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### **The Chinese Nuclear Threat**

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In 2023, CIA Director William Burns observed that China's President Xi Jinping directed that China's military be prepared to invade Taiwan in 2027.<sup>1</sup> Noting this, Greg Weaver, who served in senior DoD positions, wrote that, "In addition to the ongoing conventional force modernization and expansion necessary to achieve this goal, China is engaged in the largest nuclear force buildup any country has pursued since the Cold War."<sup>2</sup> He continued, "China's nuclear forces potentially play both deterrence and warfighting roles in a Taiwan invasion scenario."<sup>3</sup>

#### **China's Nuclear Strategy**

In 2022, DoD's China military power report stated that, notwithstanding its announced "no first use" (NFU) policy, "...China's nuclear strategy probably includes consideration of a nuclear strike in response to a nonnuclear attack threatening the viability of China's nuclear forces or C2, or that approximates the strategic effects of a nuclear strike. Beijing probably would also consider nuclear use to restore deterrence if a conventional military defeat gravely



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threatened PRC [People's Republic of China] survival."<sup>4</sup> In 2023, the bipartisan Congressional Strategic Posture Commission concluded the same.<sup>5</sup> This recognition was long overdue.

However, an important insight missing from DoD's assessment is that China may use nuclear weapons in support of an invasion of Taiwan. It will likely use nuclear threats to deter the United States and others from assisting Taiwan, and since an amphibious invasion is extremely difficult, nuclear strikes, including nuclear EMP, might be used to reverse a defeat.

China expert Colonel (Ret.) Dr. Larry Wortzel pointed out that a careful analysis of China's NFU language indicated "...if China launched a surprise nuclear attack tomorrow, it would still not be the first nation to use nuclear weapons," and, thus, the attack would not violate its NFU policy since the United States used nuclear weapons first in World War II.<sup>6</sup>

The evidence is more than linguistic. In 1996, in a statement later walked back, China's U.N. Ambassador Sha Zukang said that, since Taiwan was part of China, "the policy of no first use does not apply."<sup>7</sup> A 2004 officer training book of China's Second Artillery (now the Rocket Force), stated, "The basic assault force" of several missile brigades must meet "nuclear counter strike requirements, and be able to assure *first strike effectiveness*."<sup>8</sup> (Emphasis added). In 2005, Taiwanese Colonel Wen Shang-hsien said that China's policy allowed for "a preemptive strike strategy" with China's use of "its tactical nuclear weapons in regional wars if necessary."<sup>9</sup> In 2011, Japan's *Kyodo News Agency* reported that it obtained classified Chinese documents which said China "...will adjust the nuclear threat policy if a nuclear missile-possessing country carries out a series of air strikes against key strategic targets in our country with absolutely superior conventional weapons."<sup>10</sup>

China's nuclear strategy is important because: 1) China is rapidly modernizing and expanding its nuclear and conventional capabilities; 2) China poses the threat of a near-term attack on Taiwan; 3) there is a similarity between China's nuclear strategy and Putin's dangerous policies; and, 4) the democracies are facing growing collaboration among aggressive dictatorships – China, Russia, Iran and North Korea.

In 2024, China's Communist Party Central Committee pledged to "speed up the development of strategic deterrence forces."<sup>11</sup> The Biden Administration recognizes that China "will be a peer to the United States in virtually every relevant military and economic domain," including nuclear weapons.<sup>12</sup> Unfortunately, DoD may be underestimating China's nuclear threat and is doing little in the near term to counter it.

### **The DoD's Assessment of China's Nuclear Threat**

The annual DoD China military reports are clearly the most authoritative open source publications available but they have a poor track record on China's nuclear weapons. The 2022 and 2023 DoD reports estimated China had 500+ "operational" nuclear warheads in May 2023, growing to 1,000+ "operational" warheads in 2030, and is "on track to exceed previous projections," i.e., about 1,500 warheads in 2035.<sup>13</sup> If one accepts the 2022 and 2023 DoD warhead numbers as ground truth, all previous DoD reports were underestimates.



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The Federation of American Scientists (FAS), a left-of-center NGO, is currently echoing the DoD report warhead numbers.<sup>14</sup> While the DoD and the FAS appear to be postulating the same numbers, the FAS currently credits China with 128 ICBMs while the DoD assesses 350.<sup>15</sup> In light of this disparity, the DoD warhead estimate should be much higher.

The numbers presented in the DoD and FAS reports appear to undercount the Chinese nuclear arsenal because there seems to be an analytical disconnect between the rapid visible growth in Chinese delivery systems and the slower assessed growth in deployed nuclear warheads. The DoD assessed only 500+ Chinese nuclear warheads in May 2023 despite crediting China with 350 ICBMs, two types of multiple warhead ICBMs and 72 deployed SLBMs, which alone add up to 422 warheads without even assuming a single MIRVed missile. This leaves only about 100 assessed warheads to cover China's MIRVed ICBMs, MIRVed SLBMs, non-strategic nuclear warheads (medium- and intermediate-range ballistic missiles), and air-delivered nuclear weapons. Any one of these categories could push China's number above 500+ and in combination the total should be substantially higher. Questionable assumptions in both the DoD and FAS reports include: 1) a large number of China's ICBM silos are complete but empty; 2) less capable DF-31 ICBMs are probably being deployed in the new silos; 3) China's numerous H-6K bombers are not nuclear-capable; 4) China lacks nuclear-capable short-range ballistic missiles; and, 5) China has no nuclear-capable cruise missiles. These assumptions contradict many open sources including statements by senior U.S. generals and admirals and, in some cases, previous DoD China reports which indicate that China has a MIRV capability.<sup>16</sup> Indeed, a 2018 DoD Fact Sheet and a 2023 Japanese White Paper indicated that China had nuclear-capable cruise missiles.<sup>17</sup> In 2021, then Vice Chairman of the JCS General John Hyten said China was rapidly building nuclear cruise missiles.<sup>18</sup>

These assumptions appear to continue in DoD's warhead projection for 2030 and 2035 except for MIRVing. The 2023 DoD report credited China's DF-41 ICBM with up to three warheads and five warheads for the DF-5 ICBM.<sup>19</sup> General Hyten and then STRATCOM Commander Admiral Charles Richard assessed the DF-41 with 10 warheads and the DF-5 reportedly can carry 10.<sup>20</sup> In 2023, STRATCOM Commander General Anthony Cotton revealed a MIRVed version of the DF-31.<sup>21</sup> In 2020, the Defense Intelligence Agency (DIA) reported the JL-3 SLBM carried "multiple warheads."<sup>22</sup>

Many of the differences among the alternative estimates of the growth of China's nuclear warheads are based upon different assessments of the number of warheads on Chinese MIRVed ICBMs and SLBMs. These are illustrated in the following chart:



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MAXIMUM WARHEAD LOAD FOR CHINA'S MULTIPLE WARHEAD (MIRVed) MISSILES				
Type Estimates	DoD	FAS	Alternative Estimates	Sources for Alternative
DF-5	5	5	6	Fisher
DF-41	3	3	10	General Hyten, Admiral Richard, Liberation Army Rocket Force
DF-45/DF-51	n/a <sup>a</sup>	n/a <sup>a</sup>	7-14	Gertz, Fisher, other press reports
DF-31A	1 <sup>b</sup>	1	3? <sup>c</sup>	General Cotton <sup>d</sup>
JL-2A	1 <sup>b</sup>	1	3	People's Liberation Army Rocket Force, Asia press reports
JL-3	1 <sup>b</sup>	"multiple warheads" <sup>e</sup>	3-10	Fisher, Defense Intelligence Agency says "multiple warheads"

- a Does not mention the DF-45/DF-51. May be one type of missile or two.
- b Does not list it as a MIRVed missile.
- c No nation has built a MIRVed missile that carries less than three warheads because of the weight of the MIRV bus.
- d General Cotton indicated it was MIRVed but gave no warhead number.
- e While the FAS attributes "multiple warheads" to the JL-3, it counts it as one in its warhead chart.

Regarding the actual expected growth in China's nuclear warheads through 2035, the following chart compares the DoD and FAS estimates of Chinese nuclear weapons numbers from 2023 through 2035 with the alternative credible estimates.





ESTIMATES OF CHINESE NUCLEAR WEAPONS NUMBERS			
Year	DoD	FAS	Alternative Estimates
2023	500+ <sup>a</sup>	500 <sup>c</sup>	1,570-2,206 – Fisher (2023) <sup>b</sup> 976 – Yeaw (2024)
2030	1,000+ <sup>a</sup>	n/a <sup>d</sup>	1,000-1,500 – Creeden (2023)
2035	~1,500	n/a <sup>d</sup>	6,108 – 6,734 – Fisher (2023) <sup>a</sup> 3,390 – 3,740 – Howe (2019) 3,584 – Yeaw (2024) <sup>e</sup>

a “Total Operational.”

b Strategic only. The numbers are calculated using open source numbers from both Chinese and Western sources concerning the MIRV potential of Chinese ICBMs, SLBMs and the nuclear ALCM delivery potential of Chinese bombers.

c Of the 500, the FAS says 440 are “operational.”

d The 2024 FAS report discusses the DoD numbers but does not explicitly support or deny them.

e Estimates are for 2034. See, Dr. Christopher Yeaw, “Geopolitical Nuclear Force Context with a Focus on China,” *Triad Symposium*, Louisiana State University Shreveport, June 20, 2024.

DoD rightfully complains about the lack of Chinese transparency. Yet, in the rare instances when China was transparent, DoD ignored what it said. In 2017, the People’s Liberation Army Rocket Force (PLARF) indicated that the DF-41 had a range of 14,000-km and three warhead options: 1) one 1,600-kg warhead of 5.5 megatons; 2) six 250-kg warheads of 650 kilotons; or, 3) 10 165-kg warheads of 150-kt.<sup>23</sup> The JL-2A SLBM was described as having a range of 12,000-km and either one warhead of 250 kilotons or three warheads of 60 kilotons.<sup>24</sup>

Even if the DoD’s warhead projections are correct, China will achieve rough numerical parity with the United States in the mid-2030s.<sup>25</sup> If the Defense Department is wrong, China could achieve superiority – several thousand nuclear weapons – within a few years.

### China’s Nuclear Weapons Technology and Production Capability

China’s nuclear weapons technology is almost comparable to the United States and Russia.<sup>26</sup> This is not apparently being assumed in the DoD’s estimates of Chinese warheads. China conducted about the same number of nuclear tests as the United Kingdom. There is evidence China has covertly continued nuclear testing after its announced end in 1996.<sup>27</sup>



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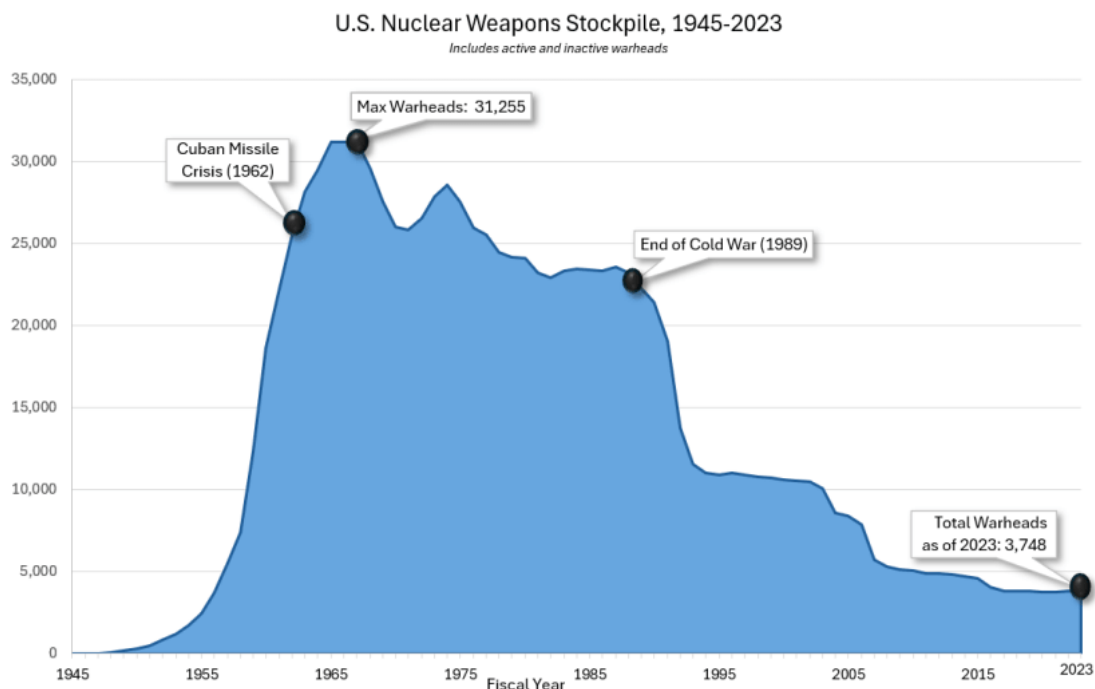
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The 1999 Report of the Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China (the “Cox Committee”) revealed that China “...stole classified information on every currently deployed [nuclear warhead on] U.S. Intercontinental ballistic missile (ICBM) and submarine-launched ballistic missile (SLBM).” which may include “classified U.S. nuclear weapons computer codes....”<sup>28</sup> (Emphasis in the original). *The New York Times* (supported by the Cox Committee findings) reported China’s DF-31 ICBM warhead is based on the advanced U.S. W-88 design.<sup>29</sup> Moreover, China reportedly obtained “clever” nuclear weapons design concepts from French scientists.<sup>30</sup> China is cooperating with Pakistan, North Korea and Russia on nuclear weapons.

If China’s warheads are derived from the W-88 or another advanced U.S. nuclear weapon, because of their light weight, China’s MIRVed missiles should carry at least twice as many warheads as estimated by the DoD.

Since 2020, the DoD’s reports have estimated an increase of about 100 Chinese nuclear weapons per year, declining to about 70 per year through 2030 and returning to about 100 per year between 2030 and 2035. Production of 100 per year may be based on a *ten-year-old* estimate of Chinese fissile material “pit” (the core of a nuclear weapon) production capability.<sup>31</sup> Yet, this does not explain the drop to 70 per year.

Even two or three shift pit production and/or an earlier start and stockpiling of pits, could allow a faster nuclear buildup than DoD is projecting. Moreover, China’s pit production capability could have been increased to allow timely arming of its new MIRVed missiles. For example, U.S. nuclear weapons production increased from a handful in 1945 to thousands per year by 1958, as is illustrated in the following Department of Energy chart.<sup>32</sup>





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There is evidence that China has sufficient fissile material to arm its new MIRVed missiles promptly. In 2019, noted nuclear expert James R. Howe concluded that China had enough fissile material for 3,878 nuclear warheads.<sup>33</sup> In 2021, Dr. John A. Swegle and Dr. Christopher Yeaw, both noted experts on nuclear weapons, estimated China had enough plutonium from its military reactors for 1,300 nuclear weapons.<sup>34</sup> (In 2024, Yeaw said, “We could be No. 3 [in nuclear weapons] by 2034.”<sup>35</sup>) In 2021, former DoD Deputy Assistant Henry Sokolski estimated that China could produce 1,270 warheads by 2030, and, “If Beijing instead chooses to develop single-stage nuclear weapons using boosting, highly enriched uranium (HEU) or composite plutonium-HEU warhead designs, it could easily exceed this number by a factor of two or more.”<sup>36</sup> He said that China could covertly construct sufficient plutonium processing and uranium enrichment facilities to produce thousands of nuclear weapons by 2030, which he contrasted to intelligence estimates predicting growth to 300-600 weapons.<sup>37</sup>

The 2024 FAS report acknowledged that China: 1) is increasing its fissile material production; 2) is building two breeder reactors; and, 3) could use civil reactor-produced plutonium in weapons.<sup>38</sup> China has not reported the amount of plutonium it has separated since 2017.<sup>39</sup>

### China’s Nuclear Delivery Vehicles

China has a nuclear force sufficient to carry thousands of warheads. The following chart from the October 2023 DoD China military report provides estimates of the number of Chinese land-based nuclear missile launchers and missiles.<sup>40</sup> Military journalist Bill Gertz writes that most of these missiles are dual capable.<sup>41</sup>

CHINA'S ROCKET FORCE			
System	Launchers	Missiles	Estimated Range
ICBM	500	350	>5,500 km
IRBM	250	500	3,000-5,500 km
MRBM	300	1,000	1,000-3,000 km
SRBM	200	1,000	300-1,000 km
GLCM	150	300	>1,500 km

The chart indicates that through the level of IRBMs, China has two-to-five reload missiles per launcher. Yet, it assesses 150 empty ICBM launchers and apparently no reload missiles for



mobile ICBMs. This creates the possibility of considerable undercounting in DoD's estimate of 500+ warheads in May 2023.

China expert Richard Fisher says Chinese sources report the development of a new mobile ICBM "[s]ometimes called the DF-45 or DF-51, [and] it is clearly intended to outperform the DF-41."<sup>42</sup> Gertz reported, "The DF-45 would have a takeoff weight of 112 tons and a payload weighing 3.6 tons and be armed with seven 650-kiloton warheads."<sup>43</sup> It is unclear whether the DF-45/DF-51 is one ICBM or two.

China reportedly has a rail-mobile DF-41 program.<sup>44</sup> Fisher projects up to 100 possible rail-mobile DF-41s by 2030 or soon after.<sup>45</sup>

Except for the silo-based ICBMs, China's land-based missiles are mobile, which are very difficult to count by National Technical Means. In addition, there is the great concealment potential of China's "Underground Great Wall," 5,000 km of missile tunnels and thousands of other underground facilities. Thus, the DoD numbers could be low.

China may be building a ballistic missile submarine force about as large as that of the United States or Russia. The 2023 DoD report said: 1) China had "six operational TYPE 094 JIN-class SSBNs" armed with up to 12 JL-2 or JL-3 SLBMs; 2) that the "next generation SSBN, the TYPE 096 is expected to enter service the late 2020s or early 2030s," and is "probably intended to field MIRVed SLBMs"; and, 3) the 096 will operate concurrently with the 094.<sup>46</sup> It does not estimate the number of 096 submarines. Fisher predicts possibly six 096s with 14 missiles each and notes that Chinese sources say three-to-ten warheads for the JL-3.<sup>47</sup> In 2019, Gertz reported a JL-3 test with a hypersonic vehicle.<sup>48</sup> The pattern of Chinese modernization suggests a successor to the JL-3 SLBM – either an improved version or a new missile for the 096 submarine.

DoD is assessing China's H-6N bomber, carrying nuclear-capable 3,000-km range DF-21 ballistic missiles, as its only nuclear-capable bomber.<sup>49</sup> The assumption of no nuclear-capable cruise missiles results in zero nuclear warheads counted on China's numerous H-6K bombers. Yet, the 2019 DoD report noted, "Since at least 2016, Chinese media have been referring to the H-6K as a dual nuclear-conventional bomber."<sup>50</sup> Moreover, in July 2024, China released a photograph of the H-6K carrying four reportedly nuclear-capable YJ-21 1,500-km range ballistic missiles.<sup>51</sup>

The 2023 DoD report states that China is "...developing new medium- and long-range stealth bombers to strike regional and global targets."<sup>52</sup>

Fisher credits China with 150 H-6 bombers in 2023, increasing to 250 bombers in 2035, including the H-20 stealth heavy bomber.<sup>53</sup> He assesses their potential as 950 nuclear ALCMs in 2023, growing to 1,700 in 2035.<sup>54</sup> Hence, DoD may be substantially undercounting Chinese bomber nuclear weapons.

### **China's Non-Strategic Nuclear Weapons**

In June 2024, Captain (Ret.) James Fanell, former Senior Intelligence Officer for the U.S. Pacific Fleet, told Congress that, "The rapid, yet still opaque growth of the PRC's nuclear arsenal may very well exceed the U.S.'s by 2030, if not sooner. Beijing already possesses more tactical





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nuclear weapons and theater forces than does the U.S.”<sup>55</sup> Reportedly, no U.S. nuclear weapons are deployed in the Indo-Pacific theater.<sup>56</sup> The United States is ill-prepared to handle nuclear escalation.<sup>57</sup>

In February 2024, STRATCOM Commander General Anthony Cotton said China “...has approximately 1,000 medium- and intermediate-range dual-capable...ballistic missiles...”<sup>58</sup> In addition, China has a number of nuclear-capable short-range missiles. DoD’s apparent assumption that China has no nuclear-capable cruise missiles (explicitly stated in the 2024 FAS report)<sup>59</sup> can result in dramatic undercounting. China’s armed forces have large numbers of cruise missiles. The DoD is apparently ignoring the reports of Chinese development of nuclear artillery which includes a declassified CIA document describing a possible 1995 Chinese nuclear-artillery test.<sup>60</sup>

The 2023 DoD report credits China with low-yield nuclear weapons and with precision conventional and nuclear strike.<sup>61</sup> It notes that Chinese military writings state “...tactical nuclear weapons with high hit precision and smaller yield would be effective in lowering the cost of war.”<sup>62</sup> The high accuracy and large throw-weight necessary for conventional strike missiles allow the construction of large numbers of low-yield nuclear missiles with small amounts of fissile material. Yet, the DoD apparently assesses only a small number of Chinese non-strategic nuclear weapons.

Retired Russian generals assess that China had up to 1,600-1,800 nuclear weapons.<sup>63</sup> In 2012, Colonel General (Ret.) Viktor Yesin wrote China had up to 40 tons of HEU and 10 tons of plutonium, enough for “about 3,600 nuclear warheads.”<sup>64</sup> He said that China has five- to 20-kiloton nuclear warheads for the DF-15A, the DF-15B, the DF-11A, the DH-10 cruise missile and fighter aircraft.<sup>65</sup> Yesin repeated this in 2016.<sup>66</sup> In 2014, Russian expert Alexi Arbatov wrote “authoritative Russian assessments” credit China with “more than 1,100 [nuclear] warheads,” including “570 gravity bombs and air-launched cruise missiles on 400 airplanes,” and “nuclear warheads on 204 land-based tactical ballistic missiles...”<sup>67</sup> Notably, these assessments long predate the Chinese nuclear buildup.

## Conclusion

There is no dispute China is dramatically increasing its nuclear forces. DoD has belatedly recognized that China may use nuclear weapons in circumstances that are more permissive than its supposed “no first use” policy. Hence, the Asia-Pacific theater will increasingly face possible Chinese nuclear escalation.

The two most frequently cited estimates of Chinese nuclear warheads – the DoD’s China and the FAS’ China nuclear reports – appear to underestimate significantly China’s nuclear force. Basing projections of Chinese nuclear weapons numbers on the assumption that China is building ICBM launchers faster than it is building missiles, and building missiles much faster than warheads, has the potential for considerable undercounting, particularly in DoD’s estimate of 1,500 nuclear warheads in 2035. Indeed, a 2023 RAND Corporation analysis



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concluded that small, poor and technically backward North Korea was aiming at 300-500 nuclear weapons.<sup>68</sup>

The DoD rightly places emphasis on the need for Chinese nuclear transparency. Yet, in the rare instances when China was transparent, DoD ignored what it said. This includes the 2017 PLARF announcement of the large MIRV capability of China's DF-41 ICBM. The apparent DoD assumption of no Chinese nuclear-capable cruise missiles is particularly egregious.

The most costly aspect of a nuclear deterrent are the delivery vehicles. China already has enough modern systems to deploy thousands of nuclear weapons. This will increase as China deploys 096 SSBNs, more bombers, probably more ICBMs, improved strategic missiles with better accuracy and more warheads, and a variety of dual-capable non-strategic missiles.

China's military buildup introduces new challenges for U.S. deterrence strategy. China's nuclear force may expand to thousands of warheads within a few years. In 2023, CIA Director William Burns noted that China's President Xi Jinping directed that China's military be prepared to invade Taiwan in 2027. Chinese nuclear weapons could play a supporting role in a Taiwan contingency. Current U.S. nuclear policy is not focused on deterring a near-term conflict and is ill-prepared for the threat of theater nuclear escalation.

<sup>1</sup> Greg Weaver, *The Role of Nuclear Weapons in a Taiwan Crisis*, Atlantic Council, November 2023, p. 2, available at <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/the-role-of-nuclear-weapons-in-a-taiwan-crisis/>.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid., p. 5.

<sup>4</sup> Department of Defense, *Military and Security Developments Involving the People's Republic of China 2022* (Washington, D.C.: U.S. Department of Defense, 2022), p. 95, available at <https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

<sup>5</sup> Congressional Commission on the Strategic Posture of the United States, *America's Strategic Posture, The Final Report of the Congressional Commission on the Strategic Posture of the United States* (Alexandria, VA: Institute for Defense Analyses, 2023), p. 12, available at <https://www.ida.or-/media/feature/publications/a/am/americas-strategic-posture/strategic-posture-commission-report.ashx>.

<sup>6</sup> Larry Wortzel, "Opinion: The Trouble With China's Nuclear Doctrine," *Jane's Defence Weekly*, February 22, 2006, available at [https://www.researchgate.net/publication/294129344\\_OPINION\\_-The\\_trouble\\_with\\_China%27s\\_nuclear\\_doctrine](https://www.researchgate.net/publication/294129344_OPINION_-The_trouble_with_China%27s_nuclear_doctrine).

<sup>7</sup> Liping Xia, "China's Nuclear Doctrine: Debates and Evolution" (Washington, D.C.: Carnegie Endowment for International Peace, June 30, 2016), available at <https://carnegieendowment.org/research/2016/06/chinas-nuclear-doctrine-debates-and-evolution?lang=en>.

<sup>8</sup> *The Science of the Second Artillery Campaigns* (Beijing: Press of the PLA, March 2004), pp. 119-120, 150.

<sup>9</sup> Cited in Mark B. Schneider, "The Future of the U.S. Nuclear Deterrent," *Comparative Strategy*, Vol. 27, No. 4, July 1, 2008, p. 352, available at <http://dx.doi.org/10.1080/01495930802358539>.

<sup>10</sup> "China military said to consider pre-emptive nuclear strike in event of crisis," *BBC Monitoring Newsfile*, June 5, 2011, available at <https://dialog.proquest.com/professional/professionalnewsstand/docview/822370222/fulltext/190881A03A1200A>



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<sup>11</sup> Hayley Wongin and Amber Wang, “China’s third plenum shows it is ‘not in the mood’ to slow down on nuclear arms,” *South China Morning Post*, July 24, 2024, available at <https://www.newsweek.com/china-makes-nuclear-weapons-demands-us-1928848>.

<sup>12</sup> “Nuclear Threats and the Role of Allies’: Remarks by Acting Assistant Secretary of Defense for Space Policy Dr. Vipin Narang at CSIS” (Washington, D.C.: The Department of Defense, August 1, 2024), available at <https://www.defense.gov/News/Speeches/Speech/Article/3858311/nuclear-threats-and-the-role-of-allies-remarks-by-acting-assistant-secretary-of/>.

<sup>13</sup> Department of Defense, *Military and Security Developments Involving the People’s Republic of China 2023* (Washington, D.C.: Department of Defense, October 2023), pp. VIII, 55, 59, 67, 104, 110, 111, 188, available at <https://media.defense.gov/2023/Oct/19/2003323409/-1/-1/1/2023-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

<sup>14</sup> Hans M. Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight, “Chinese nuclear weapons, 2024,” *Bulletin of the Atomic Scientists*, January 15, 2024, pp. 50, 53, 62, available at <https://thebulletin.org/premium/2024-01/chinese-nuclear-weapons-2024/>.

<sup>15</sup> *Ibid.* And, *Military and Security Developments Involving the People’s Republic of China 2023*, op. cit., p. 67.

<sup>16</sup> Mark B. Schneider, “Will the Pentagon Ever Get Serious About the Size of China’s Nuclear Force?,” *RealClearDefense*, December 15, 2022, available at [https://www.realcleardefense.com/articles/2022/12/15/will\\_the\\_pentagon\\_ever\\_get\\_serious\\_about\\_the\\_size\\_of\\_chinas\\_nuclear\\_force\\_870335.html](https://www.realcleardefense.com/articles/2022/12/15/will_the_pentagon_ever_get_serious_about_the_size_of_chinas_nuclear_force_870335.html).

<sup>17</sup> Kristensen, Korda, Johns, and Knight, “Chinese nuclear weapons, 2024,” op. cit., p. 69.

<sup>18</sup> John A. Tirpak, “New Threats Demand Nuclear Modernization,” *Air and Space Forces.com*, March 2, 2021, available at <https://www.airandspaceforces.com/new-threats-demand-nuclear-modernization/>.

<sup>19</sup> *Military and Security Developments Involving the People’s Republic of China 2023*, op. cit., pp. 67, 107.

<sup>20</sup> Schneider, “Will the Pentagon Ever Get Serious About the Size of China’s Nuclear Force?,” op. cit.; and, Bill Gertz, “China Tests Missile With 10 Warheads,” *Free Beacon.com*, January 31, 2007, available at <https://freebeacon.com/national-security/china-tests-missile-10-warheads/>.

<sup>21</sup> General Anthony Cotton, “STATEMENT OF ANTHONY J. COTTON COMMANDER UNITED STATES STRATEGIC COMMAND BEFORE THE SENATE COMMITTEE ON ARMED SERVICES 9 MARCH 2023,” p. 6, available at <https://www.armed-services.senate.gov/imo/media/doc/2023%20USSTRATCOM%20Congressional%20Posture%20Statement%20-%20SASC.pdf>.

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