." H6-Ns, perhaps accompanied by PLA Air Force fighters, might also conduct some form of "patrol" within the exclusion zone. China could also take the step of publicly broadcasting that its DF-26 brigades and H6 bomber fleet were now operating on a higher level of readiness or "alert" status.

At this point, none of these actions would be expressly nuclear. But the purpose would be to demonstrate a heightened level of activity, and the overall readiness, of dual-capable systems that *could* be armed with nuclear weapons. Beijing would intend to deliver a subtle but clear signal to U.S. policymakers that China's theater nuclear forces were prepared to specifically support the PLA's conventional capabilities, to include efforts to sink U.S. and allied shipping and keep the U.S. intervention force out of the exclusion zone. (Similarly, these signals would also further emphasize to Taipei the gravity of its predicament.)

If U.S./allied and Chinese forces became engaged in actual hostilities, initially Beijing might not amplify the volume of its nuclear signaling due to an expectation it will prevail within a (solely) conventional fight. But if the conflict proves harder than expected, China might shift from subtle to more direct nuclear signaling. Beijing would likely communicate a preparedness to expand the conflict in terms of both geographic scope and the types of capabilities employed. It is at this point that China may mate theater-range, dual-capable delivery systems with nuclear weapons (a move it will assume the United States can observe, probably with alarm). It may also conduct additional H6-N patrols with the bombers now accompanied by tankers to emphasize the airframe's ability (with refueling) to hold additional U.S. bases in the region at risk.

With fighting ongoing and the outcome uncertain, Guam is likely to face attacks from conventionally armed DF-26s. Simultaneous to these attacks China may also conduct snap DF-26 exercises demonstrating its ability to conduct "precision nuclear strikes" and broadcast video clips of these exercises on government-funded channels such as *CGTN*. Depending on the level of Chinese leadership anxiety, this exercise might be punctuated with a nuclear test. Parallel to these operations and/or a possible test, Chinese diplomats may

deliver demarches to U.S. regional allies emphasizing the following points: the U.S. intervention force is interfering in Chinese internal, sovereign affairs; its actions have already caused significant collateral damage, to include civilian Chinese casualties; and all U.S. bases in the region are “legitimate military targets, subject to strikes by advanced and destructive means ... to halt their continued unlawful acts.”

Beijing’s objective at this point will be clearly and directly communicating to U.S. and foreign decision makers that the continuation of the conflict will result in its expansion well beyond the exclusion zone. (Indeed, the conventional DF-26 strikes on Guam will serve as proof China can accurately strike targets in the second island chain.) Moreover, the combination of clear nuclear signaling—in Chinese state propaganda, diplomatic messaging, and military actions—will emphasize the conflict has entered a new and dangerous phase, Beijing communicating it is prepared to escalate up to (and potentially past) the nuclear threshold. China will hope this ratcheting pressure will cause U.S. allies to drop their support of the intervention force and prompt Washington to re-consider if it wants to keep fighting.

At this point of a notional future Indo-Pacific conflict, there was considerable uncertainty amongst the China SMEs interviewed for this project as to what would happen if the United States chose to view these signals as a nuclear bluff—and call it as such. If China’s leaders believe they must “win now,” they may contemplate conducting a nuclear strike with one or a small handful of DF-26s against a U.S. CSG or against Andersen AFB on Guam. As noted in the DoD’s 2023 *China Military Power Report*, some Chinese analysts have openly contemplated the possibility of “tactical”⁸ nuclear strikes achieving battlefield or operational effects (without necessarily leading to general nuclear war).⁹ Per the above diplomatic messaging, however, if China were to take this step it would stress the “regional” and “military” nature of the target. Beijing would still hope to keep the conflict contained to the Indo-Pacific and below the threshold of major nuclear war, calculating that this “limited” nuclear attack would not necessarily provoke an overwhelming U.S. response.

China would weigh very carefully the decision to cross the nuclear threshold and it is difficult to impossible to know how its highest level of leadership might respond at this moment in the conflict. A notable difference between the Chinese leader contemplating a humiliating defeat over Taiwan a generation ago and their contemporary counterparts, however, is that Beijing now possesses the nuclear tools for in-theater nuclear signaling, brinkmanship, and potential strikes. Moreover, this leader might also conclude they enjoyed an important degree of protection in the form of a strategic nuclear deterrent capable of deterring any retaliatory nuclear strikes against China’s homeland. Given these conditions and capabilities, this leader might order what they consider a limited, pragmatic nuclear strike to either force Washington to the negotiating table or sufficiently rattle U.S. military forces such that the PLA could regain the initiative.

COUNTERING AND DETERRING

SMEs interviewed for this project were generally pessimistic regarding the present U.S. ability to counter or deter China from leveraging its theater-range, dual-capable delivery systems for the purposes of coercion and A2/AD strategies, as described above. Similarly, they were skeptical that the present U.S. regional defense and deterrence posture could deter, in extreme circumstances, limited forms of Chinese nuclear employment in theater with these types of systems. They counseled taking steps to deter Chinese conventional and nuclear aggression, highlighting the importance Beijing attaches to the ability of its theater-range, dual-capable delivery systems to complicate adversary conventional military operations in the Indo-Pacific and place hard limits (political and military) on the scope of a U.S. or U.S./allied response.

Countering China’s Theater-range, Dual-capable Forces

As noted above, some analysts within China have speculated openly about the possibility of the PLA employing tactical nuclear weapons within a future conflict. The DoD also assesses that China is deliberately

pursuing a variety of nuclear weapon yield options.¹⁰ China's theater-range, dual-capable delivery systems provide platforms for delivering nuclear strikes against both mobile and static U.S. and allied targets in the event of a future regional conflict. For Beijing, a key benefit of this capability is forcing U.S. and allied military commanders and planners to contemplate the challenges of facing nuclear strikes and then attempting to operate in a post-strike, radiologically contaminated environment.

U.S. recognition that Russia, China, and North Korea are equipping and planning for possible tactical nuclear employment against U.S. forces within regional conflict scenarios prompted the DoD, following the 2018 *Nuclear Posture Review*, to develop a "Conventional-Nuclear Integration" (CNI) concept. This concept (and associated Concepts of Operations [CONOPS] and other guidance documents) was intended to inform future plans and strategies to address and neutralize this challenge. The following six years have seen halting U.S. progress toward this goal. Recent heightened allied interest in addressing potential adversary tactical nuclear employment (driven by the Russia-Ukraine conflict and North Korean claims regarding tactical nuclear weapons), however, has led CNI to become a key area of discussion and area of future work for the United States and key allies.

The present U.S. approach to CNI covers three general tasks: 1) preparing conventional forces to successfully operate in, around, and through radiologically contaminated environments; 2) improving the synchronization of U.S. conventional and nuclear forces to prevent adversary nuclear coercion or possible employment from curtailing or derailing U.S. conventional operations; 3) Conventional Support to Nuclear Operations (CSNO) i.e., in extreme circumstances, ensuring U.S. nuclear forces receive whatever support from conventional forces is necessary to successfully complete its mission(s).

Taken together, the U.S. approach to CNI provides an effective overall strategy for countering China's theater-range, dual-capable delivery systems. Just as China seeks to shield its conventional operations with its nuclear forces, better (and clearer) synchronization of U.S. conventional and nuclear forces in-theater can provide an overall force profile that offsets China's theater-range nuclear forces. In the past two years, for example, U.S. B-52s have demonstrated their ability to use airfields in Australia, Japan, and South Korea (in addition to continuing use of Guam). B-52s visiting or rotating to one or more Indo-Pacific airfields before or in parallel to a U.S. intervention force can demonstrate to China that the United States can provide its own nuclear-capable shield over in-theater conventional operations.

CNI remains a work-in-progress for the United States, however, and key allies lag even further behind the United States in preparing their conventional forces (or plans) for addressing the challenges posed by facing a potential adversary's mixed conventional-nuclear allied force. This suggests a need to improve combined U.S.-allied efforts to implement the first two areas of CNI. First, U.S. and allied forces tend to husband relevant expertise within chemical, biological, radiological, and nuclear (CBRN) forces. These specialized units will remain vital to address myriad WMD challenges, but it is increasingly important to also educate, train, and exercise general purpose forces to understand how to navigate and operate through a radiologically contaminated environment. Importantly, general purpose forces do not require sophisticated knowledge of radiochemistry to learn how to detect and maneuver around contaminated areas; personnel can receive training in the use of a simple, handheld radiation detector (or wearable radiation sensor) to identify and avoid radiation on the battlefield.¹¹ In addition, basic education on nuclear effects can equip leaders at different echelons to understand that nuclear employment does not end their operations or the overall battle. Importantly, while some of this information is now a part of U.S. Service doctrine (and the U.S. Army has recently added an associated training requirement to some of its infantry and maneuver exercises), most U.S. allies have very limited understanding of relevant issues outside of their CBRN units.

In addition, synchronization of U.S. nuclear forces and U.S. and allied conventional forces is essentially non-existent in the Indo-Pacific. Allies understand why this approach is important to responding to adversary

intermixing of nuclear and conventional forces but also have questions regarding their potential role. This is an understandable byproduct of a region where, in contrast to Europe, the United States has no nuclear-armed allies and a relatively limited in-theater visible nuclear deterrence footprint. It also highlights, however, how achieving this synchronization will represent a steep learning curve for U.S. and allied forces.

An important first step is using CNI tabletop exercises (TTXs) to bring together U.S. and allied planners and commanders to explore and test new combined approaches to ensuring the sequencing, signaling, and communications necessary to execute these types of complex operations. TTXs, for example, can provide an opportunity to demonstrate how U.S. nuclear forces can conduct nuclear deterrence operations in theater that support and enable parallel combined conventional operations. Once the in-game adversary's in-theater nuclear forces are confronted with a matching, offsetting U.S. capability, for example, U.S. and allied conventional forces will likely feel freer to operate and better able to seize the initiative.

Realizing progress on CNI ensures U.S. and allied commanders can confidently advise their civilian leadership that a future combined force operating in the Indo-Pacific can fight through the potential employment of nuclear weapons by China's theater-range, dual-capable delivery systems. It is also important, however, for Beijing to understand Washington will not view these forces as off-limits or protected by either their opaque armament status or basing locations on the Chinese mainland. This is not to minimize the fact that any decision to strike targets within China's sovereign land borders will be a consequential one. But it is important for the United States to clearly communicate to China that its theater-range, dual-capable forces are not immune to identification, tracking, targeting, and strikes.

Future major Indo-Pacific combined exercises should expressly include activities such as battlefield radiological detection; basic nuclear forensics tasks; and finding, fixing, tracking, and targeting mobile systems. Together these activities—carried out by U.S. and allied forces—can make it clear to China it cannot hide nuclear forces on the battlefield or expect them to be withheld from target lists. In addition to communicating to Beijing that its theater-range, dual-capable forces can and will be held at risk within a notional future Indo-Pacific regional conflict, these exercises will also demonstrate that the United States does not view attacks on these forces as inherently escalatory. Importantly, this can help puncture Beijing's confidence that it can manipulate U.S. or allied concerns about escalation risks to its advantage.

Deterring China's Theater-range, Dual-capable Forces

Many of the SMEs interviewed for this project bluntly assessed the U.S. extended deterrence posture in the Indo-Pacific is insufficient for either deterring China from leveraging or employing its theater-range nuclear forces or for assuring U.S. regional allies. China, they asserted, is dismissive of the present U.S. approach, which relies on visits from CONUS-based strategic bombers to the theater and the largely invisible presence of U.S. SSBNs. This posture does little to affect China's current cost-benefit calculus regarding its utilization of theater-range, dual-capable forces. Moreover, Beijing does not consider the present U.S. approach as particularly relevant to the operations of conventional U.S. forces in theater.

Importantly, China's theater-range, dual-capable delivery systems do not face any equivalent U.S. capability in the Indo-Pacific. This grants Beijing a clear edge in a category of military forces it considers important to regional military strategies, plans, and operations. It also provides China with additional levers it can pull to manipulate U.S. and allied fears of nuclear escalation without worrying about Washington responding in-kind. As China continues to expand its theater nuclear capabilities, this absence—together with the generally light regional footprint of U.S. nuclear forces—helps feed broader regional allied concerns about the U.S. commitment to protecting them from nuclear threats.

The United States' relatively limited regional nuclear deterrence posture thus places Washington at a disadvantage even before China's potential initiation of a regional crisis. It leaves the U.S. strategic toolbox

without important means for managing crises, assuring allies (whose assistance is vital to conventional operations), or deterring forms of Chinese aggression enabled by its in-theater nuclear forces. As described below, the United States should take steps to redress this imbalance by bolstering its Indo-Pacific extended deterrence posture.

Planning a regional “roll out” for the B-21 Raider. The first flight of the B-21 in November 2023 marked an important milestone in the development of the United States’ new stealth bomber. China has long feared (and seeks to copy) the U.S. B-2 stealth bomber, worrying it can slip unnoticed behind its present defenses and rapidly knock out important command and control and leadership targets.

With the United States almost entirely dependent on visits by strategic bombers for providing visible demonstrations of the U.S. nuclear deterrent in theater, the development of a future Indo-Pacific “roll out” of the B-21 could send an important deterrent message to Beijing. While the B-21 will be based in the United States, a tailored strategic messaging campaign emphasizing its flexibility, lethality, and accuracy will communicate to Beijing that the new bomber can effectively hold a wide range of Chinese targets (to include its theater-range, dual-capable nuclear forces) at risk. In addition, in-theater flights where the B-21 is accompanied by allied fighter jets could also buoy nervous allies and contribute to broader assurance efforts ensuring their support in future regional crises and contingencies. Furthermore, if the B-21—shortly after initial operating capability—participates in a combined Indo-Pacific conventional forces exercise, Washington can also send a strong signal to Beijing that the new bomber will play an important role in future U.S.-allied CNI operations.

Promoting and Publicizing the Future Sea-Launched Cruise Missile-Nuclear (SLCM-N). A new SLCM-N (the United States retired the submarine-launched Tomahawk Land-Attack Missile-Nuclear (TLAM-N) as part of the 2010 NPR) is likely at least a decade away. Once deployed, however, the new capability can immediately bolster the United States’ Indo-Pacific extended deterrence posture. A generation ago, for example, Washington and regional allied capitals (Tokyo in particular) viewed the TLAM-N as a key nuclear deterrence asset expressly assigned to the Indo-Pacific. Importantly, the survivability and operating range of a theater-range nuclear capability operating on or below the ocean’s surface poses immediate dilemmas for China’s nuclear and conventional forces. This is particularly important given China’s increasing ability to hold U.S. airfields in the region at risk; whereas Beijing may be confident it can curtail American airpower (to include bomber operations) in the Indo-Pacific, it will face a fundamentally different challenge with the SLCM-N.

The United States should put these concerns on China’s radar and provide additional assurances to regional allies (particularly if strategic triad modernization initiatives face delays), by developing an information initiative about the SLCM-N. This effort should highlight how this new, highly survivable, theater-range nuclear capability will contribute to a stable regional deterrence posture by providing the United States an additional capability for quickly and effectively responding to in-theater strategic aggression. The initiative could also emphasize that the SLCM-N represents a pragmatic response to the growing numbers of these systems appearing in other states’ arsenals.

Providing Education and Training (E&T) Opportunities for Allied Air Forces Regarding CSNO. CSNO represents the third, and for U.S. Indo-Pacific allies, least well-understood area of CNI. For both military and political reasons, CSNO are highly complex and highly sensitive. Allied air forces, however, have frequently flown together with U.S. strategic bombers when the latter visit the Indo-Pacific. As a result, the type of CSNO Indo-Pacific allies could most readily support—within the context of “extreme circumstances” whereby the United States might carry out a nuclear strike—is fighter aircraft, electronic warfare aircraft, and/or tanker support to U.S. strategic bombers armed with nuclear weapons. The United States could develop and subsequently provide E&T opportunities to Indo-Pacific allied air forces regarding how their airframes could potentially fly as part of a future bomber CSNO. In the longer term, the United States should

also investigate the possibility of Indo-Pacific allied aircraft participating in a future NATO “Steadfast Noon” nuclear exercise, which provides NATO air forces with an annual opportunity to practice CSNO.

Leaving Open the Possibility of a Future U.S. Nuclear-capable MRBM/IRBM. The U.S. Army’s nuclear mission ended shortly after the conclusion of the Cold War; in addition, the implementation of the Intermediate-range Nuclear Forces (INF) Treaty resulted in the dismantling of the Service’s nuclear-capable intermediate-range missiles. Russia’s violation of the INF Treaty, and the U.S. decision to withdraw from the accord, removed a long-standing legal barrier to the United States’ contemplating development of a new nuclear-capable MRBM or IRBM. The U.S. Army has subsequently moved forward with the development and recent initial deployment of the conventional Mid-Range Capability missile. Returning a nuclear mission to the U.S. Army, or otherwise developing a new nuclear-capable MRBM or IRBM, would entail a significant investment of fiscal, personnel, and institutional resources by the Armed Service and the U.S. nuclear complex. Putting this forward as a *potential* option for deterring capabilities already fielded by China, however, could provide for useful conversations with regional allies regarding the assurance value of this type of system (and, critically, if they are prepared to host it). This could usefully discomfit Beijing, forcing it to contemplate the possibility the DF-26 might face an equivalent U.S. capability in the future.

Constructing One or Two Warhead Storage Areas (WSAs) in the Indo-Pacific. During the Cold War, the United States stored tactical nuclear weapons at various locations across the Indo-Pacific. These weapons were removed in the early 1990s as a part of President George H.W. Bush’s Presidential Nuclear Initiatives. Given present regional security dynamics, the United States should consider the construction of one or two WSAs within the theater. These facilities would not necessarily store weapons immediately after completion. Their construction and presence, however, would raise the possibility the United States could return tactical nuclear weapons to the Indo-Pacific on short notice.

This course of action (CoA) would not be inexpensive, nor would it be without risk; critics will argue in-theater WSAs will become immediate targets. The broader reality, however, is that all important U.S. military facilities in the region are subject to targeting. This risk must be considered on balance with the potential benefits provided. In this case, China would face the possibility the United States could arm its nuclear-capable platforms in theater. Moreover, China may share Russia’s assessment that multiple U.S. conventional platforms are readily converted to nuclear-capable delivery systems. (Moscow has repeatedly made this argument, without evidence, about U.S. B-1 bombers converted to conventional-only status as part of the START and New START treaties.) If so, amongst other benefits, the placement of WSAs in theater will inject doubt into Chinese efforts to track the location and numbers of U.S. nuclear forces in the region.

Restoring Deterrence Following In-Theater Nuclear Employment

SMEs interviewed for this project were sharply divided over how to restore deterrence against nuclear employment if China uses a theater-range, dual-capable delivery system to deliver a nuclear warhead against U.S. forces in the Indo-Pacific. Their one area of agreement was ruling out a “proportional” nuclear response (i.e., one or a handful of U.S. nuclear weapons) as ineffective to changing China’s calculus regarding possible additional nuclear attacks. They otherwise fell into two camps, either counseling a larger nuclear strike in response or stressing the importance of achieving a decisive conventional victory.

For the former group, only the imposition of significant nuclear costs would dissuade China from further nuclear escalation. The latter strongly disagreed, viewing a larger U.S. nuclear counterstrike as a pathway for Beijing to now turn to employing its strategic nuclear forces. They instead counseled that the form of punishment most likely to convince China not to employ additional nuclear weapons was the achievement, as rapidly as possible, of a clear and decisive conventional victory. Each group acknowledged their preferred

CoA was risky and hard to operationalize, underscoring the paramount importance of ensuring nuclear deterrence does not fail.

ARMS CONTROL AND RISK REDUCTION

An Indo-Pacific “Dual Track” Approach to Improve Chances for Future Arms Control

There is little prospect for U.S.-China arms control negotiations in the near to medium term. For the past decade, Beijing has repeatedly rejected U.S. offers on nuclear diplomacy, whether for a legally binding nuclear treaty or for less formal “strategic stability” talks.

Beijing’s lack of interest and continuing expansion of its nuclear arsenal (to include theater-range, dual-capable delivery systems) suggest the United States should consider employing a “dual track” approach similar to its response in the late Cold War era to the Soviet Union’s rapid buildup of theater-range nuclear missiles intended to menace and divide NATO. While building up its in-theater nuclear-capable forces by implementing one or more of the suggestions listed in the section above, the United States could also simultaneously offer China diplomatic negotiations to discuss mutual limits to these delivery systems. The 1980s dual track approach united U.S. allies behind a strategy balancing deterrence and diplomacy while simultaneously countering Moscow’s efforts to manipulate European leaders’ fear of U.S. abandonment. A similar approach in the Indo-Pacific could simultaneously bolster U.S. nuclear deterrence and assurance strategies while also wrongfooting China’s ongoing efforts to paint the United States as a destabilizing regional force uninterested in diplomacy.

In addition, while Beijing is presently uninterested in arms control talks, China’s history is characterized by sudden and unpredictable changes in leadership and national priorities. The United States should maintain the skilled personnel and specialized capabilities to negotiate and implement arms control treaties. This includes the unique expertise associated with planning, conducting, and hosting on-site inspections (OSIs). The United States has only conducted OSIs of nuclear-capable forces in the Soviet Union and Russian Federation. China’s nuclear forces, their bases, and their supporting infrastructure, however, are different than Russia’s. Moreover, devoting effort to understanding China’s nuclear forces and how they operate is time well spent. The DoD should commit to preparing for possible future nuclear force OSIs in China as well as the requirements associated with hosting reciprocal inspections. (The central role of DTRA in implementing this CoA is discussed further in the recommendations section below.)

Divergent Views on Risk Reduction and Crisis Management

China has a fundamentally different understanding from the United States on how to reduce strategic risk, to include in the area of crisis communications.

China questions the U.S. assumption that within a competitive environment there is an element of risk from accidents, incidents, or misunderstandings involving strategic capabilities, to include nuclear forces. Chinese leaders are skeptical not because accidents are impossible; rather, they are unconvinced any accident could put in motion a chain of events beyond the political control of the actors in question. This skepticism leads it to view risk reduction mechanisms—and the degree of transparency they often provide—as cynical ploys for gathering information on an adversary’s strategic capabilities.

China also operates under the assumption the United States is prepared to deliberately provoke regional crises to gain some kind of advantage. This reflects Beijing’s conviction that the primary source of risk and instability in the Indo-Pacific is the presence of United States military forces in the region. As such, China has repeatedly rejected U.S. proposals for exchanging information on nuclear doctrine, strategy, or forces. It has also dismissed U.S. inquiries regarding its theater-range, dual-capable forces, to include regarding their role

within their growing nuclear arsenal, and U.S. arguments that the sharing of information can contribute to bilateral and regional stability.

The two sides also broadly differ on the value of crisis communications channels. The United States views the establishment and use of these channels as inherently positive, borne out of its long experience in addressing various geopolitical crises with the Soviet Union during the Cold War. Beijing, in contrast, argues the establishment of crisis communications between potential rivals may *catalyze* instability and encourage risk taking. This is due to Chinese SMEs believing that once these lines of communications are in place, the United States will conclude it can now safely initiate and subsequently successfully manipulate crises. Accordingly, China has repeatedly rejected the idea of a direct, dedicated crisis communications hotline between U.S. and Chinese national leaders like the Washington-Moscow MOLINK.¹² This also reflects concerns that the United States would use the link to collect intelligence on high-ranking Chinese officials.

In short, the two sides remain far apart in their understandings of strategic risk; moreover, China views the U.S. approach to (and offering of) risk reduction mechanisms as Trojan Horses.

Initiating Discussions on Approaches to Managing Crises

Due to China's view of risk reduction concepts as inapplicable or detrimental to its own security, the United States should consider a different approach to engaging Beijing on crisis management initiatives.

The recent, albeit limited, thaw in Sino-U.S. diplomacy has allowed for some diplomatic meetings and military-to-military engagements. Chinese interlocutors who previously focused on the language of "crisis prevention" (linked with assertions that all regional crises could be avoided if U.S. forces simply left the Indo-Pacific), for example, have recently shifted to occasional use of the term "crisis management."

This may provide a window for discussing differing U.S. and Chinese theories and concepts of crises, how to respond to them, and why this matters—while avoiding terminology that will simply shut down discussion as Chinese SMEs retreat to well-worn talking points. In the past, various Sino-U.S. SME Track 1.5 and 2 dialogues on nuclear issues, for example, have provided opportunities to elucidate how and why the two sides view nuclear strategies and policies through widely divergent historical and conceptual lenses. While the dialogues did not resolve these differences, U.S. participants concluded they better understood Chinese SME thinking on these topics (and vice versa); as such, these engagements "yield[ed] some consensus and enhanced mutual understanding" and "identified and countered misperceptions on both sides."¹³ As such, a generally analogous approach to Track 1.5 and 2 engagements on how the two sides conceptualize and respond to crises may provide opportunities to develop useful baseline understandings of these issues, as well as identify mutually beneficial ways to avoid future regional security crises and conflicts.

KEY FINDINGS AND RECOMMENDATIONS

Finding: China believes its theater-range, dual-capable delivery systems can enable and shield its conventional operations in the Indo-Pacific. Through the implicit threat of tactical nuclear strikes on the in-theater operations of U.S. and allied conventional forces, China seeks to complicate U.S. and allied military planning and slow forces wary of accessing certain areas (or attacking certain targets) "protected" by PLA theater-range nuclear forces.

Recommendation: DTRA Research and Development Directorate's Nuclear Effects brief (and accompanying "flipbook") represents an important educational tool for providing allied military personnel with an introduction to tactical nuclear effects. The brief effectively balances information about the challenges these weapons present to forces on the ground while also emphasizing that most

in-theater military operations (to include units a few kilometers from the strike) can and should continue unabated. DTRA should engage with OSD Policy and the Joint Staff to determine additional opportunities for providing Indo-Pacific allied military forces with this briefing.

Recommendation: DTRA should explore how the Defense Nuclear Weapons School, together with resident expertise in DTRA HQ Directorates (to include the Nuclear Enterprise, Research and Development, and Strategic Integration Directorates), can develop additional educational modules for bolstering CNI resources for U.S. Joint Professional Military Education (JPME) schoolhouses and additional combined E&T initiatives. At present, CNI issues are largely absent from JPME courses. This is due to a lack of instructor familiarity with the concept and the limited amount of currently available information on why CNI is important and how it is being implemented. DTRA could play an important role in providing expertise and educational resources to address these gaps.

Similarly, these and other DTRA Directorates with resident expertise on nuclear concepts, wargaming, and providing countering-WMD (CWMD) support to Command staffs can provide invaluable support bolstering nascent Joint Staff efforts to develop combined CNI TTXs. DTRA's deep experience in areas such as supporting Combatant Command planners on nuclear issues, for example, is directly relevant to potential future Indo-Pacific CNI TTXs that may focus on testing combined plans synchronizing in-theater U.S. nuclear deterrence operations with the actions of U.S. and allied conventional forces.

Recommendation: DoD should press ahead with implementation of CNI, with greater focus on combined (U.S. and Indo-Pacific allies) implementation efforts. The DoD should devote additional resources to preparing U.S. and allied forces to operate in radiologically contaminated environments by developing E&T initiatives to better equip general purpose forces to avoid and navigate through this type of contamination on a battlefield.

Recommendation: DoD should take steps to develop a team or program to carry out CNI TTXs with Indo-Pacific allies, building on the first TTX of this kind which took place in July 2024. These TTXs can play a key role in allowing U.S. and allied forces to better synchronize U.S. nuclear forces and U.S. and allied conventional forces in combined operations. This can include specific mission sets focused on holding China's theater-range, dual-capable forces at risk and limiting their ability to support PLA conventional operations. These efforts will ensure U.S. and allied forces understand how to counter China's mixed conventional-nuclear forces and fight through any form of tactical nuclear employment.

Finding: China is dismissive of the U.S. extended deterrence posture in the Indo-Pacific. It considers the absence of any U.S. analogue to its theater-range, dual-capable forces as granting it an edge in manipulating regional escalation dynamics. In a potential future Indo-Pacific conflict, China hopes to leverage U.S. and allied decision-maker concerns over in-theater nuclear strikes to limit or prevent opposition to its efforts to use force to resolve regional disputes. Further, the U.S. nuclear enterprise is not positioned to rapidly produce weapons necessary to support the future nuclear deterrence force.

Recommendation: DTRA's Strategic Integration Directorate should seek to broaden and deepen its relationship with the Department of Energy/National Nuclear Security Administration's (DOE/NNSA) Office of Policy and Strategic Planning (NA-1.1) so that it can assist the latter in fully understanding how to best support evolving Command deterrence and CWMD requirements. After a generation of focus on stockpile stewardship, DOE/NNSA and the National Nuclear Laboratories are working to transition their programs and personnel to support a nuclear deterrence force that has new and different requirements for its delivery systems, weapons, and enabling systems and technologies. NNSA leadership is keenly interested in making S&T contributions (in addition to nuclear weapons) to help DoD meet present and future integrated deterrence needs. DTRA's Strategic Integration Directorate

and NNSA NA-1.1 (together with sister components, as relevant) could usefully explore areas to broaden and deepen the DTRA/NNSA-National Nuclear Laboratory relationship to help the latter understand how to best support evolving Command deterrence and CWMD requirements.

Recommendation: For nuclear-capable forces currently under development (B-21 and SLCM-N), DoD should develop strategic communications campaigns to signal to both China and U.S. Indo-Pacific allies that these capabilities will strengthen the U.S. regional extended deterrence/allied assurance posture. DoD should also consider various delivery systems (e.g., a future nuclear-capable MRBM/IRBM that could be deployed to the Indo-Pacific) and weapons storage options (e.g., constructing one or two WSAs in theater) to further bolster the U.S. nuclear footprint in the region.

Recommendation: DoD should direct USINDOPACOM, U.S. Strategic Command (USSTRATCOM), U.S. Transportation Command (USSTRANSCOM), and other Commands to carefully align a range of plans requiring sophisticated coordination and sequencing of conventional forces, nuclear forces, and various supporting elements. Integrated planning is broadly recognized as an inherently difficult and complex task, especially when attempting to synchronize conventional and nuclear-capable forces. Given China's determination to leverage its in-theater nuclear forces on behalf of conventional warfighting campaigns, however, it is critically important for the DoD to avoid stovepiping between "conventional," "nuclear," and "deterrence/CWMD" planning considerations. DTRA is acutely aware there is no easy solution to addressing the historical and institutional reasons for these divisions. Recent Joint Staff efforts to coordinate various planning processes to realize important integrated deterrence objectives, however, are making progress to overcome these hurdles. Additional DTRA support (to include from its Strategic Integration, Research and Development, and Nuclear Enterprise Directorates) to OSD and the Joint Staff can provide critical assistance to breaking down any artificial barriers preventing DoD plans from fully addressing the PLA as a combined conventional-nuclear threat.

Finding: China remains firmly opposed to arms control talks and expressly rejects the U.S. approach to risk reduction. It has little incentive to discuss any limits to its theater-range, dual-capable delivery systems. Chinese SMEs, however, may be open to limited discussions on crisis management.

Recommendation: DTRA's On-Site Inspection and Building Capacity Directorate should develop an E&T initiative focused on the potential monitoring and verification activities of a notional future U.S.-China nuclear arms control treaty that includes an OSI regime. By researching, planning, and conducting mock exercises to better understand a range of potential challenges associated with inspecting China's nuclear forces (and hosting reciprocal inspections), DTRA OB can preserve critical OSI expertise and skill sets important to any future nuclear arms control negotiations. This initiative can also identify issues for the U.S. Government Interagency (USG IA) to consider within future efforts to re-engage China—or other nuclear states—on arms control, strategic stability, or other diplomatic initiatives that may include U.S. proposals on various forms of increased transparency.

Recommendation: DoD should propose the USG IA assess the possible merits of an Indo-Pacific "dual track" (diplomacy/deterrence) approach to addressing the challenge posed by China's theater-range, dual-capable delivery systems. The approach could borrow from, but also update, the U.S./NATO dual track strategy responding to the threat posed by Soviet SS-20 missiles to the United States' European allies in the 1980s. The strategy convinced Soviet leaders to accept arms control talks leading to the Intermediate-range Nuclear Forces Treaty.

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- ¹ For a detailed discussion and description of the concept of potential adversary “theories of victory,” see works by Dr Brad Roberts, Director of Lawrence Livermore National Laboratory’s Center for Global Security Research (LLNL CGSR). Brad Roberts, *On Theories of Victory, Red and Blue*, Livermore Papers on Global Security, #7 (Livermore, CA: Lawrence Livermore National Laboratory Center for Global Security Research, June 2020).
- ² Department of Defense (DoD), *Military and Security Developments Involving the People’s Republic of China: Annual Report to Congress 2021* (Washington D.C.: DoD, 2021): 61.
- ³ Brad Roberts, *On Theories of Victory, Red and Blue*, Livermore Papers on Global Security, #7 (Livermore, CA: Lawrence Livermore National Laboratory Center for Global Security Research, June 2020): 3-4, 15-18.
- ⁴ Department of Defense (DoD), *Military and Security Developments Involving the People’s Republic of China: Annual Report to Congress 2021* (Washington D.C.: DoD, 2021): 109.
- ⁵ David C. Logan and Phillip C. Saunders, *Discerning the Drivers of China’s Nuclear Force: Models, Indicators, and Data*, NDU INSS Center for the Study of Chinese Military Affairs China Strategic Perspectives #18 (Washington D.C.: NDU Press, July 2023): 12-13.
- ⁶ Gordon Arthur, “Why China Axed the Strategic Support Force and Reshuffled the Military,” *DefenseNews.com*, 26 April 2024, <https://www.defensenews.com/global/asia-pacific/2024/04/26/why-china-axed-the-strategic-support-force-and-reshuffled-the-military/>.
- ⁷ James Palmer, “China Replaces Top PLA Rocket Force Commanders,” *Foreign Policy*, 1 August 2023, <https://foreignpolicy.com/2023/08/01/china-pla-rocket-force-purge-corruption-generals-xi/>.
- ⁸ Within this report, “tactical” nuclear strikes refers to the employment of sub-strategic (i.e., less than 5,500 km range) delivery systems for the purpose of realizing battlefield effects. Use of the term often also denotes use of a warhead with a smaller yield than warheads typically mated to strategic delivery systems.
- ⁹ “Additional PRC military writings as of 2017 noted ... tactical nuclear weapons with high hit precision and smaller yield would be effective in lowering the cost of war. Such discussions provide the doctrinal basis for limited nuclear employment on the battlefield, suggesting PRC nuclear thinkers could be reconsidering their long-standing view that nuclear war is uncontrollable.” Department of Defense, *Military and Security Developments Involving the People’s Republic of China: Annual Report to Congress 2023* (Washington DC: DoD, October 2023): 112.
- ¹⁰ *Ibid.*, 109.
- ¹¹ Sam Campbell, “Army Updates CBRN Arsenal with New Radiological Detectors,” U.S. Army press release, 19 December 2019, https://www.army.mil/article/231194/army_updates_cbrn_arsenal_with_new_radiological_detectors and “Kromek Secures Repeat Order for Wearable Nuclear Radiation Detector,” Defense Advancement press release, 11 January 2023, <https://www.defenseadvancement.com/news/kromek-secures-repeat-order-for-wearable-nuclear-radiation-detector/>.
- ¹² MOLINK, short for Moscow Link, is a communication hotline between the United States and Russia designed to ensure better communication between the two countries as part of an effort to prevent strategic miscalculation. MOLINK terminals at the Pentagon, White House, and State Department connect with terminals in Moscow to facilitate near-real time exchanges of information during a crisis to minimize the risk of unintended escalation. See David Vergun, “Hotline, Now 50 Years Old, Continues to Promote Dialog with the Russians,” *U.S. Army News Service*, 27 August 2013, https://www.army.mil/article/109986/hotline_now_50_years_old_continues_to_promote_dialog_with_russians
- ¹³ Brad Roberts, ed. *Taking Stock: U.S.-China Track 1.5 Nuclear Dialogue*. (LLNL CGSR: Livermore, CA, December 2020): 12, 30.

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