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# THE REAL NUCLEAR BALANCE

## How Much Is Too Little?



Dr. Peter Vincent Pry Task Force on National and Homeland Security December 7, 2020

#### **Key Judgments**

--If the U.S. under a Biden Administration embarks on re-thinking the nuclear Triad, perhaps it will also be time to re-think other fundamentals driving U.S. nuclear strategy and policy, like how we measure "the nuclear balance."

--"Bean-counting" numbers of nuclear weapons is an obsessive focus of the U.S. intelligence community, policymakers, and academics, that is fundamental to U.S. assessments about the likely and relative nuclear threat from Russia, China, and North Korea.

--Yet "bean-counting" is not really an objective measure of the nuclear balance, but a subjective fixation of a U.S. (and Western) strategic culture dominated by arms control theory, that requires omniscience about U.S. and adversary nuclear arms in order for them to be limited and so supposedly "controlled."

--Potential nuclear adversaries, unlike the United States, do not accurately report their nuclear inventories, as these are regarded as vital state secrets.

--Intelligence, arms control, and academic communities pretend to have omniscience about the numbers of nuclear weapons deployed by adversaries, despite often being wrong, and despite extraordinary efforts by Russia, China, and North Korea to conceal their nuclear forces.

--Prudent policymakers and military planners should have low-confidence in intelligence community and other static estimates of the nuclear balance—and prepare for the worst.

--The strategic nuclear balance is best assessed by force-on-force exchange modeling under the widest range of plausible scenarios, simulating various possible nuclear wars.

--A Biden Administration that thinks like HASC Chairman Adam Smith may well reject all paradigms for assessing the nuclear balance and worry not at all about significant disparities and potential vulnerabilities.

--Dismantling the Triad for a "Minimum Deterrent" Monad of SSBNs would be an unprecedented deep reduction of U.S. nuclear capabilities to dangerously deficient levels, breaking radically with consensus strategic thinking that enabled the U.S. to prevail in the Cold War while deterring a thermonuclear World War III.

--The West has long nurtured in its universities and politics a radical minority cult that damns the United States for inventing the atomic bomb, the fruit of a social-political system they condemn as fundamentally evil. For the original sin of being itself, America must atone and suffer. 75 years after Hiroshima and Nagasaki, America's nihilists are on the threshold of getting their wish.

#### Introduction

A President Joe Biden is likely to revisit the Nuclear Posture Review and fundamentally reimagine the U.S. nuclear deterrent as a much smaller, less diverse, less capable, and less expensive force.

Rep. Adam Smith, Chairman of the House Armed Services Committee (HASC), presently the most powerful Democrat shaping U.S. national security policy, speaking before the Center for a New American Security recently opined:

What I want us to have is a nuclear arsenal that is sufficient to deter anyone from thinking that it makes sense to start a nuclear war. We have a nuclear arsenal that still envisions 'winning a nuclear war'...That's what I find insane. It's worth having the debate to envision what our nuclear deterrence policy should look like and what do we need to build to achieve it?"<sup>1</sup>

In March 2019, Chairman Smith held hearings before the HASC that called for unilaterally banning U.S. ICBMs and strategic bombers, replacing the nuclear Triad of land-based missiles, bombers, and ballistic missile submarines (SSBNs) with a Monad of SSBNs reduced from 14 boats to 6 SSBNs. Radical anti-nuclear activists from such groups as Ploughshares, Union of Concerned Scientists, and Federation of American Scientists have testified before Congress as strategic "experts" advocating for such a posture of "Minimum Deterrence."<sup>2</sup>

Thus, the longstanding consensus among Democrats and Republicans that prevailed through the Cold War that the U.S. nuclear deterrent should be "second to none" appears to be broken.

If the U.S. under a Biden Administration embarks on re-thinking the nuclear Triad, perhaps it will also be time to re-think other fundamentals driving U.S. nuclear strategy and policy, like how we measure "the nuclear balance."

"Bean-counting" numbers of nuclear weapons is an obsessive focus of the U.S. intelligence community, policymakers, and academics, that is fundamental to U.S. assessments about the likely and relative nuclear threat from Russia, China, and North Korea. Yet "bean-counting" is not really an objective measure of the nuclear balance, but a subjective fixation of a U.S. (and Western) strategic culture dominated by arms control theory, that requires omniscience about U.S. and adversary nuclear arms in order for them to be limited and so supposedly "controlled."

Nor is "bean-counting" an accurate and reliable indicator of the nuclear threat, since potential nuclear adversaries, unlike the United States, do not accurately report their nuclear inventories, as these are regarded as vital state secrets. Nonetheless, "bean-counting" and arms control is such a

<sup>&</sup>lt;sup>1</sup> Abraham Mahshie, "HASC Chairman Foreshadows Change To Nuclear Posture And Modernization Delay If Biden Wins" Washington Examiner (November 3, 2020).

<sup>&</sup>lt;sup>2</sup> "Outside Perspectives on Nuclear Deterrence Policy and Posture" House Armed Services Committee (March 6, 2019).

strong strategic cultural imperative for the U.S. that estimates of the nuclear balance, that are probably largely fictional, are treated as gospel.

Perhaps it is time for a more mature and sophisticated approach to calculating the nuclear threat based on such metrics as adversary targeting requirements to achieve various damage goals against the United States—as is the focus in Moscow, Beijing, and Pyongyang.

#### The Nuclear Stockpiles

The press, both liberal and conservative press, and many equally uninformed Washington officials, think of the nuclear balance as the "nuclear stockpile" as estimated by the anti-nuclear Federation of American Scientists (FAS). According to FAS nuclear stockpile estimates, the U.S. has 5,800 weapons, Russia has 6,370 weapons, China has 320 weapons, and North Korea has 35.<sup>3</sup>

An enormous problem with measuring the nuclear balance by the "nuclear stockpiles" is that this includes thousands of U.S. weapons (over 4,300) that are not operational, are warehoused and retired, are awaiting dismantlement, have been cannibalized for spare parts, and would require months or years to be made operational, if possible at all. By counting non-operational U.S. weapons, the anti-nuclear FAS can greatly inflate U.S. nuclear strength relative to adversaries and inflate the global total of nuclear bombs FAS wants to ban.

Moreover, Russia, China, and North Korea's "nuclear stockpiles" are unknown to the U.S. Government and to FAS. Credible estimates vary greatly, sometimes by tenfold. For example:

China, according to a recent highly controversial DOD estimate, has only 200 nuclear weapons, making the anti-nuclear FAS estimate (320) look hawkish. Former senior DOD official, Dr. Mark Schneider, debunks the almost certainly erroneous DOD estimate and exposes DOD's history of underestimating China in a recent article. Schneider notes: Russian General Viktor Yesin in 2012 estimated China had enough fissile material for 3,600 nuclear warheads and built 1,600-1,800. Russian General Vladimir Dvorkin in 2012 estimated China had 1,600 nuclear weapons. A three-year study by former DOD analyst Phillip Karber assesses China could be hiding up to 3,000 nuclear warheads, including mobile missiles, in their Underground Great Wall.<sup>4</sup>

How can China have only 200 weapons, when they have deployed 32 DF-41 ICBMs capable of delivering up to 10-12 MIRVed warheads, which would give Beijing 320-384 warheads on the

<sup>&</sup>lt;sup>3</sup> Hans Kristensen and Matt Korda, "Status of World Nuclear Forces" (Federation of American Scientists: September 2020).

<sup>&</sup>lt;sup>4</sup> Office of the Secretary of Defense, *Security Developments Involving the People's Republic of China* (Annual Report to Congress: September 1, 2020). Dr. Mark Schneider "The Chinese Nuclear Threat" RealClearDefense (October 24, 2020). Phillip Karber, *Strategic Implications of China's Underground Great Wall* (Georgetown University: 2012). See also: "China May Have 1,600-1,800 Nuclear Munitions—Experts" Interfax (October 24, 2011). "Hunt for China's Secret Nukes: Obama Orders the Pentagon to Find Ways to 'Neutralize' Store of Up To 3,000 Nuclear Weapons" Daily Mail (January 8, 2013).

DF-41 ICBM alone?<sup>5</sup> China's "Underground Great Wall" comprising 5,000 kilometers of tunnels belonging to the PRC's Strategic Rocket Forces could conceal hundreds of mobile ICBMs.<sup>6</sup>

U.S. senior arms negotiator Marshall Billingslea said in October 2020 that Washington is trying to end China's "great wall of secrecy" about its nuclear weapons. "Billingslea contrasted the more than 100-page document the United States has released on nuclear strategy to the five paragraphs China has publicly released on its nuclear programs and strategy." While DOD recently estimates China has 200 operational nuclear weapons, Billingslea notes China has "as many as 2,000 intermediate-range ballistic and cruise missiles."<sup>7</sup>

Perhaps the truest thing ever said by FAS President Hans Kristensen is, "Only the Chinese Government knows how many nuclear weapons China has"—and this is also true of Russia and North Korea.<sup>8</sup>

#### New START

A more accurate representation of the nuclear balance is the number of operational warheads that can be delivered by missiles and bombers, limited by the New Strategic Arms Reduction Treaty (START) to 1,550 warheads for the U.S. and Russia. According to New START data as of September 1, 2020: the U.S. has 1,457 deployed warheads, and Russia declares 1,447 deployed warheads.<sup>9</sup>

However, Russia is notorious for violating arms control treaties and commitments. For example, Moscow is violating the Intermediate-range Nuclear Forces Treaty (deploying prohibited INF missiles), the Presidential Nuclear Initiative (cheating its way to a tenfold advantage over the U.S. in tactical nuclear weapons), and the Comprehensive Test Ban Treaty (developing advanced, new generation nuclear weapons).<sup>10</sup>

<sup>9</sup> "New START data as of 1 September 2020"

http://russianforces.org/blog/2020/10/new start data as of 1 september 1.shtml

<sup>&</sup>lt;sup>5</sup> Ibid, Schneider. "DF-41 (Dong Feng-41/CSS-X-20)" MissileThreat CSIS estimates 10 MIRVed warheads. "DF-41" en.wikipedia 10-12 MIRVed warheads. See; John Grady, "U.S. Working to End Chinese Secrecy Around Nuclear Capabilities" USNI (October 15, 2020).

<sup>&</sup>lt;sup>6</sup> Karber, Strategic Implications of China's Underground Great Wall, see footnote 4.

<sup>&</sup>lt;sup>7</sup> John Grady, "U.S. Working to End Chinese Secrecy Around Nuclear Capabilities" USNI (October 15, 2020).

<sup>&</sup>lt;sup>8</sup> Hans Kristensen, "No, China Does Not Have 3,000 Nuclear Weapons" (Federation of American Scientists: December 3, 2011). On Russia, Dr. Mark Schneider, former senior Defense Department official, commenting on Russian Defense Minister Shoigu's recent statement that Russia has constructed 597 ICBM launchers: "It is not possible to have a number anywhere like this high without a covert undeclared ICBM force." Schneider correspondence (October 15, 2020). "Orenburg Formation of Russian Strategic Missile Forces to Prepare for Deployment of 2 Avanguard Missile Complexes by Yearend—Shoigu" Interfax (October 13, 2020). On North Korea see: Dr. Peter Vincent Pry "Underestimating the North Korean Nuclear Threat" Secure Freedom Quarterly (2<sup>nd</sup> Quarter 2016).

<sup>&</sup>lt;sup>10</sup> Department of State, *2020 Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments* (Bureau of Verification and Compliance: 2020). Dr. Peter Vincent Pry, "How To Lose A War Without Firing A Shot?" The Hill (April 27, 2020). Dr. Peter Vincent Pry, "Arms Control Addiction" Newsmax (August 25, 2020). Dr. Peter Vincent Pry, "The Case Against Arms Control" RealClearDefense (January 12, 2019). For the fullest record of Soviet arms control violations during the Cold War see "GAC Report on Soviet

Although the State Department contends Russia is complying with New START, independent experts, like Dr. Mark Schneider, a former DOD senior official, make a compelling case that New START verification provisions are grossly inadequate. Russia could be far above New START levels, according to Schneider having perhaps 3,300 deployed warheads. Usually reliable independent Russian analysts, Pavel Felgengauer and Sergei Rogov, estimate Russia could have, operational and stockpiled, 6,000 strategic nuclear warheads and 10,000 tactical nuclear weapons, noting "the number and readiness state" of these weapons "has never been disclosed."<sup>11</sup>

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#### ICBM Warheads: Planning for the Worst-Case Scenario

As there are very significant unknowns and uncertainties about the number of adversary nuclear weapons, either "stockpiled" or supposedly "limited" by arms control, a better way of weighing the strategic nuclear balance may be by U.S. capability to respond to the worst-case scenario—an adversary "bolt from the blue" surprise attack. This amounts to the balance of ICBM warheads.

ICBMs, unlike U.S. strategic bombers and ballistic missile submarines, do not have to be generated to a survivable posture. All U.S. strategic bombers, none of which are maintained on strip-alert, and at least two-thirds of SSBNs, which are normally in port, would be destroyed in a surprise attack.

ICBMs, because of their high alert rates and responsiveness, are probably the only nuclear forces that would really matter in a worst-case scenario "bolt from the blue" surprise attack, which is likely to be an ICBM exchange. If U.S. ICBMs can deter or defeat the worst-case scenario, America may be safe from less challenging nuclear scenarios, and the unknowns about "nuclear stockpiles" and "operational warheads" unconstrained by arms control may not matter.

Russia probably greatly outnumbers the U.S., and China probably has at least parity, in the crucial category of ICBM warheads:

--Russia, in addition to having silo-based and mobile ICBMs, has armed its submarines with ICBMs (unlike U.S. SSBNs that carry IRBMs) so they can strike intercontinental targets from their ports, and have dockside C3 so they can launch while berthed.

Noncompliance Oct 1984" inside the coldwar.org which is the summary of the still classified President's General Advisory Committee on Arms Control and Disarmament, *A Quarter Century of Soviet Compliance Practices Under Arms Control Commitments: 1958-1983* (The White House: 1984).

<sup>&</sup>lt;sup>11</sup> Dr. Mark Schneider, "Does Russia Have 2-to-1 Advantage In Deployed Strategic Nuclear Weapons?" RealClearDefense (January 12, 2019). Pavel Felgengauer, "Kremlin Overrules Own Defense and Foreign Policy Establishment on Arms Control" Eurasia Daily Monitor (October 22, 2020).

--Russia, China, and North Korea have mobile ICBMs (the U.S. has no mobile ICBMs) because they are more survivable against a first strike, can better elude surveillance for "bean counting" and other intelligence purposes, *and by launching from unexpected locations can better execute a surprise attack*.

--Russia, China, and North Korea favor ICBMs over bombers and submarines because of their high-alert constant combat readiness to respond to, or initiate, surprise attack.

--Russia and China favor MIRVed ICBMs, armed with multiple warheads having yield/accuracy combinations for destroying hard targets like missile silos, so one ICBM can destroy many targets in a surprise attack. North Korea paraded possibly the world's largest MIRVed mobile ICBM.<sup>12</sup>

Russia's ICBMs like the SS-18 Mod 5 (10 warheads) and the Sarmat (Satan II, reportedly 10-15 hypersonic warheads) and China's DF-41 mobile ICBM (10-12 warheads) are ideal instruments for surprise attack.<sup>13</sup>

If Main Street USA is right and the most likely scenario is a "bolt from the blue" surprise attack, then the nuclear balance that matters most, perhaps the only firepower that really matters, are the ICBM warheads.

We do not know how many operational ICBM warheads are deployed by Russia and China, but the balance might well look like this: United States 400, Russia 1,000-3,300, China 400-1,000.<sup>14</sup>

Since Russia and China both have ICBMs that can achieve high (90%) single-shot kills against U.S. ICBMs silos, Russia has a preponderant advantage, and so might China, in what is arguably the most important dimension of the strategic nuclear balance. "Winning" a nuclear war, in theory if not in fact, relies on having the capability to make disarming counterforce attacks very promptly.

By this thinking, a policy that unilaterally abolishes U.S. ICBMs and relies only on strategic bombers and SSBNs, or only on a Monad of SSBNs, invites aggression.

 <sup>&</sup>lt;sup>12</sup> "North Korea Displays Huge New ICBM At Coronavirus-Defying Parade" AFP (October 10, 2020). Paul Crespo,
"North Korea Displays New Long-Range ICBM at Low Key Parade" American Defense News (October 13, 2020).
<sup>13</sup> "Russia's Hypersonic Ballistic Missile And Laser Systems In Final Tests, Putin Says" Moscow Times (April 11, 2019) describes Satan II as carrying "multiple hypersonic warheads" and "up to 15 warheads." Dan Stefano, "Russia

Tests New 'Satan 2' ICBM To Replace Original" wlky.com (March 30, 2018) Putin describes Satan 2 as carrying "a bigger number of nuclear warheads" and "more powerful."

<sup>&</sup>lt;sup>14</sup> 1,000 Russian ICBM warheads assumes they are complying with New START. Hans Kristensen and Robert Norris estimate Russia has 1,040 ICBM warheads in "Russian Nuclear Forces, 2016" Nuclear Notebook (Bulletin of the Atomic Scientists: 2016). Franz-Stefan Gady, "Russian General: Russia Now Fields 400 Intercontinental Ballistic Missiles" The Diplomat (December 16, 2016). 3,300 Russian ICBM warheads (includes SLBMs of intercontinental range) could be deployed now if Russia is cheating on New START, see excellent analysis of Dr. Mark Schneider, "Russian Nuclear Force Expansion and the Failure of Arms Control" RealClearDefense (October 24, 2019). Schneider, "Does Russia Have 2-to-1 Advantage In Deployed Strategic Nuclear Weapons?" in footnote 11. Correspondence with Dr. Schneider (October 11, 2020). 400-1,000 ICBM warheads for China, the range assumes a small clandestine force or larger clandestine force, both entirely plausible since 32 deployed DF-41 ICBMs alone can carry 320-384 warheads, and each DF-41 ICBM launcher is supposed to have at least one missile re-load (640-768 warheads). Alternatively, only 68 DF-41s would have to be hidden in China's Underground Great Wall, combined with the 32 deployed DF-41s, for 1,000 warheads.

An adversary surprise attack would have to strike just 5 targets—the 3 U.S. bomber bases and 2 SSBN ports—to destroy all U.S. nuclear bombers and two-thirds of SSBNs. This is presently within the capability of even North Korea.

#### **Exchange Modeling and Targeting Requirements**

The strategic nuclear balance is best assessed by force-on-force exchange modeling under the widest range of plausible scenarios, simulating various possible nuclear wars. Often so complex that the calculations are done by computers, the construction, execution, and outcomes of nuclear wargames yields the most accurate and nuanced understanding of the relative capabilities, strengths, and weaknesses of the opposing sides.<sup>15</sup>

As a practitioner of nuclear exchange modeling during the Cold War decades and afterwards, the vast complexity so consistently results in the same outcomes that the following lessons learned are almost axiomatic:

--He who strikes first wins;

--The U.S. wins, if it strikes first from a fully generated posture;

--U.S. force generation is highly visible and may result in the adversary striking first;

--The adversary (the USSR and now Russia) wins if they strike first, and is postured to do so without generating forces, relying only on ICBMs.

These lessons learned from decades of exchange modeling probably also apply to nuclear war between the U.S. and China, either now or soon, when China deploys enough DF-41 ICBMs to make a disarming counterforce attack on the U.S. target set: 400 ICBM silos, 3 bomber bases, and 2 SSBN bases. China's DF-41 ICBM is like a mobile version of the U.S. Peacekeeper ICBM, the most lethal strategic missile ever deployed by the United States.

The lessons learned above might also even apply to a nuclear war between the U.S. and North Korea.

As noted earlier, North Korea can destroy about two-thirds of the U.S. Triad by a surprise attack destroying just 5 targets—the 3 U.S. nuclear bomber bases and 2 SSBN bases. North Korea probably has Super-EMP weapons (generating 100 kilovolts/meter or more) which could enable it to damage missile, command and control electronics, and so paralyze U.S. ICBMs (which during the Cold War were EMP hardened to 50 kvs/meter).<sup>16</sup>

<sup>&</sup>lt;sup>15</sup> Dr. Peter Vincent Pry, *Nuclear Wars: Exchanges and Outcomes* (Crane Russak, Taylor & Francis: 1990) once used as a textbook at National Defense University is still a good introduction to the calculations and techniques of force-on-force nuclear exchange modeling.

<sup>&</sup>lt;sup>16</sup> "Threat Posed By Electromagnetic Pulse (EMP) Attack" Hearing before the House Armed Services Committee (January 10, 2008). EMP Commission, *Chairman's Report* (July 2017) pp. 23-25, all the unclassified EMP Commission reports are available at www.firstempcommission.org

These operational and technological realities suggest the real nuclear balance of capabilities between the U.S. and North Korea is much more dangerous than the "bean counting" comparisons often made in the press to dismiss the North Korean nuclear threat. The real nuclear balance between North Korea and the U.S. is not adequately or accurately captured by the ratio of North Korean operational warheads 30-60) vs. U.S. operational warheads (1,457), a 24-fold U.S. advantage; and much less so by the ratio North Korean operational warheads (30-60) vs. U.S. warheads in the nuclear stockpile (5,800), a 96-fold U.S. advantage.

Such false metrics may seem reassuring to the U.S. public and policymakers, but are dangerously misleading. The 120-pound weakling, armed with a gun, is a potentially mortal threat to anyone, including a much bigger and better armed and trained policeman.

Even more dangerously misleading is the arms control notion that "parity" in numbers of strategic nuclear weapons between the U.S. and Russia is equal security, and equal risk, for the sides. No arms control agreement, including New START, takes account of the great disparity in targeting requirements between the sides.

For example, unlike the U.S., Russia has many thousands of underground command posts and thousands of nuclear-capable SAMs protecting everything. From the exchange modeling and nuclear targeting perspective, arms control "parity" between the U.S. and Russia in numbers of strategic weapons very significantly disadvantages the United States. The same is true, or soon will be true, for the nuclear balance between the U.S. and China.

### The MADness of Minimum Deterrence

A Biden Administration that thinks like HASC Chairman Adam Smith may well reject all paradigms for assessing the nuclear balance and worry not at all about significant disparities and potential vulnerabilities. Or as Chairman Smith recently put it: "We have a nuclear arsenal that still envisions 'winning a nuclear war'...That's what I find insane."<sup>17</sup>

Chairman Smith advocates replacing the Triad of bombers, ICBMs, and SSBNs with a Monad of submarines, perhaps reduced from 14 to 6 SSBNs, a posture of "Minimum Deterrence."<sup>18</sup>

After an adversary surprise attack, residual U.S. nuclear forces for a fleet of 14 SSBNs would be the 4 SSBNs on patrol (240 warheads). Or if SSBNs are reduced to 6, residual U.S. nuclear forces would be the 2 SSBNs on patrol (120 warheads). This assumes the boats at sea are not destroyed or their EAM communications severed by EMP or other means.

Every SLBM fired in counterforce retaliation will subtract from the reserve intended to deter nuclear attacks on U.S. cities.

<sup>&</sup>lt;sup>17</sup> Mahshie, see footnote 1.

<sup>&</sup>lt;sup>18</sup> "Outside Perspectives on Nuclear Deterrence Policy and Posture" see footnote 2. Bruce Blair, who starred in the hearings, is credited with converting Rep. Adam Smith, Chairman of the House Armed Service Committees, to his extreme views on U.S. unilateral nuclear disarmament see: Jessica Sleight, Zia Minn, Frank Von Hippel, "Blair: Challenging The Accidental Nuclear War Machine" Bulletin of the Atomic Scientists (August 11, 2020).

During the Cold War, the criteria for Mutual Assured Destruction (MAD) against Russia required blasting 75% of industry and killing 25% of population, supposedly achievable with 400 Equivalent Megatons (EMTs).<sup>19</sup> MAD calculations did not include other nuclear capabilities necessary for counterforce attacks and warfighting, just the bottom-line for "city-busting."

The hope was that, if the U.S. could assuredly execute MAD even after a surprise attack, Russia would be deterred from attacking, or at least would not escalate a nuclear conflict to attacks on U.S. cities. MAD was the Cold War "Minimum Deterrent."

Today, if the U.S. Triad is reduced to a Monad of 14 or 6 SSBNs, after a surprise attack the residual 240 or120 U.S. warheads are far short of the 400 EMTs necessary for MAD.

Chairman Smith, Ploughshares, Union of Concerned Scientists and other anti-nuclear activists propose radical surgery on the U.S. Triad and unprecedented deep reduction of U.S. nuclear capabilities to dangerously deficient levels, offering no justification for their new "Minimum Deterrent"—except their conviction that nuclear warfighting is "insane."

Yet Russia, China, and North Korea are nuclear warfighters in their military planning, exercises, force posture and other behaviors (like nuclear blackmail)—and they are the ones the U.S. must deter, not Ploughshares.

Chairman Smith and the anti-nuclear Left believe, with the fervor of a secular religion, that nuclear weapons are "unusable" and nuclear war "unthinkable" to everyone, including Russia, China, and North Korea. To them, all these complicated calculations about the nuclear balance and exchange modeling are pointless and obfuscate the essential truth that the mere existence of a small number of U.S. nuclear weapons will be enough to deter.

If a Biden Administration follows their path, it will break radically with consensus strategic thinking that enabled the U.S. to prevail in the Cold War while deterring a thermonuclear World War III, gambling U.S. survival on fantasies of the Ploughshares, Union of Concerned Scientists and others of the "ban the bomb" Left.

The West has long nurtured in its universities and politics a radical minority cult that damns the United States for inventing the atomic bomb, the fruit of a social-political system they condemn as fundamentally evil. For the original sin of being itself, America must atone and suffer. 75 years after Hiroshima and Nagasaki, America's nihilists are on the threshold of getting their wish.

<sup>&</sup>lt;sup>19</sup> Robert S. McNamara, *The Fiscal Year 1969-1973 Defense Program and the 1969 Defense Budget*, Statement before the Senate Armed Services Committee (DOD: 1968) p. 50. Lawrence Friedman, *The Evolution of Nuclear Strategy* (1981) pp. 246-247. Russia can destroy 90% of U.S. industry and 40% of U.S. population with 100 EMTs because of their greater concentration in large urban-industrial areas. See Pry footnote 15 p. 222. Dr. Peter Vincent Pry, "Mutual Assured Destruction (MAD) No Longer Mutual: U.S. Unilaterally Vulnerable" Family Security Matters (March 14, 2018).